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Demographic Characteristics of Family Planning Acceptors and Their Implications : State-Wise Analysis—India, 1979-81

Introduction

INDIA has the distinction of being the first country in the world to adopt Family Planning Programme as an integral part of the development programme. Over a period of time the policy of the government changed from clinic to extension and then to cafeteria approach. Since the inception of the programme the proportion of acceptors has been increasing, indicating the response of the public to the programme. This increase might as well be due due to increasing infrastructure and so of programme coverage. During the last 30 years the expenditure on Family Welfare Programmme has increased from Rs. 14.5 lakhs in 1951-56 to Rs. 11851.1 lakhs in 1979-80, Primary Health Centres have increased from 725 in 1955-56 to 5739 in 1981-82 and Subcentres have increased from 17,521 in 1966-67 to 59,511 in 1981-82.

Obviously, the real programme response cannot be measured merely in terms of percentage of acceptors or percentage achievement of target. These indices may increase simply with duration of programme and may not reflect its qualitative aspect. As pointed out by Chandrasekaran (1979) a study of the characteristics of acceptors in terms of age, parity, residence etc. and their trends is necessary to understand the real changes in programme response. If there is any decline in the age and family size of the acceptors the implication is that couples are beginning the contraceptions at younger ages, thereby enhancing the programme's demographic effect; more so in the early stages of development when natural fertility is found to increase (Srinivasan and Jejeebhoy,

1981). Further, the initiation of family planning method at younger ages and low parities, indicates a pattern of social change conducive to overall fertility decline.

However, the decline in some of these characteristics may take place due to changes in age distribution and marriage patterns of the population over a period of time. Even across the countries, the differences in age distribution and marriage patterns may explain much of its variation in average. This universal phenomena has been explained by the "Saturation Hypothesis" (Ross, 1979). According to this hypothesis declines in age and family size of acceptors are thought to be intrinsically related to the overall proportions practising birth control. Older ages inevitably receive from the groups immediately below them new entries who are already using contraception. Also older women initially accept at higher rates and continue use for longer periods. This produces a filling-up of the older age-groups by users, depleting them of non-users available to accept.

However, this hypothesis may not explain fully the observed trends over time or differentials across the states. Some of the differentials observed in these characteristics by states would certainly indicate the difference in real response of the people towards Family Planning Programme.

Objective

Accordingly, objective of this paper is to examine the demographic characteristics of acceptors and their implications across the states in India during 1979-81 and also to analyse some of the important factors affecting these characteristics.

The paper is divided into following sections : Sources and limitations of data; review of literature; methodology; and analysis.

Sources and Limitations of Data

The data on selected characteristics of family planning acceptors are taken from various issues of Family Welfare Programme Year Book, published by Government of India. Since the requisite characteristics by states are available only from 1977-78, it does not allow us to carry out the trend analysis which would have shown the changing attitude of people towards the family welfare programme. The data for selected characteristics is not available for conventional contraceptive acceptors which restricts the analysis to sterilisation and IUD acceptors only. Since sterilisation is the most dominant method, it may not matter much as far as age pattern of total acceptors is concerned. Here, we have combined the characteristics of acceptors in 1979-80 and 1980-81 for sterilisation as well as IUD. The tubectomy and vasectomy acceptors are combined to get sterilisation acceptors. Infant mortality rate by states for 1978 is

taken from Sample Registration Bulletin. Further the mean age at marriage, number of children ever born, female literacy 15 and above is obtained by Key Statistics, 1981.

It may be mentioned that these data suffer from misreporting. But the various studies have shown that there is no substantial misreporting of the age and number of living children (Badri and Kulkarni 1976, Grover and Kulkarni, 1982). However, in general, reporting of living children seems to be comparatively better than age of acceptors. Therefore, the results presented in the present paper should be interpreted in the light of all these above mentioned limitations.

Review of Literature

A review of some of the literature available for different countries, especially in the third world, would give us some idea about the mechanism underlying changes in the demographic characteristics of acceptors and also their relations with the demographic transition taking place in those countries.

In Singapore, the mean age of women undergoing sterilisation declined marginally from 31.7 years in 1972 to 31.3 years in 1975, whereas the mean number of living children declined from 4.4 to 3.7. The mean age of total new acceptors declined from 35 years in 1966 to 24 years in 1975, while the parity declined from a mean of 3.7 children to 1.3 between 1966 and 1975. Acceptors practising permanent method constituted only 8 per cent of all new acceptors which may be one of the reasons for higher age of sterilisation acceptors. In Malaysia the mean age of acceptors has gone down from 29.0 in 1968 to 26.8 in 1975, whereas the mean number of living children to acceptors decreased from 4.6 to 3.2. The age and parity of new acceptors have exhibited a steady downward trend in Indonesia. For Java and Bali the median age of new acceptors in 1971-73 was 29.5 years whereas in 1976-77 it had dropped to 26.9 years. Similarly the number of living children among these acceptors has declined from 3.8 to 2.5 between 1971-73 and 1976-77. In Tunisia the average age of IUD acceptors declined from 33.4 in 1967 to 29.23 in 1974, the number of living children decreased from 5.2 in 1964 to 3.98 in 1974 and the percentage of couples with no more than two living children increased from 10.2 per cent in 1964 to 28.4 per cent in 1974. Korea and Colombia also recorded declines in mean age and mean number of living children (IUSSP, 1979). The study by Ross (1979) has clearly shown that acceptors' family size has declined with consistency in each country and it is remarkably regular over a period of time. This trend is observed for each method like IUD, pill and sterilisation.

Among these countries, Singapore stands out as having achieved NRR of unity in 1975; it has recorded the lowest age and the minimum number of living children of the acceptors. It indirectly indicates that for faster demographic transition family planning acceptors should be from younger age

groups with less number of living children.

For India there are very few comparative studies relating to age distribution and number of living children to the acceptors and their implications by states. However, there are some studies conducted for particular state or for some smaller area through surveys. The study by Reddy and Raju (1980) reveals that Family Planning Programme in Karnataka State has started attracting younger men and women with less number of living children for sterilisation over a period of time. But the decline observed is not yet very encouraging. It is observed from the study of Mandya district in Karnataka (Katti and Hasalkar, 1980) that the median age of the tubectomy acceptors both in rural and urban areas was around 28 years and the median age of IUD acceptors was 25 years in the urban areas. The average number of living children for tubectomy acceptors in urban and rural areas was 3.79 and 3.89 respectively. The IUD acceptors in urban area had 2.35 children.

The study of Guntur district in Andhra Pradesh regarding sterilisation acceptors observed that over a period of 12 years the median age of acceptors showed a decline from 29.75 to 26.99 years for vasectomy and 27.18 to 25.99 years for tubectomy. But the average number of living children for both vasectomy and tubectomy did not record significant change during the reference period barring the Emergency interlude (Rajeshwari and Jorapur, 1983).

A study pertaining to Kerala (Government of Kerala, 1981) reveals that the percentage of vasectomy and tubectomy acceptors has increased below 35 years and 30 years of age respectively. The median age for tubectomised person has declined from 33.8 in 1957-68 to 28.0 years in 1974-75. For vasectomised persons the decline for this period was from 38.1 to 35.2 years. Their average number of living children at the time of acceptance has declined from 4.2 to 3.5 for vasectomy acceptors and 4.4 to 3.6 for tubectomy acceptors.

The recent survey by ORG (Khan and Prasad, 1983) reveals that in the high fertility age span of 25-29 the percentage of acceptors increased by 19 per cent between 1970 and 1980, The percentage of couples who were using family planning with only one child increased from 7 to 17 per cent. The increase in family planning acceptors was around 8 per cent among those who had two or more children. The study also shows that education of wife had a positive influence on the beginning of contraception. More than 50 per cent of illiterate couples start using any method after 4th pregnancy whereas their percentage for those with higher secondary level education is just 9 per cent. The majority of highly educated couples (around 32 per cent) start using family planning after first pregnancy.

The study for Baroda city (Gandotra, 1972) observed that the mean number of live births has declined in all age groups except 15-19. However, decline is steeper after 25 years of age. It also revealed that the mean age of the women at each parity was higher than before. Higher order births (3+) showed a decline from 51 per cent to 40 per cent. Its conclusion was that

couples are trying to limit the size of their families only after getting three children.

Methodology

The demographic characteristics chosen for analysis are age and number of living children of the acceptors. In order to analyse the age pattern of acceptors, modal age group, percentage of acceptors below 30 years, and average age has been taken as the indicators. For analysing the number of living children we have taken percentage of acceptors having two children and average number of living children as indicators for sterilization and percentage of acceptors having one child, two children and average number of living children as the indicator for IUD.

Average number of children ever lost per acceptor is calculated under following assumptions :

(i) Average age of number of living children of the sterilisation acceptors is 10 years and 5 years for children of IUD acceptors.
(ii) Infant mortality rate (IMR) for children of general population is same for the children of acceptors.

Average age of living children is directly related with the onset of reproduction. It may be comparatively higher in case of early fertility and low for late fertility. But the states where reproduction starts early, might have high infant and childhood mortality which would act in the opposite direction. In otherwords, average age of living children may not be substantially different in the different states or country.

There may not be substantial difference in mortality between children of general population and sterilisation acceptors because the socio-economic characteristic of acceptors is almost same as those of the general population (Khan and Prasad, 1983). On the other band, IUD acceptors essentially belonged to educated group and hence their children would experience low mortality. But we do not have IMR for children of IUD acceptors. However, we feel that above assumption may not lead to very different conclusion.

On the basis of IMR observed in 1978 probability of survival from birth to age 10 (L_{10}) and 5 (L_5) is calculated from Coale and Demeny (1966) West Model life tables. The average number of living children is divided by L_{10} in case of sterilisation and L_5 in case of IUD to get average number of children ever born to the acceptors. The children ever born so calculated minus number of living children would give us average number of children ever lost per acceptors.

For calculating birth saving, age specific marital fertility rate is taken for 1978 from SRS and then it is multiplied by proportion of acceptors in 1980-81 separately for sterilisation and IUD. In the case of IUD this figure is

further multiplied by 0.7 to account for discontinuation, expulsion, removal etc. Mortality is not taken into consideration. Since our aim is to find out the difference in birth saving due to IUD (20-29 age group) and sterilisation (30 and above), it may not affect our conclusion substantially.

Analysis

It is observed from Table 1 that the modal age-group of sterilisation acceptors is 25-29 for Andhra Pradesh, Gujarat, Karnataka, Kerala, Tamil Nadu and West Bengal. For other states except Maharashtra peak comes in 30-34 age group. The percentage of acceptors in Maharashtra is about the same in 25-29 and 30-34 age groups. For all India the modal age group is 25-29. The highest percentage of acceptors below 30 years of age is observed for Kerala. In addition to this few other states also show nearly 56 to 60 per cent of acceptors below 30 years. The family planning programme in those states which have modal age group in 25-29, and where more than 50 per cent sterilisation acceptors are coming from age below 30 years, may be considered as qualitatively better. In most of the states average age at acceptance is around 30 or above. It means that the present age pattern of acceptors in these states may not have impact on family size for general population as nationally desired (two child family). The wide variation in percentage of acceptors in younger age-group and average age of acceptors in different states clearly reflect the attitude of couples towards family size. Notably, inspite of higher age at marriage in Kerala the average age of acceptors is substantially lower than that of states like Uttar Pradesh, Bihar etc. where age at marriage is low.

For IUD acceptors the modal age group for Kerala, Gujarat and West Bengal is 20-24 age group whereas for rest of the states except Andhra Pradesh it is in 20-29 age group. In the case of Andhra Pradesh percentage of acceptors are about the same in 20-24 and 25-29 age group. It means that it has broader peak. It may be said that in the case of IUD modal age group has shifted downward by 5 years in almost all states except Karnataka and Tamil Nadu. The percentage of acceptors below 30 years of age in states where modal age is 20-24, ranges from 75 to 80 and their average age is around 26. It may be noted that the states like Punjab and Haryana which are known for IUD programmes have substantially lower percentage of acceptors below 30 years and, on the average they are respectively 29 and 30 years old. It indirectly gives an idea that programme impact in these states is less. On the basis of comparison between modal age group and average age (given in Table 1) we distinguish two basic age pattern of acceptors :

(i) Average age is approximately closer to the lower limit of the modal age group. This indicates that in these states percentage of acceptors

TABLE 1—PERCENTAGE OF ACCEPTORS BELOW 30 YEARS OF AGE AND AVERAGE AGE OF ACCEPTORS : 1979-81

Country/State	Sterilisation			IUD		
	Modal age group	< 30 years	Average age	Modal age group	< 30 years	Average age
Andhra Pradesh	25-29	59.75	29.63	20-29	68.15	27.40
Assam	30-34	47.20	32.18	25-29	45.25	29.80
Bihar	30-34	39.95	31.75	25-29	64.20	28.25
Gujarat	25-29	44.70	31.05	20-24	80.15	26.70
Haryana	30-34	36.35	32.20	25-29	55.20	29.60
Karnataka	25-29	59.85	29.56	25-29	74.95	26.90
Kerala	25-29	63.05	28.81	20-24	75.90	26.85
Madhya Pradesh	30-34	45.10	31.17	25-29	73.65	27.20
Maharashtra	25-34	46.40	31.15	25-29	71.90	27.50
Orissa	30-34	37.85	31.72	25-29	72.75	26.95
Punjab	30-34	31.30	32.87	25-29	60.90	28.90
Rajasthan	30-34	37.30	31.88	25-29	59.50	29.10
Tamil Nadu	25-29	56.35	30.30	25-29	72.25	27.20
Uttar Pradesh	30-34	31.75	32.65	25-29	56.35	29.30
West Bengal	25-29	56.10	30.47	20-24	76.60	26.00
INDIA	25-29	49.75	30 71	25-29	65.50	28.10

SOURCE : Computed from Family Welfere Programme in India, Year Book 1980-81 and 1981-82.

in the age group below the modal age group is comparatively more than the percentage of acceptors in the age group next to modal age group.

(ii) Average age is either close to the upper age of modal age group or higher than that. This indicates that the percentage of acceptors are comparatively more in the age groups above modal age groups.

For all India, the modal age group for IUD is 25-29. The percentage of acceptors below 30 years of age is 65 and their average age is 28, almost two years more than the minimum observed.

It may be concluded from the above discussion that the states which are

characterised by high fertility, (Bihar, Haryana, Madhya Pradesh, Rajasthan, Uttar Pradesh where crude birth rate is above 35 per 1000 population in 1979-81) acceptors are comparatively older, probably having higher number of living children.

Table 2 shows that in almost all the southern states, higher proportion of sterilisation acceptors are having two living children. Among these states the percentage of acceptors having two children is substantially higher for Kerala

TABLE 2—PERCENTAGE OF ACCEPTORS WITH NUMBER OF LIVING CHILDREN AND AVERAGE NUMBER OF LIVING CHILDREN (1979-81)

Country/State	*Sterilisation*		*IUD*		
	Having two children	*Average number of living children*	*Having one child*	*Having two children*	*Average number of living children*
Andhra Pradesh	24.62	3.45	23.26	33.11	2.55
Assam	3.34	4.70	1.74	9.52	3.65
Bihar	16.03	3.60	15.74	34.J4	2.65
Gujarat	17.04	3.68	25.89	37.46	2.35
Haryana	8.60	3.90	13.03	25.39	2.95
Karnataka	17.33	3.50	26.48	32.90	2.40
Kerala	33.35	2.90	25.20	37.93	2.35
Madhya Pradesh	13.35	3.87	20.06	34.49	2.60
Maharashtra	13.55	3.71	32.26	40.66	2.05
Orissa	17.47	3.70	21.50	31.69	2.60
Punjab	8.88	3.80	18.20	31.87	2.65
Rajasthan	7.81	4.05	12.40	27.27	3.15
Tamil Nadu	24.87	3.20	23.23	35.82	2.35
Uttar Pradesh	9.70	4.07	13.23	25.19	3.10
West Bengal	21.92	3.40	24.04	35.40	2.25
INDIA	18.29	3.60	18.95	30.70	2.65

SOURCE : Same as **in Table 1.**

(33.35). Compared to a state like Maharashtra where percentage of couple protection is highest, the percentage of acceptors having two children is in fact more than double for Kerala. Further, the average number of living children for Kerala is 2.9 against 3.7 for Maharashtra. This indicates that high percentage of couple protected docs not necessarily lead to small family size.

Contrary to the above conclusion, IUD acceptors in Maharashtra have on an average, less number of living children compared to Kerala. The percentage of acceptors having one child is substantially higher in Maharashtra (32.26 per cent) as compared to Kerala. This is true in case of two living children also. Thus, the spacing methods are more prevalent in Maharashtra at lower parities than in Kerala. Table 1 shows that the proportion of IUD acceptors below 30 years of age is higher in case of Kerala but number of living children is less for Maharashtra. This also indicates that the spacing method is used for a longer time, on the average, in Maharashtra. However, the average number of living children for sterilisation is higher in Maharashtra than Kerala. It means that probably in Maharashtra less proportion of IUD acceptors are directly going for permanent method whereas in Kerala higher proportion of IUD acceptors are opting for sterilisation without going for next child.

In all those states which are characterised by higher fertility the average number of living children for IUD acceptors is either 3 or above. It clearly shows that even the spacing method is accepted only after three children which seems to be very close to the desired family size. As mentioned earlier these IUD acceptors may not convert themselves directly into sterilisation acceptors and hence their ultimate family size will be more than three.

Factors Affecting the Demographic Characteristics

The difference observed in the selected characteristics across the states may be due to difference in socio-economic conditions. In general, increase in socio-economic status tends to decrease desired family size which indirectly means acceptance of family planning programme at younger ages and at lower parity. For present analysis we have taken three variables namely, literacy rate for females aged 15 and above, mean age at marriage and infant mortality rate (IMR) to study their relation with selected characteristics of acceptors. It may be mentioned that literacy and IMR may be two most important factors determining the age or parity after which couples would accept family planning method.

Table 3 shows that infant mortality is highly correlated with the selected demographic characteristics. As expected correlation between number of living children and IMR is higher, compared to correlation between age and IMR. Similar conclusions apply to correlation between literacy and these characteristics. This indirectly indicates that whenever there is improvement in these factors, number of living children would decrease faster than the average age

TABLE 3—CORRELATION MATRIX OF SELECTED VARIABLES

Variables	X_1	X_2	X_3	X_4	X_5	X_6	X_7
X_1	1.0000						
X_2	0.8594	1.0000					
X_3	0.7221	0.6702	1.0000				
X_4	0.6297	0.6711	0.8142	1.0000			
Xt	—0.6426	-0.7858	—0.4658	—0.5997	1.0000		
X_6	-0.3784	-0.6117	-0.3350	—0.4857	0.8615	1.0000	
X_7	0.7330	0.7858	0.4629	0.6782	—0.7894	—0.5703	1.0000

X_1 : Average age for sterilisation.
X_2 : Average number of living children for sterilisation.
X_3 : Average age for IUD.
X_4 : Average number of living children for IUD.
X_5 : Literacy rate for females 15 and above age, 1981.
X_6 : Mean age at marriage, 1981.
X_7 : Infant mortality rate, 1978.

at acceptance. This process seems to be necessary for the age to decline. The trend analysis of these characteristics for Karnataka confirms the above statement (Ram and Veeramatha, 1983). However, the above process is clearer in the case of IUD acceptors than the acceptors of sterilisation.

As observed above the higher mortality especially infant mortality seems to be main hindrance for success of family planning programme. High infant mortality generated the fear in the mind of couple about the survival of children to adulthood especially of son. In this connection it may be worthwhile to examine these characteristics in relation to number of children lost by these acceptors in different states. In this regard Table 4 shows that the sterilisation acceptors in Kerala had lost the minimum number of children before accepting the method, while in states like Uttar Pradesh, Madhya Pradesh, Rajasthan, Assam and Orissa acceptors of sterilisation have lost more than one child. In the case of IUD also the highest number of children are lost by acceptors in these states. This clearly shows the positive relation between number of children lost and number of living children to the acceptors. It means that the couples may accept any family planning method with less number of children in future only when the infant mortality comes down and thereby they are sure of the survival of their children.

TABLE 4 - AVERAGE NUMBER OF CHILDREN EVER LOST PER ACCEPTOR BEFORE ACCEPTING DIFFERENT METHOD : 1979-81

Country/State	Number of Children Ever Lost per Acceptor	
	Sterilisation	IUD
Andhra Pradesh	0.79	0.52
Assam	1 09	0.76
Gujarat	0.90	0.51
Haryana	0.82	0.56
Karnataka	0.46	0.28
Kerala	0.18	0.13
Madhya Pradesh	1.33	0.70
Maharashtra	0.48	0.26
Orissa	1.01	0.63
Punjab	0.87	0.70
Rajasthan	1.19	0.83
Tamil Nadu	0.63	0.41
Uttar Pradesh	1.68	1.14
INDIA	0 87	0.58

Implications

There is no doubt that the impact of acceptance at younger ages on fertility would be much higher compared to that at older ages. The pattern of acceptors by age or by number of living children would be reflected in the pattern of age specific fertility rate or children ever born by age for general population. For this purpose we present children ever born in Table 5 for major states from 1981 census. The children ever born in 20-24 would reflect the impact of age at marriage and age pattern of spacing method, whereas children ever born in 30-34 and 40-44 would reflect the effect of age pattern of family planning acceptors in respect of spacing as well as the sterilisation. The children ever born in different states seems to be positively related to demographic characteristics of family planning acceptors. It may be mention-

TABLE 5—AVERAGE NUMBER OF CHILDREN EVER BORN PER WOMAN IN SELECTED AGE GROUPS, 1981

Country/State	Average Number of Children Ever Born		
	20-24	JO-34	40-44
Andhra Pradesh	1.27	3.15	4.08
Bihar	1.18	3.33	4.40
Gujarat	0.95	3.46	4.81
Haryana	1.20	3.94	5.74
Karnataka	1.16	3.47	4.71
Kerala	0.74	2.91	4.49
Madhya Pradesh	1.36	3.84	5.24
Maharashtra	1.11	3.31	4.59
Orissa	1.23	3.51	4.59
Punjab	0.81	3.45	4.79
Rajasthan	1.26	3.95	5.55
Tamil Nadu	0.95	3.09	4.03
Uttar Pradesh	1.21	3.64	5.03
West Bengal	1.19	3.47	4.85
INDIA	1.13	3.46	4.71

SOURCE : Census of India 1981, Key Population Statistics based on 5 per cent sample data. Series 1 India.

ed that the states which have acceptors at younger age have less number of children ever born compared to the states where acceptors are from bigher ages. However it may be difficult to separate the effect of pattern of marriage and family planning acceptors. Probably due to this however the selected demographic characteristics have low correlation with children ever born per woman aged 20-24. On the other hand the children ever born in 40-44 age group which would be less affected by age at marriage, shows high correlation with selected demographic characteristics.

It may be interesting to examine whether the acceptors of IUD at younger ages would avert comparatively more births than the acceptors of sterilisation at higher ages. For this we present in Table 6 the number of births averted in

TABLE 6—ADDITIONAL NUMBER OF BIRTHS AVERTED IN A YEAR FOR 1000 ACCEPTORS UNDER DIFFERENT CONDITIONS : 1980-81

Country/State	*A*	*B*	*C*
Andhra Pradesh	38	21	78
Assam	-24	112	169
Bihar	20	69	99
Gujarat	80	61	95
Haryana	-25	83	90
Karnataka	60	24	82
Kerala	97	—	—
Maharashtra	59	58	88
Orissa	34	72	95
Punjab	26	106	104
Rajasthan	-1	89	81
Tamil Nadu	62	33	87
Uttar Pradesh	-26	99	78
INDIA	34	50	83

Note : A : Births averted by IUD acceptors in 20-29 age group minus birth averted by sterilisation above 30 years.

B : Births averted by sterilisation with Kerala age pattern minus births averted by sterilisation with present age pattern of acceptors 20-29 age group.

C : Births averted by IUD acceptors in 20-29 with Kerala age pattern minus births averted with observed age pattern.

the age group 20-29 by IUD and in ages above 30 years for sterilisation for 1000 total acceptors. This table also gives the births averted on the assumption that the age patterns of acceptors of different states were the same as that of Kerala. In case of sterilisation there would be less number of births averted by acceptors above age 30 because percentage of acceptors in Kerala beyond this age is less. But change in age pattern would ensure smaller family size as well as more births averted without changing the volume of acceptors. In states like Assam, Haryana. Rajasthan and Uttar Pradesh, the number of births expected to be saved among IUD acceptors aged 20-29 is less than sterilisation acceptors above 30. The present age distribution of IUD acceptors is more

favourable in states like Kerala, Gujarat, Tamil Nadu, Karnataka and Maharashtra. In these states IUD programme appears to be more advantageous than sterilisation, and may, therefore, be given more importance. These states belong to the first category of the age pattern of acceptors as mentioned in Analysis section.

By changing the age distribution of sterilisation acceptors in all states to the Kerala pattern, the maximum gain in terms of births averted would be for Assam, Punjab, Uttar Pradesh, Rajasthan and Haryana. This is because the acceptors presently in these states are much older than acceptors in Kerala. This indicates that without increasing the total number of acceptors, we may get more demographic impact by encouraging the younger couples to accept family planning. This would also reduce the cost per birth averted.

Concluding Remarks

It is clear from the present analysis that there is a strong relation between demographic characteristics of acceptors and the process of demographic transition. The states which have acceptors with low average age and less number of living children seem to be in an advance stage of demographic transition. In poor performing states IUD is being predominantly used for limiting the family size, not for spacing.

The study further reveals that the literacy level is negatively related with average age at acceptance and average number of living children. On the other hand, the level of infant mortality has strong positive relation with these characteristics. The states which are having higher proportion of couples protected at present, IUD programme may be more advantageous.

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