

CHAPTER 4

FERTILITY AND FERTILITY PREFERENCES

A major objective of NFHS-2 is to provide detailed information on fertility levels, differentials, and trends. This chapter presents a description of current and past fertility, cumulative fertility and family size, birth intervals, age at first cohabitation with husband, age at first and last birth, age at menopause, and durations of postpartum amenorrhoea, abstinence, and insusceptibility to pregnancy. Also discussed are fertility preferences, ideal and actual number of children, preference for sons or daughters, planning status of pregnancies, and wanted and actual total fertility rates.

Most of the fertility measures presented in this chapter are based on the complete birth histories collected from ever-married women age 15–49 years. Several measures and procedures were used to obtain complete and accurate reporting of births, deaths, and the timing of these events. First, women were asked a series of questions aimed at recording all the live births that had occurred in their lifetime. Second, for each live birth, the survey collected information on the age, sex, and survival status of the child. For dead children, age at death was recorded. Interviewers were given extensive training in probing techniques designed to help respondents report this information accurately. For example, interviewers were instructed to check any documents (such as horoscopes, school certificates, or vaccination cards) that might provide additional information on dates of birth and to probe for the reason for any birth interval of four or more years in order to prevent omission of births, especially of children who died soon after birth. Stillbirths, miscarriages, and induced abortions that occurred between live births were also recorded.

Despite these measures to improve data quality, NFHS-2 is subject to the same types of errors that are inherent in all retrospective sample surveys—namely, the omission of some births (especially births of children who died at a very young age) and the difficulty of determining the date of birth of each child accurately. These problems can bias estimates of fertility levels and trends.

4.1 Age at First Cohabitation

The number of children that a woman will have in her lifetime is strongly influenced by the age at which she marries. In Uttar Pradesh, however, formal marriage is not always immediately followed by cohabitation. Rather, the husband and the wife typically begin to cohabit only after the *gauna* ceremony. Even if *gauna* is not practised, a marriage may not be consummated immediately if it occurs at a very young age. In such instances, there is a difference between age at marriage and age at consummation of marriage. Age at consummation of marriage is, of course, what is relevant for fertility. NFHS-2 measured age at first cohabitation as a proxy for age at consummation of marriage. In Table 4.1, the median age at first cohabitation for a group of women is defined as the age by which half of the entire group began to cohabit, rather than the age by which half of all ever-cohabiting women in the group began to cohabit.

Table 4.1 shows that, in Uttar Pradesh, the median age at first cohabitation with the husband is 16.5 years for women age 20–49. The median age at first cohabitation increases

Table 4.1 Age at first cohabitation with husband							
Median age at first cohabitation with husband among women age 20–49 years by current age and selected background characteristics, Uttar Pradesh, 1998–99							
Background characteristic	Current age						
	20–24	25–29	30–34	35–39	40–49	20–49	25–49
Residence							
Urban	NC	18.9	18.5	17.9	17.4	18.6	18.2
Rural	16.7	16.2	15.9	15.9	15.8	16.1	16.0
Region							
Hill	19.5	17.8	17.6	17.1	16.7	17.8	17.3
Western	18.3	17.4	17.0	16.8	16.7	17.2	16.9
Central	16.7	16.5	15.7	15.6	15.7	16.0	15.9
Eastern	16.8	16.0	15.8	15.7	15.7	16.0	15.8
Bundelkhand	16.2	16.0	16.0	15.9	15.4	15.9	15.8
Education							
Illiterate	16.1	15.9	15.8	15.8	15.8	15.9	15.8
Literate, < middle school complete	17.8	16.8	16.8	16.1	16.5	16.8	16.6
Middle school complete	18.8	17.6	17.6	18.0	17.5	18.1	17.7
High school complete and above	NC	20.8	20.1	20.5	19.4	NC	20.3
Religion							
Hindu	17.3	16.5	16.3	16.1	16.0	16.4	16.2
Muslim	18.1	17.1	16.8	16.6	16.6	17.0	16.8
Sikh	*	*	*	*	*	18.9	(19.0)
Caste/tribe							
Scheduled caste	16.7	15.8	15.5	15.8	15.7	15.9	15.7
Scheduled tribe	(16.3)	(15.8)	(15.5)	(16.5)	(15.8)	15.9	15.8
Other backward class	16.7	16.0	15.9	15.7	15.7	16.0	15.8
Other	18.2	17.7	17.0	16.8	16.7	17.3	17.0
Standard of living index							
Low	15.7	15.8	15.5	15.8	15.6	15.7	15.7
Medium	17.2	16.5	16.2	15.9	16.0	16.4	16.1
High	NC	19.2	18.6	18.1	17.4	18.7	18.3
Total	17.4	16.6	16.3	16.2	16.1	16.5	16.3
NC: Not calculated because less than 50 percent of the women have started living with their husband by age 20							
() Based on 25–49 unweighted cases							
*Median not shown; based on fewer than 25 unweighted cases							

steadily from 16.1 for women age 40–49 to 17.4 for women age 20–24, suggesting a modest increase in the median age at first cohabitation, particularly in recent years.

For women age 20–49, the median age at first cohabitation is two and a half years higher for women in urban areas than in rural areas. The median age at first cohabitation has risen faster in urban areas than in rural areas, so the urban-rural gap has been widening over time. There is also a wide variation among regions, with the median age at first cohabitation lowest in the Bundelkhand Region, the Central Region, and the Eastern Region (15.9–16.0) and highest in the Hill Region (17.8). The median age at first cohabitation rises sharply with women's level of education. The median is higher for Sikh women (18.9 years) than for Muslims (17.0 years) or Hindus (16.4 years). The median age at first cohabitation is lower for women from scheduled castes, scheduled tribes, and other backward classes (15.9–16.0 years) than for women who do

not belong to any of these groups (17.3 years). The median age at first cohabitation is three years higher for women living in households with a high standard of living than for women living in households with a low standard of living.

4.2 Current Fertility Levels

NFHS-2 provides estimates of age-specific fertility rates (ASFR), total fertility rates (TFR), and crude birth rates (CBR) for the three-year period preceding the survey, which in Uttar Pradesh corresponds roughly to the period 1996–98. This three-year period was chosen as a compromise between the need to obtain recent information (suggesting the use of a short period close to the survey date) and the need to reduce sampling variation and minimize problems related to displacement of births from recent years to earlier years (suggesting the use of a longer period). The ASFR for any specific age group is calculated by dividing the number of births to women in the age group during the period 1–36 months preceding the survey by the number of woman-years lived by women in the age group during the same three-year time period. The TFR is a summary measure, based on the ASFRs, that gives the number of children a woman would bear during her reproductive years if she were to experience the ASFRs prevailing at the time of the survey. Mathematically, the TFR is calculated as five times the sum of all the ASFRs for the five-year age groups. The CBR is defined as the annual number of births per 1,000 population.

Based on estimates for the three-year period before NFHS-2, the CBR for Uttar Pradesh is estimated at 31.1 live births per 1,000 population, and the TFR is estimated at 3.99 births per woman, as shown in Table 4.2. The TFR estimate for Uttar Pradesh appears to be too low, partly because of omission of births but mainly because of the considerable displacement of births from the three years before the survey to earlier years (Retherford et al., 2001).

Table 4.2 shows that NFHS-2 fertility estimates are much lower in urban areas than in rural areas. The CBR is 29 percent lower in urban areas than in rural areas, and the urban TFR is 33 percent lower than the rural TFR. ASFRs are lower in urban areas than in rural areas for all age groups, as shown in Figure 4.1. Sixty-four percent of total fertility in urban areas and 57 percent in rural areas is concentrated in the prime childbearing ages of 20–29. Fertility at age 15–19 accounts for 10 percent of total fertility in urban areas, 16 percent in rural areas, and 15 percent overall, indicating that there is a substantial amount of early childbearing. For the state as a whole, fertility at ages 35 and older accounts for 11 percent of total fertility.

Based on estimates for the three-year periods preceding NFHS-1 and NFHS-2, the CBR fell from 36.0 to 31.1 between the two surveys, a decline of 14 percent in approximately six years. Over the same period, the TFR fell from 4.82 to 3.99, a decline of 17 percent. Table 4.2 and Figure 4.2 show that fertility fell for all age groups except age 15–19.

NFHS-2 fertility estimates can be compared with estimates from the Sample Registration System (SRS), which is maintained by the Office of the Registrar General, India. Since the NFHS-2 rates refer to 1996–98, it is appropriate to compare them with the SRS estimates for 1997, which are also shown in Table 4.2. The NFHS-2 estimate of the CBR, at 31.1, is lower than the SRS estimate of 33.5. The NFHS-2 estimate of the TFR (3.99) is 0.8 children lower than the SRS estimate of 4.79. The differences between the NFHS-2 and SRS estimates may be caused partly by age misreporting in NFHS-2, which tends to result in the displacement of births

Table 4.2 Current fertility

Age-specific and total fertility rates and crude birth rates from NFHS-1, NFHS-2, and the SRS by residence, Uttar Pradesh

Age	NFHS-1 (1990–92)		NFHS-2 (1996–98)		SRS (1997)		
	Total	Urban	Rural	Total	Urban	Rural	Total
15–19	0.113	0.057	0.137	0.120	0.025	0.043	0.040
20–24	0.278	0.195	0.272	0.256	0.198	0.260	0.248
25–29	0.251	0.173	0.217	0.208	0.221	0.281	0.271
30–34	0.177	0.095	0.137	0.127	0.152	0.208	0.198
35–39	0.094	0.040	0.071	0.064	0.075	0.124	0.115
40–44	0.037	0.012	0.020	0.018	0.047	0.066	0.062
45–49	0.014	0.004	0.006	0.006	0.014	0.025	0.023
TFR 15–44	4.75	2.86	4.27	3.96	3.59	4.91	4.67
TFR 15–49	4.82	2.88	4.31	3.99	3.66	5.04	4.79
CBR	36.0	23.5	33.0	31.1	27.9	34.6	33.5

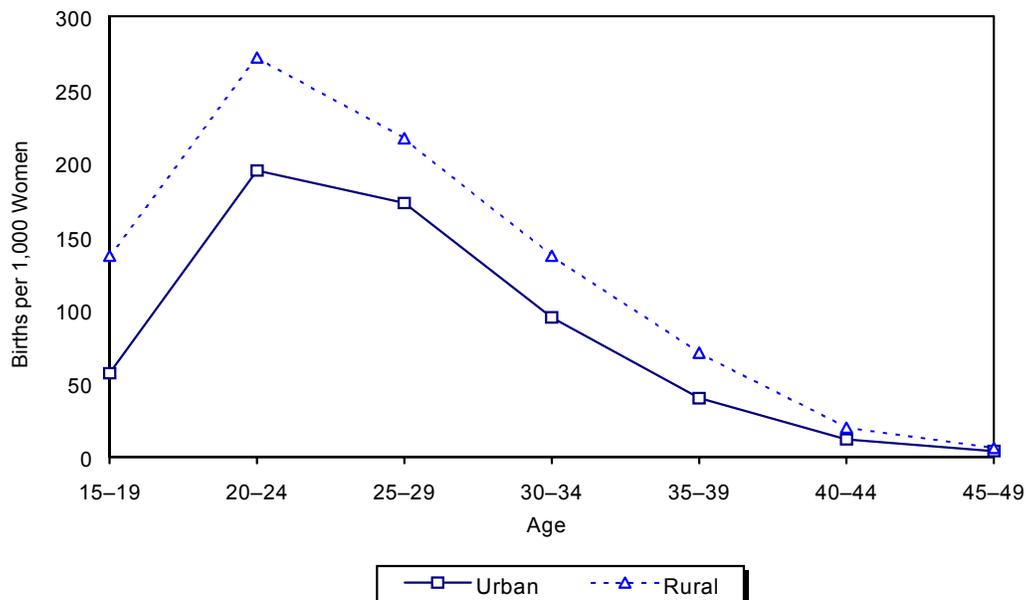
Note: Rates from NFHS-1 and NFHS-2 are for the period 1–36 months preceding the survey. Rates for the age group 45–49 might be slightly biased due to truncation. Rates from the SRS are for one calendar year. Age-specific and total fertility rates are expressed per woman.

TFR: Total fertility rate

CBR: Crude birth rate, expressed per 1,000 population

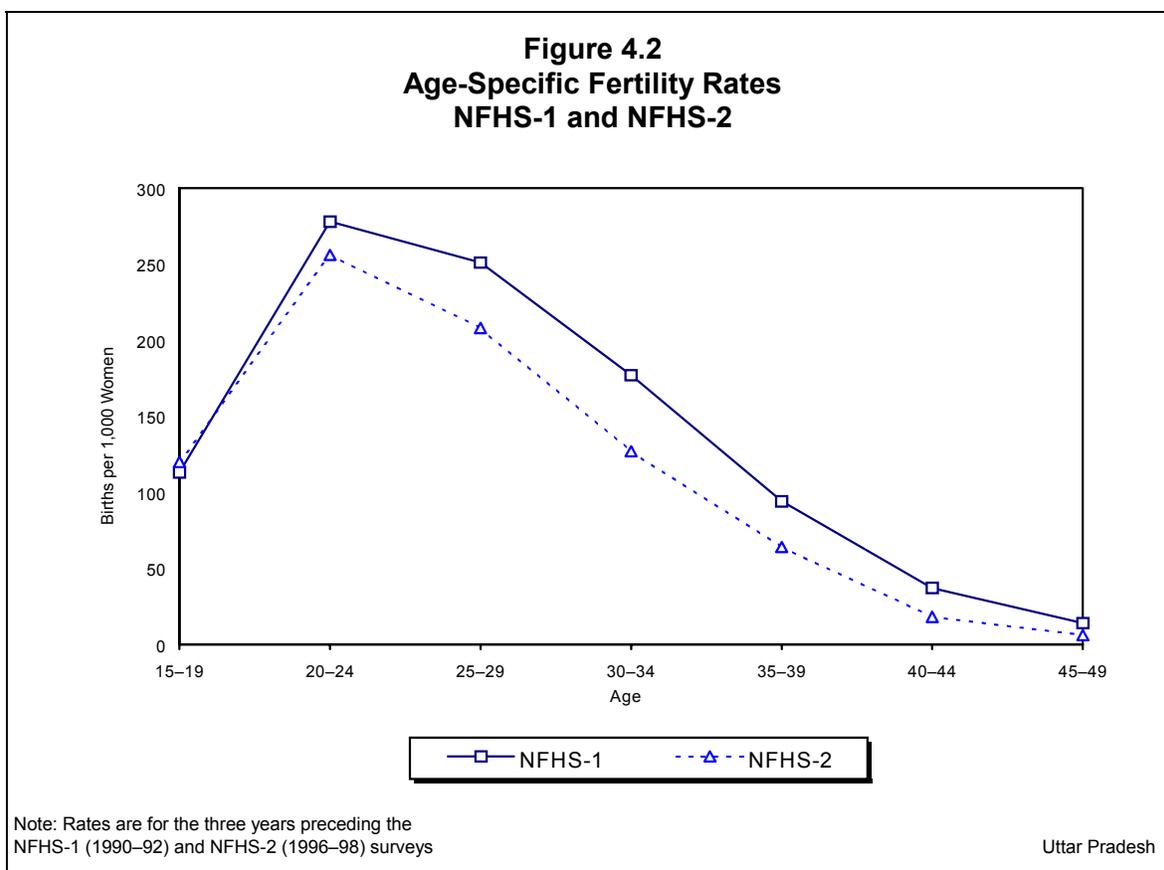
Source for SRS: Office of the Registrar General, 1999a

**Figure 4.1
Age-Specific Fertility Rates
by Residence**



Note: Rates are for the three years preceding the survey (1996–98)

NFHS-2, Uttar Pradesh, 1998–99



further into the past. Retrospective surveys, such as NFHS-1 and NFHS-2, are subject to such displacement, whereas the SRS, in which births are recorded during the year in which they occur, is not. Narasimhan et al. (1997) compared NFHS-1 and SRS estimates of fertility and concluded that both are probably underestimates. However, the SRS estimates are likely to be closer to the true level of fertility than either the NFHS-1 or NFHS-2 estimates (Retherford et al., 2001).

4.3 Fertility Differentials and Trends

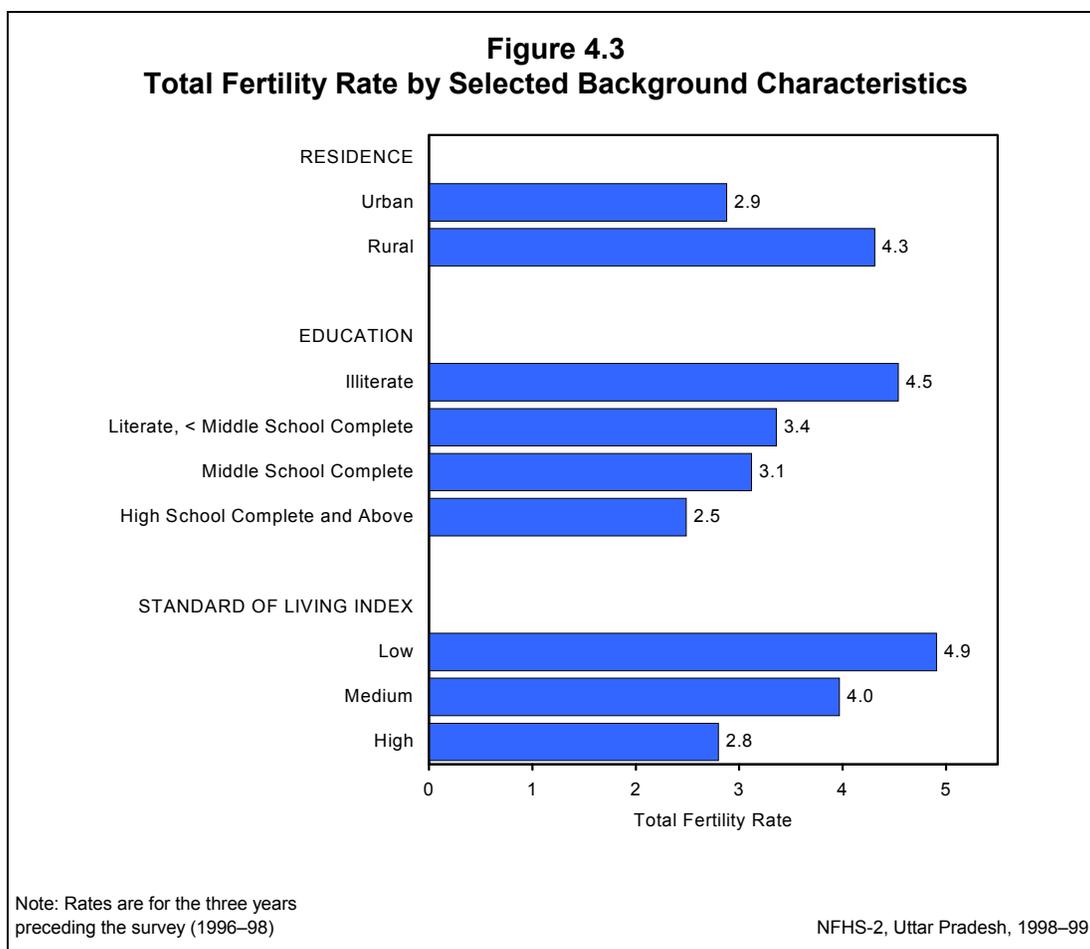
Table 4.3 and Figure 4.3 show how the TFR, the percentage currently pregnant, and the mean number of children ever born to women age 40-49 vary by selected background characteristics. In Uttar Pradesh, the TFR is more than two children higher among illiterate women than among women who have completed at least a high school education, nearly one child higher among Muslims than among Hindus, and more than two children higher among women in households with a low standard of living than among women in households with a high standard of living. The TFR is 4.8 among women from scheduled tribes, 4.4 among women from scheduled castes, 4.1 among women from other backward classes, and 3.8 among women who do not belong to any of these groups.

Fertility transitions in other countries have shown that fertility differentials typically diverge early in the transition and reconverge (though rarely completely) towards the end of the transition as fertility approaches the replacement level. Table 4.3 and Figure 4.3 indicate that in Uttar Pradesh there are still large fertility differentials, with the TFR and other fertility indicators varying widely among population groups. However, differentials are less pronounced for the

Table 4.3 Fertility by background characteristics			
Total fertility rate for the three years preceding the survey, percentage of all women age 15–49 currently pregnant, and mean number of children ever born to ever-married women age 40–49 by selected background characteristics, Uttar Pradesh, 1998–99			
Background characteristic	Total fertility rate ¹	Percentage currently pregnant ²	Mean number of children ever born to ever-married women age 40–49 years
Residence			
Urban	2.88	4.8	5.17
Rural	4.31	7.4	5.94
Region			
Hill	2.69	3.6	4.16
Western	4.17	7.7	5.74
Central	3.89	7.4	5.90
Eastern	4.02	6.1	5.94
Bundelkhand	3.95	6.5	5.84
Education			
Illiterate	4.54	7.7	6.13
Literate, < middle school complete	3.36	5.8	5.34
Middle school complete	3.12	5.0	4.46
High school complete and above	2.49	4.9	3.45
Religion			
Hindu	3.87	6.5	5.59
Muslim	4.76	8.3	6.81
Sikh	(2.34)	8.8	*
Caste/tribe			
Scheduled caste	4.44	6.8	5.90
Scheduled tribe	4.83	7.6	(6.20)
Other backward class	4.12	7.5	6.00
Other	3.77	6.5	5.44
Standard of living index			
Low	4.91	8.4	6.20
Medium	3.97	6.7	5.95
High	2.80	4.8	4.73
Total	3.99	6.8	5.76
() Based on 125–249 woman-years of exposure for the total fertility rate and 25–49 unweighted cases for the mean number of children ever born *Mean not shown; based on fewer than 25 unweighted cases ¹ Rate for women age 15–49 years ² For this calculation, it is assumed that women who are never married, widowed, divorced, separated, or deserted are not currently pregnant.			

mean number of children ever born to ever-married women age 40–49 than for the other two fertility variables in Table 4.3, undoubtedly because women in their forties had many of their births at an earlier stage of the fertility transition when fertility differentials were relatively small.

Overall, 7 percent of women in Uttar Pradesh report that they are currently pregnant (slightly higher than the national average of 6 percent). For the most part, differentials in the percentage currently pregnant follow a pattern similar to that for differentials in the TFR, but there are some exceptions. These exceptions may be due partly to the fact that the TFR is not



affected by the age structure, whereas the percentage currently pregnant is affected by the age structure.

The last column of Table 4.3 shows the mean number of children ever born to ever-married women age 40–49 at the time of the survey. The average number of children ever born for these women, who are at the end of their childbearing years, is 5.8. The substantial decline in fertility in Uttar Pradesh over time is evident from the difference of 1.8 children between the average number of children for women who are currently in their forties and the number of children women would have in their lifetime if they were subject to the current age-specific fertility rates (the last column and first column of Table 4.3). In most cases, the pattern of differentials in the mean number of children ever born parallels the pattern of differentials in the TFR. The differentials by region and caste/tribe are a partial exception. Exceptions can occur because the mean number of children ever born at age 40–49 reflects fertility in the past, whereas the TFR reflects fertility only in the three years preceding the survey.

The preceding section already discussed fertility trends based on estimates from NFHS-1 and NFHS-2 for the three-year period preceding each survey. Table 4.4 shows fertility trends for five-year time periods preceding NFHS-2, estimated solely from NFHS-2 birth histories. It is not possible to show TFRs in this table because of progressively greater age truncation as one goes back in time. For example, for the period 5–9 years preceding the survey, it is not possible to compute an ASFR for age 45–49 because the women in question would be 50–54 at the time of

Table 4.4 Fertility trends				
Age-specific fertility rates for five-year periods preceding the survey by residence, Uttar Pradesh, 1998–99				
Age	Years preceding survey			
	0–4	5–9	10–14	15–19
URBAN				
15–19	0.065	0.110	0.142	0.145
20–24	0.213	0.259	0.306	0.322
25–29	0.172	0.248	0.277	0.294
30–34	0.099	0.127	0.204	[0.258]
35–39	0.041	0.069	[0.123]	U
40–44	0.010	[0.018]	U	U
45–49	[0.004]	U	U	U
RURAL				
15–19	0.147	0.212	0.220	0.210
20–24	0.284	0.346	0.351	0.326
25–29	0.236	0.291	0.306	0.304
30–34	0.147	0.206	0.222	[0.258]
35–39	0.079	0.109	[0.140]	U
40–44	0.024	[0.055]	U	U
45–49	[0.008]	U	U	U
TOTAL				
15–19	0.129	0.190	0.203	0.194
20–24	0.269	0.327	0.340	0.325
25–29	0.222	0.280	0.299	0.302
30–34	0.135	0.187	0.217	[0.258]
35–39	0.070	0.100	[0.136]	U
40–44	0.021	[0.045]	U	U
45–49	[0.007]	U	U	U
Note: Age-specific fertility rates are expressed per woman.				
U: Not available				
[] Truncated, censored				

the survey, whereas NFHS-2 only collected birth histories for women up to age 49. Similarly, for the period 10–14 years preceding the survey, it is not possible to compute ASFRs for women age 40–49, and for the period 15–19 years preceding the survey, it is not possible to compute ASFRs for women age 35–49. Thus Table 4.4 shows only the truncated trends in ASFRs. Results are shown separately for urban and rural areas as well as for the entire state. These results show substantial fertility declines in all age groups. As mentioned earlier, however, these trends are distorted by displacement of births to earlier years, and this displacement tends to exaggerate the extent of fertility decline.

For the periods 0–4 years and 5–9 years before the survey, it is possible to calculate truncated TFRs (more appropriately called cumulative fertility rates, or CFRs) for the age range 15–39, based on the ASFRs shown in Table 4.4. This is done by summing ASFRs for the age groups 15–19 through 35–39 and multiplying the sum by five. For the state as a whole, CFR(15–39) declined from 5.4 to 4.1 between these two five-year periods, a decline of 1.3 children. The decline was 1.1 children for urban areas and 1.4 children for rural areas, indicating that the absolute level of fertility fell somewhat more rapidly in rural areas than in urban areas.

Table 4.5 Fertility by marital duration				
Fertility rates for ever-married women by duration since first cohabitation with husband (in years) and residence for five-year periods preceding the survey, Uttar Pradesh, 1998–99				
Duration since first cohabitation (in years)	Years preceding survey			
	0–4	5–9	10–14	15–19
URBAN				
< 5	0.318	0.344	0.361	0.333
5–9	0.209	0.257	0.315	0.361
10–14	0.130	0.195	0.254	0.279
15–19	0.074	0.109	0.168	(0.232)
20–24	0.022	0.048	(0.146)	*
25–29	0.013	(0.016)	*	U
RURAL				
< 5	0.288	0.326	0.309	0.275
5–9	0.292	0.344	0.356	0.340
10–14	0.219	0.283	0.293	0.297
15–19	0.139	0.185	0.211	0.255
20–24	0.066	0.103	0.142	*
25–29	0.022	0.061	*	U
TOTAL				
< 5	0.294	0.329	0.320	0.287
5–9	0.276	0.326	0.348	0.345
10–14	0.201	0.265	0.284	0.293
15–19	0.126	0.168	0.202	0.251
20–24	0.056	0.092	0.143	*
25–29	0.020	0.054	*	U
Note: Duration-specific fertility rates are expressed per woman. The duration since first cohabitation with husband is defined as the difference between the woman's age at the specific time period and her age when she began living with her husband. U: Not available () Based on 125–249 woman-years of exposure *Rate not shown; based on fewer than 125 woman-years of exposure				

Another way of looking at fertility is to calculate fertility rates by the number of years since first cohabitation with the husband. These rates are measures of marital fertility, i.e., fertility within marriage. Table 4.5 shows fertility rates by duration since first cohabitation for ever-married women over the entire 20-year period preceding the survey.¹ Fertility has declined at all durations, but more at longer durations than at shorter durations.

It is also evident from Table 4.5 that marital fertility is lower in urban areas than in rural areas for most durations and time periods. During the first five years after cohabitation, however, urban women have higher fertility than rural women. This pattern is not uncommon in populations in which the age at first cohabitation is higher in urban areas than in rural areas, as is the case in Uttar Pradesh (Table 4.1). Women who marry when they are older tend to have their first birth sooner after marriage and concentrate their births earlier in their marriages than women

¹Since NFHS-2 collected information only on a woman's age at the time of first cohabitation and not on the year and month when she first began cohabiting with her husband, the exact number of months since first cohabitation cannot be calculated. For this reason, the first year since cohabitation contains only six months, on average, and the first five years since cohabitation contain only 4.5 years, on average.

who marry when they are younger (Basu, 1993; Pandey et al., 1990). In addition, because breastfeeding is shorter in urban areas (see Table 7.8), another contributing factor may be a shorter period of postpartum amenorrhoea, which results in shorter birth intervals in the absence of the use of contraception (which is rarely practised in Uttar Pradesh during the first few years of marriage). However, greater displacement of births in rural than in urban areas may account for some of the observed differences.

4.4 Children Ever Born and Living

The number of children a woman has ever borne is a cohort measure of fertility. Because it reflects fertility in the past, it provides a somewhat different picture of fertility levels, trends, and differentials than do period measures of fertility such as the CBR and the TFR. Table 4.6 shows the percent distribution of all women and currently married women by the number of children ever born (CEB). The table shows these distributions by the age of the woman at the time of the survey and also shows the mean number of children ever born and living children.

Among women age 15–49, the mean number of children ever born is 2.9 for all women and 3.6 for currently married women. The mean number of children ever born increases steadily with women's age, reaching a high of 5.8 children among all women age 45–49 and 5.9 among currently married women in this age group. The table also shows that early childbearing is fairly common in Uttar Pradesh. Eighteen percent of all women age 15–19 and 47 percent of currently married women age 15–19 have already had a child.

For women age 45–49, the number of children ever born is of particular interest because these women have virtually completed their childbearing. For all women in this age group, irrespective of marital status, the modal number of children ever born is six. Sixteen percent of all women age 45–49 and 17 percent of currently married women in this age group have reached the end of childbearing with six children ever born. More than half of currently married women in this age group (56 percent) have had six or more live births. Only 2 percent of currently married women age 45–49 have never given birth, suggesting that primary infertility (which is the proportion of couples who are unable to have any children) is very low in Uttar Pradesh.

For all women age 15–49, the average number of children who died is 0.49 per woman. For currently married women, the average number of dead children is 0.59, indicating that 17 percent of children ever born to currently married women have died. For currently married women, the proportion of children ever born who have died increases from 14 percent for women age 15–19 to 24 percent for women age 45–49.

4.5 Birth Order

The distribution of births by birth order is yet another way to view fertility. Table 4.7 shows the distribution of births during the three-year period preceding the survey by birth order for selected background characteristics. Overall, as expected, the proportion of births at each order is larger than the proportion of births at the next higher order. Twenty-two percent of all births are first-order births, 20 percent are second-order births, and 18 percent are third-order births. The high proportion of births of order four or higher (40 percent), compared with the national average of 28 percent, is another indication of the relatively high level of fertility in Uttar Pradesh.

Table 4.6 Children ever born and living

Percent distribution of all women and of currently married women by number of children ever born (CEB) and mean number of children ever born and living, according to age, Uttar Pradesh, 1998–99

Age	Children ever born											Total percent	Number of women	Mean number of CEB	Mean number of living children
	0	1	2	3	4	5	6	7	8	9	10+				
ALL WOMEN															
15–19	81.8	13.0	4.2	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	100.0	2,852	0.24	0.21
20–24	31.6	20.9	23.4	16.7	5.0	1.8	0.5	0.0	0.0	0.0	0.0	100.0	2,158	1.50	1.31
25–29	7.6	8.8	19.2	24.3	19.7	11.7	5.9	2.0	0.6	0.2	0.0	100.0	1,824	3.13	2.73
30–34	3.5	3.0	10.7	16.0	18.9	18.6	13.4	8.6	4.0	2.1	1.2	100.0	1,526	4.45	3.77
35–39	2.0	2.7	7.7	13.9	16.4	15.4	15.1	13.1	6.3	4.1	3.2	100.0	1,295	5.06	4.24
40–44	1.9	1.8	5.5	9.0	14.2	15.6	14.0	14.4	10.2	6.3	7.1	100.0	1,026	5.73	4.53
45–49	1.8	2.0	5.1	10.8	12.5	13.5	15.9	12.3	12.0	6.7	7.4	100.0	756	5.80	4.41
Total	28.6	9.6	11.7	12.4	10.6	8.7	6.9	5.1	3.0	1.8	1.6	100.0	11,438	2.91	2.42
CURRENTLY MARRIED WOMEN															
15–19	53.3	33.4	11.0	1.8	0.5	0.0	0.0	0.0	0.0	0.0	0.0	100.0	1,102	0.63	0.54
20–24	18.9	24.6	27.8	19.8	6.1	2.2	0.7	0.0	0.0	0.0	0.0	100.0	1,791	1.79	1.56
25–29	4.4	8.7	19.5	25.5	20.5	12.1	6.3	2.2	0.6	0.2	0.0	100.0	1,724	3.26	2.84
30–34	2.0	2.9	10.4	16.4	19.4	18.9	13.8	8.9	4.1	2.1	1.2	100.0	1,463	4.54	3.84
35–39	1.3	2.3	7.4	14.0	16.6	15.1	15.5	13.6	6.7	4.3	3.2	100.0	1,224	5.14	4.32
40–44	1.4	1.6	5.3	9.1	14.5	15.7	14.1	14.4	10.2	6.4	7.3	100.0	946	5.78	4.60
45–49	1.7	1.6	5.1	10.5	11.6	13.9	17.0	12.4	12.2	6.9	7.2	100.0	668	5.85	4.46
Total	12.0	11.8	14.4	15.5	13.1	10.7	8.5	6.2	3.7	2.2	2.0	100.0	8,918	3.57	2.98

Table 4.7 Birth order

Percent distribution of births during the three years preceding the survey by birth order, according to selected background characteristics, Uttar Pradesh, 1998–99

Background characteristic	Birth order				Total percent	Number of births
	1	2	3	4+		
Mother's current age						
15–19	71.6	23.1	4.3	1.0	100.0	552
20–29	20.1	26.2	24.6	29.2	100.0	2,765
30–39	1.2	4.6	9.6	84.6	100.0	1,013
40–49	0.0	2.3	2.7	95.0	100.0	101
Residence						
Urban	24.8	24.7	16.9	33.6	100.0	714
Rural	21.1	19.5	18.3	41.1	100.0	3,717
Region						
Hill	24.0	25.1	19.5	31.3	100.0	148
Western	21.3	20.8	17.7	40.2	100.0	1,695
Central	23.3	19.9	19.2	37.7	100.0	735
Eastern	21.2	19.8	17.9	41.0	100.0	1,664
Bundelkhand	21.6	18.9	18.2	41.2	100.0	189
Mother's education						
Illiterate	18.2	17.3	17.4	47.2	100.0	3,201
Literate, < middle school complete	21.9	22.9	22.5	32.8	100.0	496
Middle school complete	34.4	27.9	18.7	18.9	100.0	299
High school complete and above	38.8	34.2	18.3	8.7	100.0	436
Religion						
Hindu	22.5	20.7	18.6	38.2	100.0	3,536
Muslim	18.3	18.2	16.2	47.4	100.0	862
Caste/tribe						
Scheduled caste	19.6	18.3	17.3	44.8	100.0	947
Scheduled tribe	17.5	24.0	14.5	44.0	100.0	99
Other backward class	20.9	18.9	18.6	41.7	100.0	1,217
Other	23.7	22.2	18.3	35.8	100.0	1,961
Mother's work status						
Working in family farm/business	11.7	15.5	19.8	52.9	100.0	457
Employed by someone else	8.0	15.1	14.0	63.0	100.0	290
Self-employed	16.4	8.7	21.3	53.5	100.0	114
Not worked in past 12 months	24.3	21.8	18.1	35.8	100.0	3,565
Standard of living index						
Low	16.9	15.6	16.2	51.3	100.0	1,443
Medium	22.4	20.9	18.9	37.8	100.0	2,297
High	30.8	29.7	19.6	19.9	100.0	603
Total	21.7	20.3	18.1	39.9	100.0	4,432

Note: Total includes 17 and 9 births to Sikh women and women with 'other' religions and 8, 206, 5, and 89 births with missing information on religion, caste/tribe, mother's work status, and the standard of living index, respectively, which are not shown separately.

Over 70 percent of births to women age 15–19 are first-order births. By contrast, 85 percent of births to women age 30–39 and 95 percent of births to women age 40–49 are of order four or higher. The proportion of births that are of order four or higher is much lower in the Hill Region (31 percent) than in any other region (38–41 percent). The proportion of births that are of order four or higher is relatively large for births to rural women, illiterate women, Muslim women, scheduled-caste and scheduled-tribe women, working women, and women in households with a low standard of living. The range is particularly wide for education groups: 47 percent of births to illiterate women are of order four or higher, compared with 9 percent of births to women who have at least completed high school. The range is also wide according to the household standard of living: 51 percent of births to women in households with a low standard of living are of order four or higher, compared with 20 percent of births to women in households with a high standard of living. Only 36 percent of births to women who did not work during the 12 months preceding the survey are of order four or higher. This finding can be partly explained by the fact that nonworking women come disproportionately from urban areas, where fertility is relatively low.

4.6 Birth Intervals

A birth interval, defined as the length of time between two successive live births, indicates the pace of childbearing. Short birth intervals may adversely affect a mother's health and her children's chances of survival. Past research has shown that children born too close to a previous birth are at increased risk of dying, especially if the interval between the births is less than 24 months (Pandey et al., 1998; Govindasamy et al., 1993).

Table 4.8 shows the percent distribution of births during the five years preceding the survey by birth interval according to selected demographic and socioeconomic background characteristics. In Uttar Pradesh, 14 percent of births occur within 18 months of a previous birth and 29 percent occur within 24 months. Thirty-seven percent of births occur after an interval of three years or more.

The median birth interval in Uttar Pradesh is 30 months. The median birth interval ranges from 25 months for women age 15–19 to 34 months for women age 30–49. The relatively short birth interval for women age 15–19 may result partly from a selection effect: Only women who have had two or more births are included in the table, and women age 15–19 with more than one birth are likely to have shorter birth intervals due to high fecundity. Given the finding that the median birth interval increases with mother's age, it is surprising that it does not also increase substantially with the order of the previous birth. Perhaps this is due to the absence of the selection effect just noted. There may also be another type of selection effect operating: Mothers of higher-order births may be more fecund, on average, than mothers of lower-order births.

The median birth interval is about one and a half months longer if the previous birth was a boy than if it was a girl. This pattern may result partly from the shorter duration of breastfeeding for girls, which is indicative of son preference (Table 7.8). The median birth interval is six months shorter if the previous child died than if it survived. In part, this reflects the shortening of postpartum amenorrhoea that occurs when the preceding child dies in infancy and breastfeeding stops prematurely.

Table 4.8 Birth interval

Percent distribution of births during the five years preceding the survey by interval since previous birth and median number of months since previous birth, according to selected background characteristics, Uttar Pradesh, 1998–99

Background characteristic	Months since previous birth						Total percent	Median months since previous birth	Number of births
	< 12	12–17	18–23	24–35	36–47	48+			
Mother's current age									
15–19	4.1	23.4	16.8	35.8	18.5	1.4	100.0	25.1	172
20–29	3.3	12.3	16.2	35.7	20.1	12.3	100.0	28.6	3,595
30–39	2.8	8.1	12.4	30.7	22.1	23.9	100.0	34.3	2,012
40–49	4.0	8.8	12.8	28.4	17.3	28.7	100.0	33.7	267
Residence									
Urban	3.2	10.5	15.1	31.0	20.0	20.2	100.0	31.3	906
Rural	3.2	11.2	14.8	34.2	20.7	15.9	100.0	30.2	5,140
Region									
Hill	2.3	9.0	12.0	31.2	22.9	22.6	100.0	33.7	190
Western	4.6	12.8	14.9	32.1	19.9	15.7	100.0	29.4	2,295
Central	1.8	10.3	14.3	36.3	21.6	15.7	100.0	31.1	984
Eastern	2.6	9.7	15.4	34.7	20.4	17.3	100.0	30.7	2,312
Bundelkhand	2.8	12.7	14.1	31.3	22.2	17.0	100.0	30.8	265
Mother's education									
Illiterate	3.4	11.2	14.4	33.4	20.9	16.7	100.0	30.7	4,682
Literate, < middle school complete	2.1	10.2	16.5	36.3	19.6	15.3	100.0	29.3	673
Middle school complete	3.3	9.1	16.6	37.0	19.3	14.7	100.0	27.8	299
High school complete and above	2.7	12.2	15.9	30.6	19.9	18.7	100.0	30.3	393
Religion									
Hindu	3.1	10.4	14.7	33.6	21.4	16.8	100.0	30.9	4,794
Muslim	3.8	13.4	15.3	34.7	17.1	15.8	100.0	28.5	1,204
Sikh	(0.0)	(23.0)	(21.5)	(20.1)	(21.5)	(14.0)	100.0	(25.3)	27
Caste/tribe									
Scheduled caste	3.6	9.8	13.5	34.5	24.0	14.6	100.0	30.8	1,313
Scheduled tribe	2.7	9.6	16.1	38.6	17.1	15.9	100.0	29.5	134
Other backward class	2.3	10.3	15.9	33.8	19.8	17.9	100.0	30.6	1,702
Other	3.8	12.2	14.8	33.1	19.2	16.9	100.0	30.1	2,577
Standard of living index									
Low	3.5	10.4	15.4	34.6	20.5	15.7	100.0	30.2	2,160
Medium	3.2	11.6	14.2	33.7	20.6	16.7	100.0	30.4	3,104
High	2.2	11.2	16.5	30.1	20.7	19.3	100.0	30.9	660
Order of previous birth									
1	3.1	12.7	15.9	31.0	20.2	17.1	100.0	30.0	1,560
2	2.9	9.6	15.4	36.0	20.7	15.3	100.0	30.5	1,307
3	1.8	12.0	15.0	34.3	20.2	16.8	100.0	30.8	985
4+	4.1	10.4	13.7	34.0	20.9	16.9	100.0	30.4	2,194

Contd...

Table 4.8 Birth interval (contd.)									
Percent distribution of births during the five years preceding the survey by interval since previous birth and median number of months since previous birth, according to selected background characteristics, Uttar Pradesh, 1998–99									
Background characteristic	Months since previous birth						Total percent	Median months since previous birth	Number of births
	< 12	12–17	18–23	24–35	36–47	48+			
Sex of previous birth									
Male	3.1	10.9	14.3	33.0	21.5	17.3	100.0	31.3	2,991
Female	3.3	11.3	15.4	34.4	19.7	15.9	100.0	29.6	3,055
Survival of previous birth									
Living	2.6	9.5	14.5	34.5	21.7	17.3	100.0	31.4	5,232
Dead	7.1	21.4	17.2	28.9	13.3	12.0	100.0	25.0	814
Total	3.2	11.1	14.8	33.7	20.6	16.6	100.0	30.4	6,046
Note: Table includes only second- and higher-order births. The interval for multiple births is the number of months since the preceding pregnancy that ended in a live birth. Total includes 12 births whose mothers belong to other religions and 9, 320, and 122 births with missing information on religion, caste/tribe, and the standard of living index, respectively, which are not shown separately.									
() Based on 25–49 unweighted cases									

Birth intervals are one month longer for births to women in urban areas than to women in rural areas. There is greater variation by region: Median birth intervals range from 29 months in the Western Region to 34 months in the Hill Region. Birth intervals vary irregularly by mother's education, with the highest median for illiterate women (31 months) and the lowest median for women who have completed middle school (28 months). The median birth interval is more than two months longer for births to Hindu women than for births to Muslim women. There is very little difference in birth intervals by caste/tribe group or the standard of living of the household.

4.7 Age at First and Last Birth

The ages at which women start and stop childbearing are important demographic determinants of fertility. A higher median age at first birth and a lower median age at last birth are indicators of lower fertility. Table 4.9 shows the median age at first birth for various age groups by selected background characteristics. In this table, the median age at first birth for any group of women is defined as the age by which half of all women in the group have had a first birth, rather than the age by which half of all mothers in the group have had a first birth. If the median age at first birth calculated for an age group lies above the lower limit of that age group, it is not valid because some younger women in the age group who have not yet had a first birth will not have reached the median age by the time of the survey. In such cases, the estimate of the median is not shown.

As shown in the last row of the table, the median age at first birth in Uttar Pradesh has varied irregularly over time. The median for women age 20–24, at 19.6 years, is almost the same as the median for women age 45–49, at 19.5 years. In between, the median is as low as 18.7 years for women age 30–34. For women age 25–49, the median age at first birth ranges from 18.5 years in the Bundelkhand Region to 20.1 years in the Hill Region. It is nearly the same for Muslim women (18.8) and Hindu women (19.0).

Table 4.9 Median age at first birth

Median age at first birth among women age 20–49 years by current age and selected background characteristics, Uttar Pradesh, 1998–99

Background characteristic	Current age							
	20–24	25–29	30–34	35–39	40–44	45–49	20–49	25–49
Residence								
Urban	NC	21.2	20.0	20.2	19.9	20.3	NC	20.3
Rural	19.1	18.6	18.4	18.9	18.5	19.3	18.8	18.7
Region								
Hill	NC	20.3	20.0	20.0	20.1	20.1	NC	20.1
Western	20.0	19.4	19.0	19.5	19.4	20.1	19.5	19.4
Central	19.4	19.2	18.5	18.8	18.6	19.0	18.9	18.8
Eastern	19.1	18.4	18.5	18.9	18.2	19.2	18.7	18.6
Bundelkhand	18.8	18.1	18.1	19.6	18.4	18.8	18.6	18.5
Education								
Illiterate	18.5	18.3	18.3	18.7	18.5	19.1	18.5	18.5
Literate, < middle school complete	19.3	19.0	19.0	19.3	18.7	20.1	19.2	19.1
Middle school complete	NC	19.5	19.1	20.6	(19.9)	(19.9)	NC	19.8
High school complete and above	NC	22.6	22.1	22.2	21.4	22.3	NC	22.3
Religion								
Hindu	19.6	18.9	18.7	19.2	18.8	19.5	19.1	19.0
Muslim	19.5	18.9	18.4	18.8	18.9	19.5	18.9	18.8
Sikh	*	*	*	*	*	*	NC	(21.1)
Caste/tribe								
Scheduled caste	18.8	18.2	18.2	19.0	18.1	19.4	18.5	18.5
Scheduled tribe	(19.5)	(18.8)	(17.6)	*	*	*	18.9	18.7
Other backward class	19.1	18.5	18.4	18.8	18.6	18.8	18.7	18.6
Other	NC	19.6	19.4	19.5	19.3	20.0	19.7	19.5
Standard of living index								
Low	18.0	18.0	17.9	19.0	18.5	18.8	18.2	18.2
Medium	19.3	18.9	18.7	18.9	18.6	19.5	19.0	18.9
High	NC	21.3	20.7	20.8	19.7	20.6	NC	20.7
Total	19.6	18.9	18.7	19.2	18.8	19.5	19.1	19.0

NC: Not calculated because less than 50 percent of women had their first birth by age 20
 () Based on 25–49 unweighted cases
 *Median not shown; based on fewer than 25 unweighted cases

The median age at first birth is particularly low among women who live in rural areas, women who are illiterate, and women who live in households with a low standard of living. The median age at first birth is one and a half years lower in rural areas (18.7) than in urban areas (20.3) and nearly four years lower for illiterate women (18.5) than for women who have completed at least high school (22.3). The median is two and a half years lower for women in households with a low standard of living (18.2) than for women in households with a high standard of living (20.7).

For older women, the age at last childbirth is an indicator of cessation of childbearing. Table 4.10 presents the distribution of ever-married women age 40–49 by age at last birth, as well as the median age at last birth. Although a few of these women may have another birth later on, the very low fertility rates for women in this age group suggest that childbearing is virtually

Table 4.10 Age at last birth											
Percent distribution of ever-married women age 40–49 years by age at last birth and median age at last birth, according to current age, Uttar Pradesh, 1998–99											
Current age	No birth	Age at last birth							Total percent	Median age at last birth	Number of women
		< 20	20–24	25–29	30–34	35–39	40–44	45–49			
40–44	1.7	1.2	9.1	24.3	33.8	25.1	4.7	NA	100.0	32.1	1,025
45–49	1.7	0.5	7.9	20.2	32.6	25.2	10.4	1.4	100.0	32.4	756
40–49	1.7	0.9	8.6	22.6	33.3	25.2	7.1	0.6	100.0	32.2	1,781
NA: Not applicable											

complete by these ages. Thirty-two percent of women in this age group had their last birth by age 30, 65 percent by age 35, and 91 percent by age 40. The median age at last birth is 32 years for women age 40–44 and women age 45–49. The typical reproductive age span (which is the difference between the median age at last birth and the median age of first birth for women who have ever had a birth) is considerably longer in Uttar Pradesh (13.4 years) than in India as a whole (9.9 years), consistent with the higher level of fertility in Uttar Pradesh (see International Institute for Population Sciences and ORC Macro, 2000: Table 4.15).

4.8 Postpartum Amenorrhoea, Abstinence, Insusceptibility, and Menopause

Among the factors that influence the risk of pregnancy following a birth are breastfeeding and sexual abstinence. Breastfeeding prolongs postpartum protection from conception through its effect on the period of amenorrhoea (the period prior to the return of menses) following a birth. Delaying the resumption of sexual relations following a birth also prolongs the period of postpartum protection. Women are defined as insusceptible to pregnancy following a birth if they are not at risk of conception because they are amenorrhoeic, abstaining from sexual relations, or both.

Table 4.11 shows the percentage of births occurring during the three years preceding the survey whose mothers are postpartum amenorrhoeic, abstaining, or insusceptible, by the number of months since the birth. These distributions are based on current status information, that is, on the proportions of births occurring within the 36 months before the survey whose mothers were amenorrhoeic, abstaining, or insusceptible. In other words, the table is based on cross-sectional data and does not represent the experience of a real cohort of births over time. The data are grouped in two-month intervals to minimize fluctuations in the distributions. The table also shows median and mean durations of amenorrhoea, abstinence, and insusceptibility. The prevalence/incidence mean is obtained by dividing the number of mothers who are amenorrhoeic, abstaining, or insusceptible by the average number of births per month over the 36-month period.

Eighty-five percent of women who had a birth less than two months before the survey and 76 percent of women who had a birth 2–3 months before the survey are still amenorrhoeic. The proportion amenorrhoeic gradually decreases as the number of months since the birth increases. About half of all women who had a birth 8–9 months before the survey are still amenorrhoeic, and the proportion amenorrhoeic declines rapidly thereafter. The proportion of women abstaining from sexual intercourse within two months after a birth is only slightly lower than the proportion

Table 4.11 Postpartum amenorrhoea, abstinence, and insusceptibility

Percentage of births during the three years preceding the survey whose mothers are postpartum amenorrhoeic, abstaining, or insusceptible by number of months since birth, and median and mean durations, Uttar Pradesh, 1998–99

Months since birth	Percentage of births whose mothers are:			Number of births
	Amenorrhoeic	Abstaining	Insusceptible	
< 2	85.1	78.3	96.2	214
2–3	76.2	40.9	83.9	354
4–5	63.2	26.6	68.1	269
6–7	60.7	18.1	65.5	257
8–9	50.5	17.6	55.7	225
10–11	42.6	14.2	48.6	170
12–13	33.5	6.6	36.1	257
14–15	25.7	7.8	30.0	288
16–17	18.4	4.7	21.2	319
18–19	9.8	3.2	12.6	208
20–21	10.4	3.6	12.5	179
22–23	14.4	3.7	16.5	187
24–25	8.6	4.5	11.6	228
26–27	3.1	2.6	5.4	297
28–29	4.0	4.0	6.9	298
30–31	2.7	3.4	5.8	267
32–33	0.9	0.6	1.4	194
34–35	5.2	3.0	7.6	188
Median ¹	9.0	2.3	9.8	NA
Mean	10.6	5.2	12.0	NA
Prevalence/incidence mean	10.6	5.0	12.0	NA

Note: Median and mean durations are based on current status. Insusceptible is defined as amenorrhoeic, abstaining, or both.
 NA: Not applicable
¹Based on a three-period moving average of percentages

amenorrhoeic, but only 41 percent of women are still abstaining 2–3 months after a birth, and this percentage declines rapidly thereafter. Overall, when amenorrhoea and abstinence are considered together, about half of women are susceptible to pregnancy 10–11 months after giving birth, and 70 percent are susceptible 14–15 months after giving birth.

The median and mean durations of insusceptibility are 10 and 12 months, respectively. Because the mean is affected by extreme values and the median is not, and because the distribution is skewed towards the higher durations, the mean is somewhat higher than the median. The median duration of amenorrhoea (9 months) is four times the median duration of abstinence (2 months). These results indicate that women in Uttar Pradesh remain insusceptible to pregnancy for about one year after a birth, primarily due to the effect of postpartum amenorrhoea.

Menopause is a primary limiting factor of fertility. It is the culmination of a gradual decline in fecundity with increasing age. After age 30, the risk of pregnancy declines with age as an increasing proportion of women become infecund. In NFHS-2, menopause is defined as the absence of menstruation for six or more months preceding the survey among currently married women. Women who report that they are menopausal or that they have had a hysterectomy are also included in this category. Women who are pregnant or postpartum amenorrhoeic are

Table 4.12 Menopause						
Percentage of currently married women age 30–49 years who are in menopause by age and residence, Uttar Pradesh, 1998–99						
Age	Urban		Rural		Total	
	Percentage	Number	Percentage	Number	Percentage	Number
30–34	2.6	329	2.0	1,133	2.1	1,463
35–39	8.2	309	7.0	915	7.3	1,224
40–41	16.2	89	21.2	342	20.2	431
42–43	25.5	96	33.3	278	31.3	374
44–45	38.5	79	43.5	250	42.3	329
46–47	66.9	70	55.6	206	58.5	276
48–49	67.8	53	69.2	151	68.8	205
30–49	18.1	1,025	17.7	3,276	17.8	4,301

Note: Percentage menopausal is defined as the percentage of currently married women who are not pregnant and not postpartum amenorrhoeic and who reported that their last menstrual period occurred six or more months preceding the survey or that they are menopausal or have had a hysterectomy.

assumed not to be menopausal. Table 4.12 presents data on menopause among women age 30–49 years. In Uttar Pradesh, menopause is not common among women in their thirties, but its incidence increases rapidly after age 40. By age 42–43, 31 percent of women are menopausal. The proportion menopausal rises to 59 percent by age 46–47 and to 69 percent by age 48–49.

4.9 Desire for More Children

In order to obtain information on fertility preferences, NFHS-2 asked nonsterilized, currently married, nonpregnant women: ‘Would you like to have (a/another) child or would you prefer not to have any (more) children?’ Pregnant women were asked, ‘After the child you are expecting, would you like to have another child or would you prefer not to have any more children?’ Women who expressed a desire for additional children were asked how long they would like to wait before the birth of their next child. The survey also collected information on the preferred sex of the next child and the ideal number of children by sex.

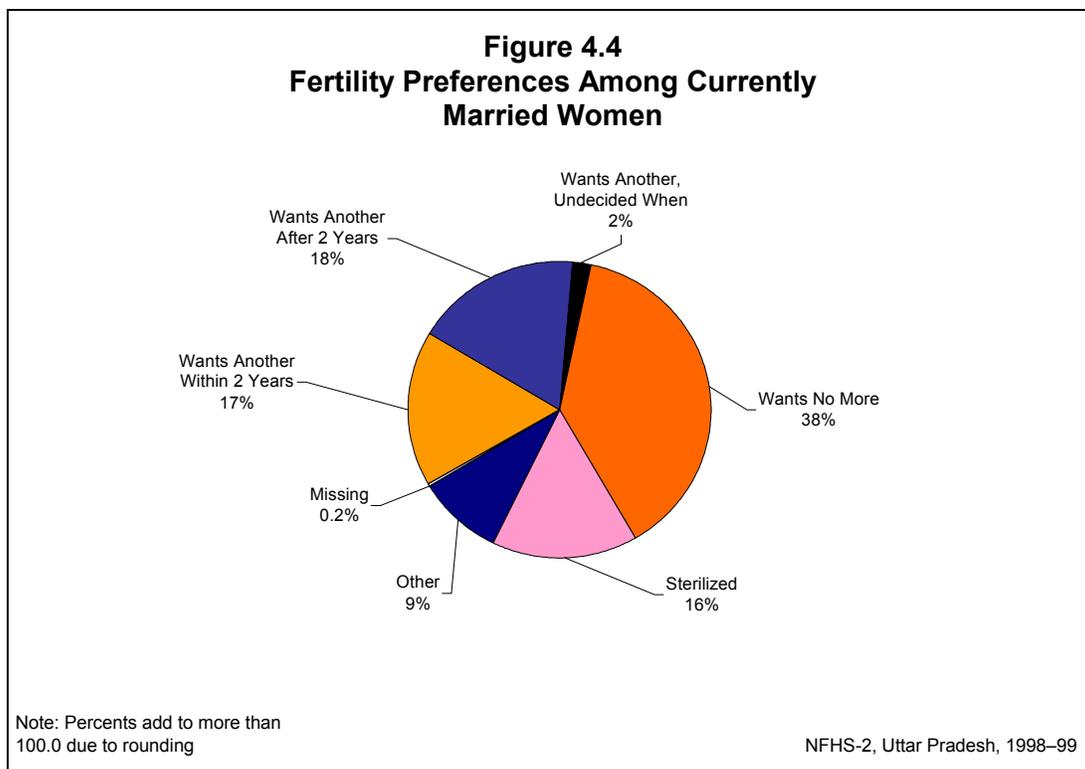
Table 4.13 and Figure 4.4 show future fertility preferences of currently married women. Thirty-eight percent of currently married women say that they do not want any more children, an additional 16 percent cannot have another child because either the wife or the husband has been sterilized, and 5 percent of women say that they cannot get pregnant (that is, they are ‘declared infecund’). More than one-third of women (37 percent) say that they would like to have another child (17 percent within two years, 18 percent after waiting at least two years, and 2 percent are undecided when they want the next child). Overall, 72 percent of women either want to space their next birth or do not want any more children, including women who are sterilized or whose husbands are sterilized. This proportion is 80 percent in urban areas and 69 percent in rural areas. Four percent of women say that the decision about having children is up to God.

Table 4.13 Fertility preferences						
Percent distribution of currently married women by desire for children and preferred sex of additional child, according to number of living children and residence, Uttar Pradesh, 1998–99						
Desire for children	Number of living children ¹					Total
	0	1	2	3	4+	
URBAN						
Desire for additional child						
Wants another soon ²	74.0	20.1	7.7	2.1	1.1	11.7
Wants another later ³	16.8	55.2	13.4	6.2	2.4	14.1
Wants another, undecided when	2.3	2.7	0.7	0.3	0.5	1.0
Undecided	0.0	0.6	1.3	1.3	1.1	1.0
Up to God	1.0	0.9	2.2	1.3	2.6	1.9
Wants no more	1.5	18.4	57.5	49.0	60.6	46.7
Sterilized	0.0	1.1	13.5	34.5	25.7	19.0
Declared infecund	4.0	0.5	3.3	4.5	5.7	4.1
Missing	0.3	0.5	0.4	0.7	0.3	0.4
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	153	246	399	341	637	1,776
Preferred sex of additional child⁴						
Boy	34.7	36.2	69.1	(49.5)	*	44.3
Girl	2.7	14.1	13.9	(16.3)	*	9.9
Doesn't matter	34.1	16.9	3.5	(16.2)	*	19.8
Up to God	28.5	32.9	13.5	(18.0)	*	26.0
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of women wanting more ⁴	145	151	80	28	22	427
RURAL						
Desire for additional child						
Wants another soon ²	71.3	30.4	19.5	8.8	2.8	18.3
Wants another later ³	16.4	51.6	30.7	15.4	4.1	18.7
Wants another, undecided when	4.9	4.8	3.3	1.0	0.6	2.2
Undecided	0.0	0.3	1.5	1.4	1.7	1.2
Up to God	1.7	3.4	4.4	4.9	4.4	4.0
Wants no more	1.1	6.2	27.9	42.5	57.0	36.0
Sterilized	0.0	1.0	9.3	22.7	22.4	14.7
Declared infecund	4.6	2.1	3.3	3.2	6.8	4.6
Missing	0.1	0.2	0.1	0.1	0.2	0.2
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	807	1,013	1,176	1,324	2,823	7,142
Preferred sex of additional child⁴						
Boy	48.7	51.5	65.1	77.3	74.3	58.3
Girl	0.8	10.8	10.7	6.4	3.5	6.7
Doesn't matter	22.5	12.7	8.5	5.2	7.1	13.5
Up to God	28.0	25.0	15.6	11.1	15.1	21.5
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of women wanting more ⁴	761	700	542	295	182	2,479

Table 4.13 Fertility preferences (contd.)						
Percent distribution of currently married women by desire for children and preferred sex of additional child, according to number of living children and residence, Uttar Pradesh, 1998–99						
Desire for children	Number of living children ¹					Total
	0	1	2	3	4+	
TOTAL						
Desire for additional child						
Wants another soon ²	71.7	28.4	16.5	7.4	2.5	17.0
Wants another later ³	16.5	52.3	26.3	13.5	3.8	17.8
Wants another, undecided when	4.5	4.4	2.6	0.9	0.6	2.0
Undecided	0.0	0.4	1.4	1.4	1.5	1.2
Up to God	1.6	2.9	3.8	4.1	4.0	3.6
Wants no more	1.2	8.5	35.4	43.9	57.7	38.1
Sterilized	0.0	1.0	10.4	25.1	23.0	15.6
Declared infecund	4.5	1.8	3.3	3.5	6.6	4.5
Missing	0.1	0.3	0.2	0.2	0.3	0.2
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	960	1,259	1,575	1,665	3,460	8,918
Preferred sex of additional child⁴						
Boy	46.5	48.8	65.6	74.9	73.5	56.3
Girl	1.1	11.4	11.1	7.3	3.7	7.1
Doesn't matter	24.3	13.5	7.9	6.2	7.4	14.4
Up to God	28.1	26.4	15.4	11.7	15.4	22.1
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of women wanting more ⁴	906	852	622	322	204	2,906
() Based on 25–49 unweighted cases *Percentage not shown; based on fewer than 25 unweighted cases ¹ Includes current pregnancy, if any ² Wants next birth within 2 years ³ Wants to delay next birth for 2 or more years ⁴ Excludes currently pregnant women						

The desire to have a child within two years drops rapidly with the number of living children, from 72 percent of women with no living children to 7 percent or less for women with three or more living children. For women with one living child, 52 percent (55 percent in urban areas and 52 percent in rural areas) want to wait at least two years before having the next child. And yet, as will be seen in Chapter 5, very few women in Uttar Pradesh use any temporary method of contraception. These findings suggest that encouraging the use of temporary methods would lower overall fertility and population growth, as well as provide health benefits to mothers and their children through increased birth spacing.

More than half of women (56 percent) who want another child say that they want the next child to be a boy, only 7 percent say that they want a girl, and the rest say that the sex of the child is either up to God (22 percent) or does not matter (14 percent). Both the proportion of women expressing a desire for a child of a particular sex and the proportion expressing a desire for a son generally increase with the number of living children. Among women with no living children, 47 percent want their first child to be a son, 1 percent want a daughter, and 52 percent say that the sex of the child is up to God or does not matter. Among women with three living children, 75



percent want their next child to be a son, 7 percent want a daughter, and only 18 percent say that the sex of the child is up to God or does not matter.

Table 4.14 provides information about differentials in the desire to limit family size by selected background characteristics. In this table, women who are sterilized (or whose husbands are sterilized) are included among those who say that they want no more children. It is striking that almost half of women with two living children (46 percent) want no more children. As expected, older women are much more likely than younger women to want no more children. Already by age 25–34, 64 percent of women want no more children. At age 35 and above, 80 percent of women want no more children. The proportion who want no more children is higher among urban women (66 percent) than among rural women (51 percent) and ranges widely among regions—from 50 percent in the Eastern Region to 69 percent in the Hill Region. The proportion wanting no more children does not vary systematically with women’s educational level, ranging from 50 percent among those who have completed middle school to 59 percent among those who have completed at least a high school education. A similar proportion of Hindu (54 percent) and Muslim (52 percent) women want no more children. The proportion is much higher among Sikhs (72 percent). The proportion wanting no more children ranges from 41 percent among scheduled-tribe women to 58 percent among women who do not belong to a scheduled caste, scheduled tribe, or other backward class. The proportion who want no more children increases with the standard of living, from 50 percent for women living in households with a low standard of living to 64 percent for women living in households with a high standard of living.

Table 4.14 Desire to have no more children by background characteristics

Percentage of currently married women who want no more children by number of living children and selected background characteristics, Uttar Pradesh, 1998–99

Background characteristic	Number of living children ¹					Total
	0	1	2	3	4+	
Age						
15–24	0.5	4.3	27.5	51.2	74.9	17.3
25–34	2.0	15.6	53.0	67.7	78.8	63.7
35–49	9.5	51.3	74.4	84.1	82.4	79.6
Residence						
Urban	1.5	19.5	71.0	83.6	86.3	65.8
Rural	1.1	7.2	37.2	65.2	79.4	50.7
Region						
Hill	1.0	24.8	76.9	88.4	90.4	69.1
Western	1.6	11.2	46.5	68.5	82.7	56.8
Central	0.6	7.9	46.2	67.2	83.7	51.3
Eastern	1.1	7.7	39.6	66.4	76.8	50.1
Bundelkhand	1.2	7.2	47.7	73.3	79.3	54.9
Education						
Illiterate	1.1	6.8	32.4	62.6	78.8	52.7
Literate, < middle school complete	0.0	8.8	51.9	69.8	87.9	57.5
Middle school complete	0.9	2.8	53.1	89.5	91.9	50.0
High school complete and above	2.6	22.6	76.3	91.8	90.5	58.6
Religion						
Hindu	1.0	9.8	46.7	71.4	81.5	53.9
Muslim	2.5	8.5	34.8	51.2	77.3	52.3
Sikh	*	*	*	*	*	72.2
Caste/tribe						
Scheduled caste	1.8	7.8	23.2	67.0	80.4	50.2
Scheduled tribe	(0.0)	(0.0)	(32.5)	(48.1)	72.2	41.3
Other backward class	0.8	6.5	40.6	63.0	79.7	51.1
Other	1.4	13.4	56.7	75.0	81.9	57.8
Standard of living index						
Low	0.6	5.6	25.3	60.3	78.2	49.7
Medium	1.0	6.9	43.3	66.4	80.3	52.2
High	2.2	21.8	69.9	86.4	88.6	64.2
Number of living sons²						
0	1.2	6.6	17.7	18.3	32.5	7.0
1	NA	14.6	45.9	59.5	68.8	45.3
2	NA	NA	67.6	82.5	83.9	80.1
3+	NA	NA	NA	79.8	85.0	84.4
Number of living daughters²						
0	1.2	14.6	67.6	79.8	86.5	29.9
1	NA	6.6	45.9	82.5	84.9	58.7
2	NA	NA	17.7	59.5	85.5	68.8
3+	NA	NA	NA	18.3	76.3	72.0
Total	1.2	9.6	45.7	69.0	80.7	53.7

Note: Women who have been sterilized or whose husbands have been sterilized are considered to want no more children.

NA: Not applicable

() Based on 25–49 unweighted cases

*Percentage not shown; based on fewer than 25 unweighted cases

¹Includes current pregnancy, if any

²Excludes pregnant women

The background characteristic with the strongest effect on women's desire to limit family size, however, is number of living sons. Only 7 percent of women with no living sons want no more children, compared with 84 percent of women with three or more living sons. Differences associated with the number of living daughters are also large, but not nearly as large as differences associated with the number of living sons, indicating a strong preference for sons. Thirty percent of women with no living daughters want no more children, compared with 72 percent of women with three or more living daughters. It is interesting to note that only 18 percent of women with two daughters and no sons do not want a third child, compared with 47 percent of women in India as a whole.

4.10 Ideal Number of Children

To assess women's ideal number of children, NFHS-2 asked each woman the number of children she would like to have if she could start over again. Women with no children were asked, 'If you could choose exactly the number of children to have in your whole life, how many would that be?' Women who already had children were asked, 'If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be?' Some women found it difficult to answer these hypothetical questions, and hence the question sometimes had to be repeated to ensure that the meaning was understood. Yet 89 percent of women in Uttar Pradesh were able to give a numerical response.

Table 4.15 shows that 58 percent of ever-married women in Uttar Pradesh consider two or three to be the ideal number of children. Only 30 percent have an ideal that differs from two or three children. Among all women who gave a numeric response, the average number of children considered ideal is 3.1, ranging from 2.7–2.8 for women who have two or fewer children to 3.6 for women who have four or more children.

Asking a question on ideal family size is sometimes criticized on the grounds that women tend to adjust their ideal family size upward as their number of living children increases, in a process of rationalizing previously unwanted children as wanted. It is argued that the question on ideal family size prompts many women to state the actual number of children they already have as their ideal. It is evident from Table 4.15, however, that this is not so for many women in Uttar Pradesh. Among women with four or more living children, for example, 38 percent state that fewer than four children would be ideal. Similarly, among women with three living children, 21 percent state that their ideal family size is smaller than three children. It is evident from these results that a substantial proportion of women in Uttar Pradesh already have more children than they now consider ideal. This proportion may be taken as another indicator of surplus or unwanted fertility.

Table 4.16 shows the mean ideal number of children for ever-married women by age according to selected background characteristics. The mean ideal number of children increases gradually from 2.9 for women age 15–24 to 3.5 for women age 45–49. The average ideal number of children is lower in urban areas (2.6 children) than in rural areas (3.2 children), and it ranges widely by region, from 2.6 children in the Hill Region to 3.3 in the Eastern Region. The mean ideal number of children is more than one child higher for illiterate women than for women who have completed at least a high school education. The pattern is similar according to the education level of the husband, although the effect is not quite as large. The mean ideal number of children ranges from 2.4 for Sikhs to 3.1 for Hindus and 3.4 for Muslims. The ideal family size is half a

Table 4.15 Ideal and actual number of children						
Percent distribution of ever-married women by ideal number of children, and mean ideal number of children, by number of living children, Uttar Pradesh, 1998–99						
Ideal number of children	Number of living children ¹					Total
	0	1	2	3	4+	
0	0.3	0.3	0.2	0.5	1.0	0.6
1	3.8	5.1	2.1	1.5	0.5	2.0
2	37.0	38.3	41.4	19.4	10.8	24.5
3	34.3	36.2	32.6	47.7	26.1	33.6
4	11.4	8.4	12.8	17.1	31.1	19.9
5	3.6	2.9	2.9	3.2	8.0	5.0
6+	1.5	1.6	1.5	1.3	5.3	2.9
Non-numeric response	8.2	7.1	6.5	9.4	17.3	11.5
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	1,017	1,313	1,635	1,714	3,613	9,292
Mean ideal number ²	2.8	2.7	2.8	3.1	3.6	3.1
Number of women giving numeric response	934	1,220	1,529	1,552	2,989	8,224

¹Includes current pregnancy, if any
²Means are calculated excluding women who gave non-numeric responses.

child higher for scheduled-tribe women than for women who do not belong to a schedule caste, scheduled tribe, or other backward class, and the ideal is one child higher for women living in households with a low standard of living than for women living in households with a high standard of living. The mean ideal number of children does not vary widely by women's work status.

4.11 Sex Preference for Children

A strong preference for sons has been found to be pervasive in Indian society, affecting both attitudes and behaviour with respect to children (Arnold et al., 1998; Arnold, 1996; Basu, 1989; Das Gupta, 1987; Kishor, 1995; Koenig and Foo, 1992; Murthi et al., 1995; Nag, 1991; Parasuraman et al., 1994). In NFHS-2, women who gave a numerical response to the question on the ideal number of children were asked how many of these children they would like to be boys, how many they would like to be girls, and for how many the sex would not matter. Table 4.17 shows women's mean ideal number of sons and daughters, the percentages who want more children of a particular sex, the percentage who want at least one son, and the percentage who want at least one daughter, according to selected background characteristics. The table shows a consistent preference for sons over daughters. Overall, the average ideal family size of 3.1 children consists of 1.8 sons, 1.1 daughters, and 0.2 children of either sex. Fifty-three percent of women want more sons than daughters, but only 1 percent want more daughters than sons.

The indicator that shows the percentage of women who want at least one son and at least one daughter exhibits the weakest son preference. Although most women in Uttar Pradesh want more sons than daughters, a large majority (89 percent) of women also want at least one

Table 4.16 Ideal number of children by background characteristics

Mean ideal number of children reported by ever-married women, according to current age and selected background characteristics, Uttar Pradesh, 1998–99

Background characteristic	Current age							Total
	15–19	20–24	25–29	30–34	35–39	40–44	45–49	
Residence								
Urban	2.5	2.4	2.5	2.7	2.8	2.8	3.0	2.6
Rural	3.0	3.0	3.2	3.3	3.5	3.5	3.6	3.2
Region								
Hill	2.4	2.3	2.5	2.7	2.7	2.7	3.3	2.6
Western	2.8	2.8	3.0	3.1	3.3	3.4	3.4	3.1
Central	3.0	2.9	3.0	3.2	3.3	3.1	3.4	3.1
Eastern	3.1	3.1	3.3	3.4	3.4	3.6	3.6	3.3
Bundelkhand	2.7	2.8	2.9	3.1	3.2	3.3	3.3	3.0
Education								
Illiterate	3.2	3.1	3.4	3.5	3.6	3.6	3.7	3.4
Literate, < middle school complete	2.5	2.7	2.8	3.0	3.0	3.0	3.1	2.9
Middle school complete	2.5	2.5	2.6	2.7	2.7	(2.9)	(2.8)	2.6
High school complete and above	2.3	2.2	2.1	2.2	2.3	2.5	(2.4)	2.2
Religion								
Hindu	2.9	2.9	3.0	3.2	3.2	3.3	3.4	3.1
Muslim	3.2	3.0	3.5	3.6	3.8	3.8	3.8	3.4
Sikh	*	*	*	*	*	*	*	2.4
Caste/tribe								
Scheduled caste	3.1	3.1	3.4	3.4	3.5	3.4	3.6	3.3
Scheduled tribe	(3.1)	(3.0)	(3.1)	(3.7)	*	*	*	3.4
Other backward class	3.0	3.0	3.2	3.3	3.5	3.5	3.6	3.2
Other	2.8	2.7	2.9	3.0	3.1	3.2	3.3	2.9
Work status								
Working in family farm/business	3.0	3.2	3.3	3.4	3.5	3.5	3.9	3.4
Employed by someone else	*	3.1	3.4	3.7	3.3	3.7	(3.5)	3.4
Self-employed	*	(2.7)	3.0	3.3	3.3	(2.7)	(3.4)	3.1
Not worked in past 12 months	2.9	2.8	3.0	3.1	3.3	3.3	3.4	3.1
Standard of living index								
Low	3.2	3.3	3.5	3.6	3.7	3.7	3.7	3.5
Medium	2.9	2.9	3.1	3.2	3.3	3.5	3.5	3.1
High	2.5	2.3	2.3	2.5	2.6	2.8	3.0	2.5
Husband's education								
Illiterate	3.2	3.3	3.6	3.6	3.7	3.8	3.7	3.6
Literate, < primary school complete	(3.4)	2.9	3.0	3.6	3.9	3.4	(3.9)	3.4
Primary school complete	3.0	3.1	3.4	3.4	3.6	3.4	3.5	3.3
Middle school complete	3.0	2.9	3.0	3.2	3.2	3.3	3.6	3.1
High school complete	2.7	2.7	2.9	3.1	3.1	3.1	3.1	2.9
Higher secondary complete and above	2.6	2.4	2.5	2.6	2.7	2.8	2.9	2.6
Total	2.9	2.9	3.1	3.2	3.3	3.4	3.5	3.1

Note: Means are calculated excluding women who gave non-numeric responses.

() Based on 25–49 unweighted cases

*Mean not shown; based on fewer than 25 unweighted cases

Table 4.17 Indicators of sex preference

Mean ideal number of sons, daughters, and children of either sex for ever-married women, percentage who want more sons than daughters, percentage who want more daughters than sons, percentage who want at least one son, and percentage who want at least one daughter by selected background characteristics, Uttar Pradesh, 1998–99

Background characteristic	Mean ideal number of:			Percentage who want more sons than daughters	Percentage who want more daughters than sons	Percentage who want at least one son	Percentage who want at least one daughter	Number of women
	Sons	Daughters	Either sex					
Residence								
Urban	1.5	1.0	0.2	40.0	1.1	88.9	84.3	1,650
Rural	1.9	1.2	0.1	56.6	1.4	95.4	90.6	6,573
Region								
Hill	1.5	1.0	0.1	41.6	1.0	92.0	84.4	383
Western	1.8	1.1	0.1	51.6	1.0	93.0	88.9	2,883
Central	1.8	1.1	0.1	54.5	1.3	96.2	91.2	1,548
Eastern	1.9	1.2	0.2	54.3	1.8	93.9	88.7	3,029
Bundelkhand	1.9	1.0	0.1	63.8	1.0	97.4	94.4	381
Education								
Illiterate	2.0	1.2	0.1	58.9	1.3	95.6	91.0	5,625
Literate, < middle school complete	1.6	1.1	0.2	50.4	1.6	93.6	89.8	1,004
Middle school complete	1.5	1.0	0.1	46.2	0.9	95.5	91.5	603
High school complete and above	1.1	0.8	0.3	28.8	1.9	85.0	77.9	991
Religion								
Hindu	1.8	1.1	0.1	54.0	1.3	94.6	89.8	7,002
Muslim	2.0	1.2	0.3	50.2	1.6	91.2	86.5	1,133
Sikh	1.3	1.0	0.1	32.3	4.9	95.4	90.4	53
Caste/tribe								
Scheduled caste	2.0	1.2	0.1	59.2	1.2	96.0	92.1	1,625
Scheduled tribe	2.1	1.2	0.1	56.0	3.5	98.4	93.1	174
Other backward class	1.9	1.2	0.2	57.2	0.9	95.0	91.3	2,295
Other	1.7	1.1	0.2	47.6	1.6	92.3	86.3	3,748
Work status								
Working in family farm/business	2.1	1.2	0.1	59.8	1.8	96.8	92.2	994
Employed by someone else	2.1	1.2	0.1	57.5	1.1	95.8	90.8	567
Self-employed	1.8	1.1	0.2	47.0	2.7	93.4	88.1	275
Not worked in past 12 months	1.8	1.1	0.2	52.1	1.3	93.5	88.8	6,379
Standard of living index								
Low	2.1	1.3	0.1	60.5	1.2	97.2	92.5	2,298
Medium	1.9	1.1	0.1	54.6	1.3	94.4	89.8	4,259
High	1.4	0.9	0.2	37.5	1.5	88.5	83.4	1,484
Husband's education								
Illiterate	2.2	1.3	0.1	60.9	1.0	95.7	91.0	2,276
Literate, < primary school complete	2.0	1.2	0.2	53.4	1.0	92.8	87.9	430
Primary school complete	1.9	1.2	0.2	53.1	1.8	94.9	91.0	1,033
Middle school complete	1.8	1.1	0.1	56.8	1.4	95.4	91.3	1,388
High school complete	1.7	1.1	0.1	52.2	1.6	93.9	88.7	1,292
Higher secondary school complete and above	1.5	1.0	0.2	41.7	1.2	90.9	85.1	1,763
Total	1.8	1.1	0.2	53.3	1.4	94.1	89.3	8,224

Note: Table excludes women who gave non-numeric responses to the questions on ideal number of children or ideal number of sons and daughters. Total includes 19 women belonging to other religions and 17, 382, 9, 183, and 42 women with missing information on religion, caste/tribe, work status, the standard of living index, and husband's education, respectively, who are not shown separately.

daughter. One reason that a substantial proportion of women want to have at least one daughter is to fulfil the Hindu religious obligation of *kanyadan* (giving a daughter away at the time of her marriage), which is one of the acts that enable the parents to acquire the highest level of merit (*punya*).

Son preference is relatively weak among women who live in urban areas, women who have at least completed high school, women whose husbands have at least completed high school, and women living in households with a high standard of living. Son preference is also relatively weak among Sikh women but does not vary widely between Hindus and Muslims. Women who belong to scheduled castes, scheduled tribes, or other backward classes have a stronger preference for sons than do other women. Women who are self-employed or who have not worked in the past 12 months show somewhat less son preference than other working women. Son preference varies widely by region: It is strongest in the Bundelkhand Region and weakest in the Hill Region. These variations notwithstanding, son preference is very strong among all population groups.

4.12 Fertility Planning

For each child born in the three years before the survey and for each current pregnancy, NFHS-2 asked women whether the pregnancy was wanted at that time (planned), wanted at a later time (mistimed), or not wanted at all. Because a woman may retrospectively describe an unplanned pregnancy as one that was wanted at that time, responses to these questions may lead to an underestimation of unplanned childbearing. Nevertheless, this information provides a potentially powerful indicator of the degree to which couples successfully control childbearing. It should be noted that the proportion of births that are unplanned is influenced not only by whether, and how effectively, couples use contraception, but also by the couple's ideal family size.

Table 4.18 shows the percent distribution of births during the three years preceding the survey and current pregnancies according to fertility planning status. One-quarter of all pregnancies that resulted in live births in the three years preceding the survey (including current pregnancies) were unplanned (that is, unwanted at the time the woman became pregnant). Eleven percent were wanted later and 14 percent were not wanted at all. The proportion of births that were unplanned is highest for women age 40–44 (58 percent) and lowest for women below age 20 (13 percent). Within the unplanned category, the proportion of births that were wanted later falls and the proportion that were not wanted at all rises as mother's age increases.

The proportion of births that were unplanned does not vary widely by socioeconomic characteristics. The proportion of births that were unplanned is almost the same in rural and urban areas and it also does not vary much by the woman's educational attainment or the household's standard of living. Unplanned births are less common in the Bundelkhand Region than in any other part of the state. The proportion of births that were unplanned is considerably larger for Muslim women (31 percent) than for Hindu women (23 percent) or Sikh women (22 percent). Not surprisingly, births of higher order are more likely than births of lower order to be unplanned. The proportion unplanned ranges from 11 percent for first-order births to 39 percent for births of order four or higher. The fact that 30 percent of births of order four or higher were not wanted at all indicates that the family welfare programme has failed to meet the needs of

Table 4.18 Fertility planning

Percent distribution of births during the three years preceding the survey and current pregnancies by fertility planning status, according to selected background characteristics, Uttar Pradesh, 1998–99

Background characteristic	Planning status of pregnancy				Total percent	Number of births and current pregnancies
	Wanted then	Wanted later	Not wanted at all	Missing		
Mother's age at birth¹						
< 20	87.3	11.1	1.4	0.2	100.0	1,129
20–24	80.5	13.1	6.2	0.2	100.0	1,821
25–29	71.8	10.5	17.3	0.4	100.0	1,246
30–34	59.7	6.4	33.8	0.1	100.0	668
35–39	50.5	5.7	43.4	0.4	100.0	261
40–44	40.9	4.4	53.9	0.8	100.0	60
Residence						
Urban	73.8	10.6	15.3	0.3	100.0	840
Rural	75.4	10.7	13.6	0.3	100.0	4,356
Region						
Hill	75.0	11.5	12.5	1.0	100.0	167
Western	74.9	9.6	15.1	0.4	100.0	2,005
Central	73.6	14.2	12.3	0.0	100.0	882
Eastern	75.6	10.4	13.9	0.1	100.0	1,921
Bundelkhand	80.8	8.4	10.1	0.7	100.0	221
Mother's education						
Illiterate	75.4	9.4	14.9	0.2	100.0	3,752
Literate, < middle school complete	71.1	15.0	13.4	0.6	100.0	585
Middle school complete	73.5	14.6	11.9	0.0	100.0	347
High school complete and above	79.1	12.3	8.5	0.2	100.0	512
Religion						
Hindu	76.8	10.3	12.7	0.2	100.0	4,126
Muslim	68.9	12.1	18.7	0.3	100.0	1,025
Sikh	(73.3)	(17.0)	(5.0)	(4.7)	100.0	23
Caste/tribe						
Scheduled caste	75.2	9.2	15.4	0.1	100.0	1,086
Scheduled tribe	68.8	16.4	13.7	1.1	100.0	116
Other backward class	76.9	10.5	12.7	0.0	100.0	1,443
Other	74.7	10.5	14.3	0.4	100.0	2,302
Standard of living index						
Low	74.5	9.8	15.5	0.2	100.0	1,690
Medium	75.2	10.6	13.9	0.3	100.0	2,689
High	75.9	12.9	10.9	0.3	100.0	705
Birth order²						
1	89.2	9.1	1.5	0.3	100.0	1,294
2	82.1	14.5	3.2	0.3	100.0	1,024
3	78.2	12.2	9.4	0.2	100.0	916
4+	60.9	9.1	29.7	0.3	100.0	1,961
Total	75.2	10.7	13.9	0.3	100.0	5,195

Note: Table includes only the two most recent births in the three years preceding the survey. Total includes 11 births to women age 45–49 at the time of birth, 12 births to women belonging to other religions, and 9, 248, and 111 births with missing information on religion, caste/tribe, and the standard of living index, respectively, which are not shown separately.

() Based on 25–49 unweighted cases

¹For current pregnancy, estimated maternal age at birth

²Includes current pregnancy, if any

Table 4.19 Wanted fertility rates		
Total wanted fertility rate and total fertility rate for the three years preceding the survey by selected background characteristics, Uttar Pradesh, 1998–99		
Background characteristic	Total wanted fertility rate	Total fertility rate
Residence		
Urban	2.01	2.88
Rural	3.06	4.31
Region		
Hill	1.88	2.69
Western	2.87	4.17
Central	2.65	3.89
Eastern	2.96	4.02
Bundelkhand	2.97	3.95
Education		
Illiterate	3.23	4.54
Literate, < middle school complete	2.31	3.36
Middle school complete	2.15	3.12
High school complete and above	1.92	2.49
Religion		
Hindu	2.74	3.87
Muslim	3.36	4.76
Sikh	(1.84)	(2.34)
Caste/tribe		
Scheduled caste	3.05	4.44
Scheduled tribe	3.50	4.83
Other backward class	2.96	4.12
Other	2.72	3.77
Standard of living index		
Low	3.34	4.91
Medium	2.89	3.97
High	2.01	2.80
Total	2.83	3.99
Note: Rates are based on births in the period 1–36 months preceding the survey to women age 15–49. The total fertility rates are the same as those presented in Table 4.3.		
() Based on 125–249 woman-years of exposure		

women who already have at least three children to control their fertility. The substantial proportion of women at all parities who would have liked to have their births later suggests that attention also needs to be given to the promotion of spacing methods of contraception.

The impact of unwanted fertility can be measured by comparing the total wanted fertility rate with the total fertility rate (TFR). The total wanted fertility rate represents the level of fertility that theoretically would result if all unwanted births were prevented. A comparison of the TFR with the total wanted fertility rate indicates the potential demographic impact of the elimination of all unwanted births. The total wanted fertility rates presented in Table 4.19 are calculated in the same way as the TFR except that unwanted births are excluded from the numerator. In this case, a birth is considered unwanted if the number of living children at the time of conception was greater than or equal to the ideal number of children reported by the

respondent at the time of the survey. Women who did not give a numeric response to the question on ideal number of children are assumed to have wanted all the births they had.

Overall, the total wanted fertility rate of 2.83 in Uttar Pradesh is lower by 1.16 children (i.e., by 29 percent) than the total fertility rate of 3.99. This means that if unwanted births could be eliminated, the TFR would decrease about 60 percent of the way between its current level and the replacement level of fertility (approximately 2.1 children per woman). In fact, if all unwanted births were eliminated, women living in urban areas and in the Hill Region, women who completed at least high school, Sikh women, and women living in households with a high standard of living would all have below-replacement fertility. For other groups, the total wanted fertility rate is at least one child less than the actual TFR for the following groups: women in rural areas, women in the Western, Central, and Eastern Regions, women who are illiterate or have completed less than a middle school education, Hindu and Muslim women, women in all caste/tribe groups, and women in households with a low or medium standard of living.