Changing family planning scenario in India: A trend analysis of major states

By

Saurav Dey[1]
M. Guruswamy[2]

International Institute for Population Sciences
Govandi Station Road, Deonar
Mumbai, India
www.iipsindia.org

Paper to be presented at the forthcoming 2007 Annual Meeting Program

Population Association of America

New York, NY

March 29 – 31, 2007

[1] Research Scholar, email: saurav_dey@rediffmail.com
[2] Professor, Department of Development Studies, email: gmadappa@vsnl.net

Changing family planning scenario in India: A trend analysis of major states

Introduction:

Realizing the dangers of a burgeoning population, India launched a family planning programme in 1951 to promote contraceptive methods and responsible parenthood. The Family Welfare Programme in India has experienced significant growth and adaptation over the past half century since its inception in 1951. The direction, emphasis and strategies of the Family Welfare Programme have changed over time. The range of contraceptive products delivered through the programme has widened. Multiple stakeholders, including the private sector and non-governmental sector, have been engaged in providing contraceptive services. Of late, the programme has been integrated with the broader Reproductive and Child Health Programme. The couple protection rate has quadrupled from 10 percent in 1971 to 44 per cent in 1999 (MOHFW: 2000), which is below the target of 60 percent.

The programme placed almost a total emphasis on sterilization as the major method of family planning from the very beginning, vasectomy until 1977 and tubectomy thereafter, and the quality of services offered in this regard was far from satisfactory and has not improved over time. With emphasis on sterilization, only high parity, older women accepted the method and younger, high fertile and lower parity women were not covered by the programme. While other developing countries such as China, South Korea, Malaysia, Indonesia started their family planning programme with spacing methods and the introduced sterilization after spacing ingrained in the psyche of the population (Srinivasan: 2006), India went the opposite way with limitation as the ultimate goal of family planning.

To improve the functioning of workers at the grassroots, method-specific targets were introduced in 1966-67. In this approach, service providers were assigned annual targets of couples to be motivated for accepting sterilization, IUD and condoms. As motivating couples to accept temporary methods proved difficult, the Indian family planning programme was slowly reduced to a sterilization campaign. Due to mounting criticism, the Government of India finally decided to withdraw the target oriented approach in 1996 and replaced it with client centered and need- based "community needs assessment approach". In this approach, worker targets would be decided each year from bottom-up, after assessing the contraceptive needs of the community. However, in many places this practice is yet to take-off in the letter and spirit of the new initiative. The family planning program in India is unevenly implemented in different states. While states such as Tamil Nadu and Andhra Pradesh have set an

example by vigorous implementation of the programme, several northern states like Bihar, Uttar Pradesh etc. have shown weak commitment. A facility survey conducted in 1999 found that none of the PHCs in Bihar have even 60 percent of the required inputs (Guin et. al 2004).

The National Population Policy, adopted in February 2000, further legitimized the paradigm shift to client-based services. It also affirms the government's commitment to the provision of quality of services, information and counseling, and expanding contraceptive method choices in order to enable people to make voluntary and informed choices. However, it is a great concern that some policies adopted by the states espouse strategies and mechanisms that are diametrically opposed to the principles of equity and equality that the National Population Policy entails.

Review of Literature:

Though fertility decline has begun in major states in India, the pace of this decline in the southern states like Kerala, Tamil Nadu, and Karnataka etc. is much faster than states like Uttar Pradesh, Bihar etc. Bihar has consistently shown the lowest use of contraception among Indian states (ORG 1971; Srinivasan and Kanitkar 1986; IIPS 1995, 2001). An early comparative study of Andhra Pradesh and Bihar indicated that women's perceived advantages of family planning were more self-or family centered in Andhra Pradesh while in Bihar women tended to report societal benefits of family planning (Khan et al 1980).

Official statistics report that 87 million eligible couples, out of an estimated total of 171 million eligible couples, were effectively protected against conception by various contraceptive methods in the year 2000 (MOHFW; 2003). Data from the National Family Health Survey (NFHS) – II indicate that nearly one-half of currently married women were using some method of contraception in 1998-99.

A comparison with data from NFHS- I reveals an increase in contraceptive prevalence during the six-and- a half years between the two surveys. Although prevalence differs among the states, there has been an over all increase in contraceptive use in almost all states during the 1990s. Among the four large northern states of Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh, all except Bihar recorded increases ranging between 21 per cent and 42 per cent during this period (Santhya; 2002.).

A preliminary comparison of data from the Reproductive and Child Health Survey-I (1998-99) and the first phase of the Reproductive and Child Health Survey- II (2002), reflecting changes after the introduction of the Community Needs Assessment Approach and the reproductive and Child Health

Programme, also indicates an increase in contraceptive use in all the major states, particularly Uttar Pradesh and Madhya Pradesh (MOHFW; 2003).

A "cafeteria approach", whereby clients are provided with a choice of contraceptive methods, has been adopted by the Family Welfare Programme since the 1960s. However, it is well documented that, until recently, the emphasis of the programme remained skewed towards promoting non-reversible methods, particularly female sterilization. Hence, not surprisingly, female sterilization continues to be used by the majority of contraceptive users in India. Nationally, data from NFHS– II show that sterilization accounted for 84 per cent of the contraceptive prevalence rate due to modern methods and 75 per cent of overall current contraceptive prevalence (IIPS and ORC Macro 2000). Although reported by only a negligible minority, sterilization was the most commonly adopted method even among married adolescents in India. A review of data on contraceptive behaviour of adolescents in Asian countries shows that India is the only country where such a pattern prevails (Pachauri and Santhya; 2002).

Nationally, the use of natural family planning methods was reportedly low, accounting for just 10 per cent of current contraceptive use. Among the states, the use of natural methods was relatively common in West Bengal, Assam and Punjab. In West Bengal, more than one in four current users were using a natural family planning method (Santhya; 2002).

Need for the study:

There is a need to study the changing pattern of the contraceptive acceptance, as the state models do not take the possible inter regional variations within the state or similarities between neighbouring regions across states. In line with government policy of promoting a basket of contraceptive choices within the broad context of the community needs assessment approach with a view to increase the share of modern spacing methods among the contraceptive users, this is an attempt to asses the family planning programme to address this issue. So, there arises a need to study whether the contraceptive method mix has changed in favour of the modern spacing methods.

Objectives:

The main objectives of this paper are: ---

1. To study the trends in acceptance of family planning methods in the major states of India.
2. To study the inter-state differentials in family planning acceptance between major states.
3. To understand individual level differentials in determining contraceptive use among the women in the major states (zones).

Source of data:

To fulfill the above objectives, data for analysis is obtained from Family Welfare Year Books (MOHFW), National Family Health Survey (NFHS) – I; (1992-93) and National Family Health Survey (NFHS) – II; (1998-99) for 'Currently Married Women'. The present study focuses mainly on this group because questions regarding current use of contraception were asked only to currently married women by residence and socio cultural and economic background.

Methodology:

Some statistical techniques have been applied as per the requirement of the study. In order to get the state wise distributions of women currently using contraceptive methods, Simple percentages and Multivariate binary logistic regression was applied to identify the significant predictors and likelihood of contraceptive use among women according to select background attributes.

Major Findings and Discussion

Trends in Family Planning Acceptance

Data from many sources suggest that contraceptive use is low in states like Uttar Pradesh and Bihar. In Figure 1, we have shown a comparison of current use of contraception among married women aged 15-49 for different major states of India, as reported in NFHS- 1 conducted in 1992-93. It can be seen that in Bihar only 23 and in Uttar Pradesh only 21 percent of women are using contraception. In comparison, in some states such as Kerala, and Punjab, the reported use of contraception is as high as 56-58 percent.

On the other hand, Figure 2 shows the comparison of current contraceptive use among married women in the age group 15-49 for the major states of India, as reported in NFHS- II conducted in 1998-99. It can be found that that there has been a marginal increase in contraceptive acceptance in Bihar whereas in Uttar Pradesh, the rise in the level of contraceptive usage was much better, and it was

near about 27 per cent from the earlier recorded value of mere 21 per cent in the previous survey. Almost all the major states, except Assam have shown a progress in family planning acceptance. The situation in Assam was somewhat different and it recorded a fall of 4.21 per cent in the reported use of contraception.

Male Sterilization

According to the data provided by the Service Statistics, there has been a considerable fall in the reported number of male sterilization cases during the last decade i.e. from 1991-92 to 2000-01. On average, it declined from 1.32 per cent in the year 1991 to 0.37 percent in 2001. From Table 1 it can be seen that almost all the states except Andhra Pradesh have shown a considerable decline in percent male sterilized. In the case of Andhra Pradesh, the trend in male sterilization was declining until 1998-99. However, it experienced a sudden rise from 1.89 percent in 1997-98 to 3.47 percent in 1998-99; and then witnessed a declining trend. But the percentage was still high in comparison with other southern states like Karnataka, Tamil Nadu and Kerala. Uttar Pradesh and Rajasthan have shown sharp decline in reported cases of male sterilization among the northern states in the last decade. The percentage of acceptors in these states was in the range of 0.03-0.04 percent during the period 2000-01. The trend in male sterilization for the period has been shown in figure 3.

Female Sterilization

In case of female sterilization, the percentage was considerably high and remains to be high. Although, on average there has been a steady decline in percent reported cases of female sterilization until 1996-97. However, this percentage has considerably shown a rising trend there after i.e. from 1997 to 2001. Female sterilization still remains the most popular method of contraception in almost all the states except Assam and Uttar Pradesh. From Table 2 it can be seen that states like Andhra Pradesh, Bihar and Kerala show a relatively higher percentage in terms of female sterilization during the period 2000-01. In the last decade, these states have witnessed a fall as well a rise in the percent female sterilized. Therefore, it can be seen that in Andhra Pradesh, sterilization (male and female) still remains very high when compared with other southern states. In Bihar also, its dominance is very high when compared to other major states of India. The percentage of acceptors in these states was in the range 38-39 per cent during the period 2000-01. The trend in male sterilization for the period has been shown in figure 4.

IUD insertion

In order to know in detail, the use of spacing methods, we have further examined the three spacing methods such as IUD, condom and pills. The percentage acceptor of IUD from 1991 to 2001 is given Table 3. It can be seen that IUD has registered a sharp decline (on an average) in the last decade. The maximum decline was observed in the state of Andhra Pradesh, Gujarat, Haryana, Madhya Pradesh, Rajasthan and West Bengal. In West Bengal, the percentage has declined from a value 36.29 per cent in 1991-92 to 7.42 percent in 2000-01. This fall is drastic when compared with other major states. Therefore, it can be said that the reported percentage of IUD insertion in all these states has tremendously deteriorated over the period. The trend in IUD insertion for the period has been shown in figure 5.

Condom use

There has been a drastic increase in condom use for all the states during the last decade. On average, the rise is almost 30 per cent in terms of percentage reported in condom use during 1991-92 to 2001-01. From Table 5; it can be seen that states such as Bihar, Tamil Nadu and Karnataka are those, which have shown the lowest percentage in condom usage in 2000-01. Among these three states, Bihar shows the lowest percentage, i.e. 10.85 per cent in the year 2001-01. The major rise in condom usage was during 1992-93 to 1993-94 and there after almost all the states have shown a steady decline. During the last decade, highest uses of condom were shown by states like Punjab, Haryana, Gujarat, Madhya Pradesh, Uttar Pradesh and Orissa. The trend in condom use for the period has been shown in figure 7.

Oral Pills consumption

In the case of oral pills, states such as Andhra Pradesh, Gujarat and Kerala have registered a decline in consumption. All other major states have registered an increase in the consumption of oral pills. The state of West Bengal had the highest use of oral pills (32.71 per cent) in 2000-01 followed by Assam (24.53 percent). From Table 4; it can be seen that, on an average there has been a steady rise in percentage reported in terms of oral pill consumption during the last decade. It can be seen that in Kerala and Bihar, the percentage of oral pill consumption in the year 1991-92 was much lower in comparison with the other states. But, Bihar has shown comparative rise in oral pill consumption over the years. In the case of Kerala, the percentage has declined from 9.86 per cent in 1991-92 to 7.92 percent in 2000-01. The trend in Oral pill consumption for the period has been shown in figure 6.

Interstate differentials in contraceptive use during the 1990s

During the 1990s there were significant changes in the national family welfare programme. During the middle part of the decade, the erstwhile target-oriented approach of family planning was done away with and a new target-free, need-based approach was instituted since 1997-98. Amidst such a policy environment of changing approaches, contraceptive use by eligible couples across the country, as captured on the government service statistics, is sure to witness resultant changes. Again, there is considerable evidence suggesting significant differentials in contraceptive use and acceptance among the states.

In this exercise, we were interested to examine inter-state differentials in contraceptive use, according to different available methods during the 1990s. We had divided the different methods as reported in the service statistics, viz., male and female sterilization, IUDs, oral pills and condoms, into limiting and spacing methods, to study closely the differentials according to these two exclusive method categories. We examined the service statistics at three periods of time during the 1990s; 1991-92, 1997-98 and 2000-01. The year 1997-98 was chosen with the explicit objective to examine whether there has been any change in the methods used following the introduction of the target-free approach. We have used the service statistics reported in the annual Family Welfare Yearbook to study the differentials.

It is clear from the following figures (Fig. 3-5) that significant inter-state differentials exist in the contraceptive use among the eligible couples across the country. Again, there also exists variations among the spacing and limiting methods. Several interesting facts emerge from the trends across the states. Firstly, over the years there has been a steady decline in the use of limiting methods, and a corresponding increase in the use of spacing methods. This can be attributed probably to the shift toward adopting spacing methods by younger couples across the country.

Secondly, in the year 1997-98, there was a sharp drop in the use of limiting methods for most of the major states and it has slightly increased in the year 2000-01. One of the reasons behind such an observation may be the relaxing of targets in limiting methods for the states. Sterilization efforts by the family welfare department might have declined after the relaxing of such targets. However even in the year 2000-01, it can be seen that sterilizations continues to be accepted by around 25 percent of all method users in all southern states and in Bihar, Maharashtra and West Bengal. Among the major states limiting method use is least in Uttar Pradesh, and has been so during the last decade.

Determinants of Contraceptive Use: Logistic Regression Analysis

In order to understand the determinants of contraceptive use among eligible women in India, we have applied logistic regression, using the National family Health Survey data. The NFHS data provides an opportunity to analyze the likelihood of using contraceptives among the eligible women in the age group 15-49. We have carried out similar analysis on the NHFS 1 and NFHS 2 data to examine any possible shifts in such probabilities of contraceptive use. The dependant variable in our analysis was, 'whether currently using contraceptives (any methods)', having response categories no= 0 and yes=1. We have included variables such as age, literacy of the respondent as well as that of her husband, total number of children ever born and child loss, occupation of husband, place of residence, mass media exposure and religion as predictors.

Results indicate similar patterns of contraceptive use in both NFHS 1 and 2. It is evident from the results that women in the higher age groups are more likely to use all forms of contraceptives than their younger counterparts. This result is along expected lines as older women might have completed their desired family size and resorted to terminal methods. However, the increased likelihood of contraceptive use among women in the age groups 25-29 and 30-14 can be also due to higher use of spacing methods. Again illiterate women and those residing in rural areas are found to be less likely to adopt any forms of contraceptives.

Women who have higher number of living children are also found to be more likely to use contraceptives, which can be attributed to their completion of intended family size. On the other hand, interestingly, women who have higher number of children born, or in other words are of higher parity is less likely to use contraceptives than the women of lower parity. One of the explanations for such an observation could probably be the fact that parity as such is not adjusted for child mortality. So, the probability of higher order children not surviving might prevent women from using contraceptives. Conversely, it can be seen that women who have more number of child loss were found to be less likely to use contraceptive.

Husband's occupation has also emerged as significant predictor of women's contraceptive use. Women, whose husbands are engaged in non-agricultural or other occupations, have lesser likelihood of using contraceptives than those having husbands engaged in agricultural occupations. For the purpose of logistic analysis, we have clubbed states into geographical regions. Although such classifications are not exactly homogenous, as differences also exist among states in the same geographical region, it is evident that Southern and Western states have greater likelihood of

contraceptive use than other parts, although the results in NFHS 1 and 2 does not quite match in this respect. All over the country, Hindu women are more likely to use contraceptives than women from Muslim or other religions. On the other hand, it can be seen that women who have complete mass media exposure have higher likelihood of using contraceptives than those women who were having partial or no exposure of mass media.

Conclusion:

It is evident from our brief analysis of acceptance of family planning methods that use of contraceptives has increased over the last decade. However, significant variation exists among the states in patterns of contraceptive use. The family planning service statistics also throws up a number of important findings. Although doubts remain regarding the accuracy and quality of the reported figures in service statistics, it is evident that spacing methods are gradually emerging as the predominant forms of contraceptive use. From the policy perspective, efforts are called for in improving service delivery in order to bring eligible couples who still remain outside the group of family planning practices, through improved IEC approaches, wider choices and greater community participation in the nation's family welfare effort.

References:

- Bhat, P.N. Mari and A.J. Francis Zavier (1999), "Findings of the National Family Health Survey: Regional Analysis," Economic and Political Weekly, 34 (42 & 43).
- Family Welfare Planning Year Book: Ministry of Health and Family Welfare; Several Issues.
- Francis Zavier, A.J., Bhat, P.N. Mari and Gulati, S.C 2005 (Feb). "Levels and Determinants of Contraceptive Use," Packard Foundation Funded Project on Demographic Trends in Bihar and Jharkhand: Population Research Centre, Institute of Economic Growth, New Delhi.
- Ghosh, R. 2001. "Intention to use contraception: A comparative study of northern and southern states of India," Demography India 30(2): 261-280.
- Gulati, S.C. (1996), "Contraceptive method's use and choice in Kerala and Uttar Pradesh: multinomial logit analysis of NFHS data," Demography India, 25 (2): 2005-220.
- Gupta, J.A. 1993. "People like you agree to get it: An Indian family planning clinic," Reproductive Health Matters 1: 39-43.
- Khan, M.E., B.C. Patel and R. Chandrasekhar. 1990. "Contraceptive use dynamics of couples availing of services from government family planning clinics: A case study of Orissa," Journal of Family Welfare 36(3): 18-38.

- International Institute for Population Sciences (IIPS).1995. National Family Health Survey 1 (MCH and Family Planning), India 1992-93. Mumbai: IIPS.
- International Institute for Population Sciences (IIPS) and ORC Macro.2000. National Family Health Survey 2- India 1998-99. Mumbai: IIPS.
- International Institute for Population Sciences (IIPS) and EAST-WEST Center Program on Population, Honolulu. April, 1996. "Fertility and Contraceptive Use in Tamil Nadu, Andhra Pradesh and Uttar Pradesh", NFHS Bulletin no. 3, Mumbai.
- Pachauri, S. 1995. "Defining a reproductive health package for India: A proposed framework," Population Council Regional Working Paper no. 4, New Delhi.
- Rama Rau, D. 1954(Nov). "Family Planning in India," The Journal of Family Welfare 1(1): 32.
- Retherford, R. D. and Mishra, V. 2001 (Nov). "An Evaluation of Recent Estimates of Fertility Trends in India," National Family Health Survey Subject Reports Number 19. Mumbai: IIPS.
- Santhya, K.G. and S.J. Jejeeboy. 2003. "Sexual and reproductive health needs of married adolescents girls," Economic and Political Weekly 37(41): 4370-4380.
- Santhya, K.G. 2003. "Changing family planning scenario in India: An overview of recent evidence," Population Council Regional Working Paper no. 17, New Delhi.
- Sengupta, A.K. 1965(June). "Family Planning in India- Importance of Human Factors," The Journal of Family Welfare 11(4): 39.
- Srinivasan, K. 2006. "Population Policies and Family Planning Programmes in India: A review and Recommendations," IIPS, Mumbai.
- Srivastava, A. 1990. "Family Planning in India: An Economic Assessment," New Delhi: B.R. Publishers.
- Thapar, S. 1963 (July). "Family Planning in India," The Journal of Family Welfare 17: 4.
- Vijaylakshmi Pandit, H.E. 1956(July). "Family Planning in India," The Journal of Family Welfare 2(5): 177.

Tables and Figures

Table 1: Percentage Males Sterilized in Major States: 1991-2001.

Major States	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01
Andhra Pradesh	2.45	3.14	1.93	1.19	1.27	1.58	1.89	3.47	2.75	3.24
Assam	4.24	0.96	0.20	0.30	0.32	0.25	0.03	0.03	0.03	0.08
Bihar	1.42	1.95	0.91	0.56	0.41	0.24	0.21	0.20	0.17	0.10
Gujarat	1.36	1.40	0.54	0.39	0.41	0.25	0.19	0.16	0.15	0.11
Haryana	0.61	0.66	0.24	0.21	0.19	0.13	0.12	0.20	0.12	0.20
Karnataka	0.11	0.08	0.04	0.04	0.04	0.02	0.02	0.03	0.04	0.05
Kerala	0.54	0.42	0.15	0.09	0.10	0.07	0.08	0.13	0.16	0.40
Madhya Pradesh	1.31	1.44	0.41	0.30	0.23	0.19	0.12	0.12	0.13	0.26
Maharashtra	1.11	1.15	0.43	0.38	0.31	0.24	0.27	0.25	0.24	0.58
Orissa	1.87	1.54	0.57	0.44	0.39	0.31	0.28	0.40	0.23	0.16
Punjab	1.05	0.69	0.27	0.18	0.13	0.09	0.08	0.11	0.11	0.14
Rajasthan	0.91	1.03	0.30	0.10	0.20	0.13	0.09	0.07	0.06	0.07
Tamil Nadu	0.33	0.17	0.08	0.05	0.03	0.03	0.02	0.05	0.03	0.03
Uttar Pradesh	1.97	1.44	0.63	0.82	0.78	0.21	0.12	0.10	0.07	0.04
West Bengal	0.53	0.47	0.27	0.16	0.15	0.12	0.14	0.11	0.13	0.10

Source: Family Planning Year Book; Ministry of Health and Family welfare, Government of India: 1991-2001.

Table 2: Percentage Females Sterilized in Major States: 1991-2001.

Major States	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01
Andhra Pradesh	38.17	38.17	25.83	22.52	26.63	29.22	33.73	35.28	38.73	38.41
Assam	45.22	45.22	27.12	17.57	17.67	15.82	10.86	12.87	21.18	12.02
Bihar	29.62	29.62	42.26	30.09	33.09	21.33	35.15	35.23	32.02	38.63
Gujarat	28.80	28.80	14.31	13.02	13.52	13.04	14.68	14.34	14.85	14.42
Haryana	29.88	29.88	11.97	11.33	12.03	12.55	12.81	13.19	14.01	14.36
Karnataka	44.57	44.57	33.65	30.82	30.42	30.08	31.70	32.62	34.35	34.50
Kerala	48.37	48.37	25.79	23.71	24.32	27.15	32.10	31.91	37.42	38.45
Madhya Pradesh	29.88	29.88	11.52	10.48	10.16	11.33	11.34	11.51	13.39	12.37
Maharashtra	36.74	36.74	19.60	20.17	19.67	22.25	28.93	28.09	30.08	35.09
Orissa	33.55	33.55	16.83	17.26	16.08	16.21	16.69	15.96	15.56	12.31
Punjab	16.98	16.98	9.12	8.93	7.92	9.22	9.63	10.99	7.82	11.20
Rajasthan	32.39	32.39	20.52	73.38	16.96	14.93	13.65	12.42	12.14	13.11
Tamil Nadu	38.63	38.63	29.76	25.98	25.70	29.33	29.62	28.02	28.88	30.77
Uttar Pradesh	14.79	14.79	7.58	7.82	8.19	6.09	5.87	6.61	7.21	7.22
West Bengal	39.03	39.03	30.58	28.55	28.24	28.70	27.63	25.10	27.26	26.44

Source: Same as above.

Table 3: Percentage of IUD Insertions in Major States: 1991-2001.

Major States	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01
Andhra Pradesh	37.80	27.77	15.27	13.93	15.16	17.87	17.10	15.44	15.55	14.44
Assam	37.28	38.52	25.16	27.60	26.36	32.50	34.02	32.17	32.10	34.29
Bihar	58.38	34.06	27.90	30.71	33.96	40.87	40.25	46.76	33.86	32.92
Gujarat	50.40	46.39	22.19	21.09	22.48	22.39	24.65	23.93	23.88	23.52
Haryana	50.85	45.37	18.20	18.60	19.79	20.03	22.40	23.60	23.86	24.61
Karnataka	40.74	35.49	25.91	24.88	27.61	29.49	29.86	29.92	30.79	29.33
Kerala	35.22	32.05	16.78	15.75	16.40	16.40	18.28	18.67	20.27	20.49
Madhya Pradesh	36.88	32.09	23.11	23.00	21.57	18.52	19.29	18.89	19.23	17.21
Maharashtra	33.77	34.45	16.81	16.80	16.61	19.40	21.39	21.42	22.33	22.86
Orissa	44.89	43.19	22.08	21.14	23.16	23.67	32.82	28.60	27.40	27.47
Punjab	63.26	62.20	32.93	34.71	41.14	34.12	33.34	36.88	58.83	37.20
Rajasthan	48.04	39.49	17.39	5.72	17.15	15.37	13.74	12.80	12.86	12.12
Tamil Nadu	48.10	45.37	30.38	30.99	33.37	35.66	36.42	34.81	34.01	32.56
Uttar Pradesh	67.17	61.57	36.04	36.72	38.42	39.36	39.44	40.65	40.49	40.49
West Bengal	36.29	24.06	14.31	11.13	11.11	9.98	8.77	8.50	8.24	7.42

Source: Same as above.

Table 4: Percentage of Oral Pill users in Major States: 1991-2001.

Major States	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01
Andhra Pradesh	16.80	17.19	11.29	10.78	12.98	14.57	14.67	12.97	13.39	13.11
Assam	11.19	15.49	7.01	17.39	18.14	18.74	28.03	22.18	21.43	24.53
Bihar	9.49	6.68	6.70	9.73	8.46	11.40	10.19	15.11	13.18	17.50
Gujarat	12.89	12.07	7.66	7.97	8.60	8.76	9.94	10.02	10.21	10.23
Haryana	8.02	10.72	4.85	5.65	6.38	7.26	8.14	8.95	9.55	10.31
Karnataka	11.85	12.17	10.28	11.45	12.03	12.31	12.51	13.16	12.34	12.71
Kerala	9.86	10.74	6.43	7.15	7.19	7.75	7.48	6.91	7.32	7.92
Madhya Pradesh	24.59	22.47	11.51	12.77	13.83	15.31	17.48	19.05	20.67	18.96
Maharashtra	22.86	18.73	13.60	14.75	15.36	16.28	19.16	19.09	19.57	17.50
Orissa	14.71	12.83	9.33	10.25	11.25	13.27	14.76	14.40	16.81	18.70
Punjab	10.54	10.71	6.59	7.68	7.86	8.51	8.80	9.22	7.24	12.02
Rajasthan	13.45	10.49	9.26	3.38	12.77	15.33	19.23	20.42	23.00	23.64
Tamil Nadu	10.69	11.07	12.62	17.26	17.96	15.63	17.13	15.74	15.85	16.44
Uttar Pradesh	10.91	12.16	8.32	8.15	9.79	12.49	14.85	15.34	16.13	16.87
West Bengal	21.17	25.73	16.06	21.26	22.23	25.67	28.69	30.48	31.28	32.71

Source: Same as above.

Table 5: Percentage of Condom users in Major States: 1991-2001.

Major States	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01
Andhra Pradesh	4.78	6.15	45.68	51.58	43.96	36.75	32.60	32.84	29.58	30.79
Assam	2.08	4.21	40.50	37.14	37.52	32.70	27.06	32.75	25.26	29.08
Bihar	1.10	1.56	22.25	28.91	24.08	26.15	14.20	2.70	20.77	10.85
Gujarat	6.55	7.30	55.30	57.53	55.00	55.56	50.54	51.56	50.92	51.72
Haryana	10.63	10.49	64.75	64.22	61.62	60.03	56.52	54.06	52.45	50.52
Karnataka	2.72	2.85	30.12	32.82	29.91	28.11	25.90	24.28	22.48	23.40
Kerala	6.91	6.58	50.86	53.30	51.99	48.63	42.05	42.38	34.83	32.74
Madhya Pradesh	7.34	9.07	53.45	53.46	54.21	54.66	51.77	50.43	46.58	51.21
Maharashtra	5.52	5.86	49.56	47.89	48.05	41.82	30.26	31.14	27.78	23.97
Orissa	4.98	5.86	51.21	50.91	49.13	46.55	35.45	40.64	39.99	41.56
Punjab	8.17	6.42	51.08	48.50	42.95	48.06	48.15	42.80	25.99	39.44
Rajasthan	5.20	6.23	52.53	17.42	52.92	54.24	53.30	54.29	51.94	51.06
Tamil Nadu	2.24	1.98	27.15	25.73	22.94	19.35	16.81	21.39	21.23	20.19
Uttar Pradesh	5.16	6.71	47.45	46.49	42.82	41.86	39.73	37.30	36.09	35.39
West Bengal	2.98	3.94	38.78	38.89	38.28	35.53	34.76	35.81	33.09	33.32

Source: Same as above.

Table 6: Interstate differentials in Contraceptive use during the1990s

Major States	1991-92		1997-98		2000-01	
	Limiting methods	Spacing methods	Limiting methods	Spacing methods	Limiting methods	Spacing methods
Andhra Pradesh	40.62	59.38	35.62	64.38	41.66	58.34
Assam	49.46	50.54	10.89	89.11	12.10	87.90
Bihar	31.03	68.97	35.37	64.63	38.73	61.27
Gujarat	30.16	69.84	14.87	85.13	14.53	85.47
Haryana	30.50	69.50	12.93	87.07	14.56	85.44
Karnataka	44.69	55.31	31.73	68.27	34.56	65.44
Kerala	48.91	51.09	32.18	67.82	38.85	61.15
Madhya Pradesh	31.19	68.81	11.46	88.54	12.63	87.37
Maharashtra	37.85	62.15	29.19	70.81	35.67	64.33
Orissa	35.42	64.58	16.97	83.03	12.46	87.54
Punjab	18.03	81.97	9.72	90.28	11.34	88.66
Rajasthan	33.31	66.69	13.74	86.26	13.19	86.81
Tamil Nadu	38.97	61.03	29.64	70.36	30.80	69.20
Uttar Pradesh	16.76	83.24	5.98	94.02	7.26	92.74
West Bengal	39.56	60.44	27.77	72.23	26.54	73.46

Source: Same as above.

Table 7: Determinants of Contraceptive Use, India: 1992-93 & 1998-99

Background Characteristics	Exponential (β)	
	NFHS- I	NFHS- II
Age Group (15-49)		
15-19®		
20-24	3.332*	3.050*
25-29	8.590*	7.011*
30-34	15.313*	10.696*
35-39	12.286*	11.474*
40-44	14.815*	9.030*
45-49	9.043*	5.656*
Wife's Education		
Illiterate®		
Literate	1.641*	1.387*
Husband's Education		
Illiterate®		
Literate	1.231*	1.289*
Major States (Zones)		
North®		
South	1.018*	0536*
East	0.706*	0789*
West	1.431*	1.151*
Central	0.471*	1.144*
Husband's Occupation		
Agriculture®		
Non- Agriculture	0.915*	0.822*
Other's	0.924*	0.798*
Total Children Ever Born©	1.108*	1.315*
Child loss©	0.760*	0.665*
Religion		
Hindu®		
Muslim	0.470*	0.482*
Other's	1.029*	1.007*
Type of Residence		
Urban®		
Rural	0.922*	0.843*
Mass Media Exposure		
No Exposure®		
Partial Exposure	1.616	1.950
Complete Exposure	2.022*	2.011*
Constant	0.057	0.051

Dependent Variable: Current Use of Contraception: No=0, Yes=1
*- p= < .001

Figure 1: Percentage of Current Contraceptive Use in major States of India, NFHS- I, 1992-93

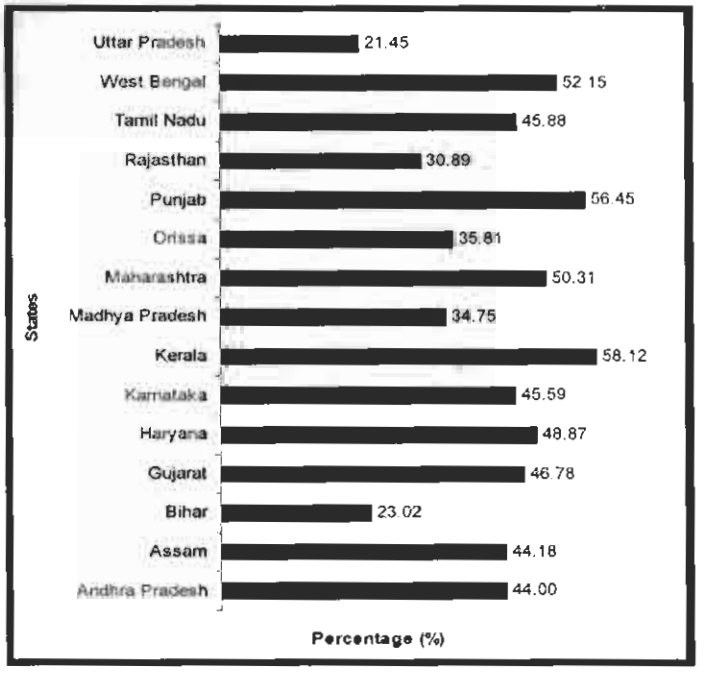


Figure 2: Percentage of Current Contraceptive Use in major States of India, NFHS-II, 1998-99

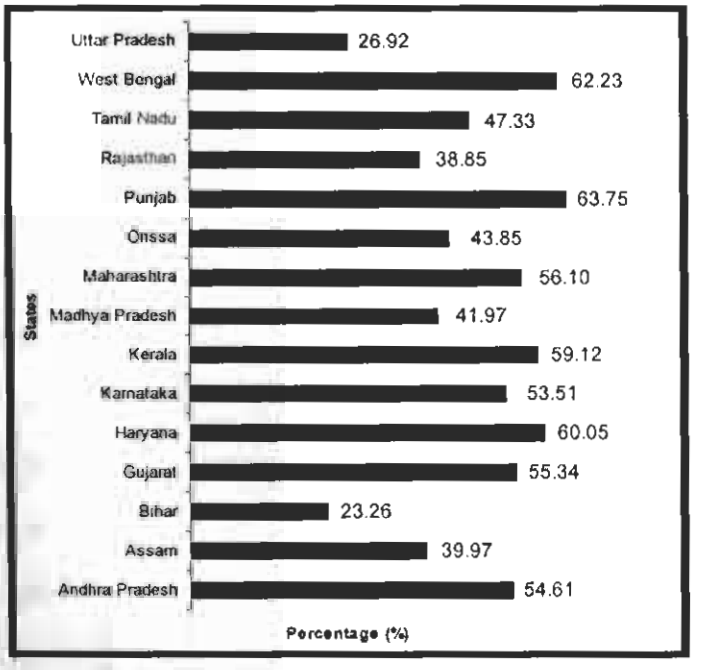


Figure 3: Trends in Male Sterilization in Major States: 1991-2001

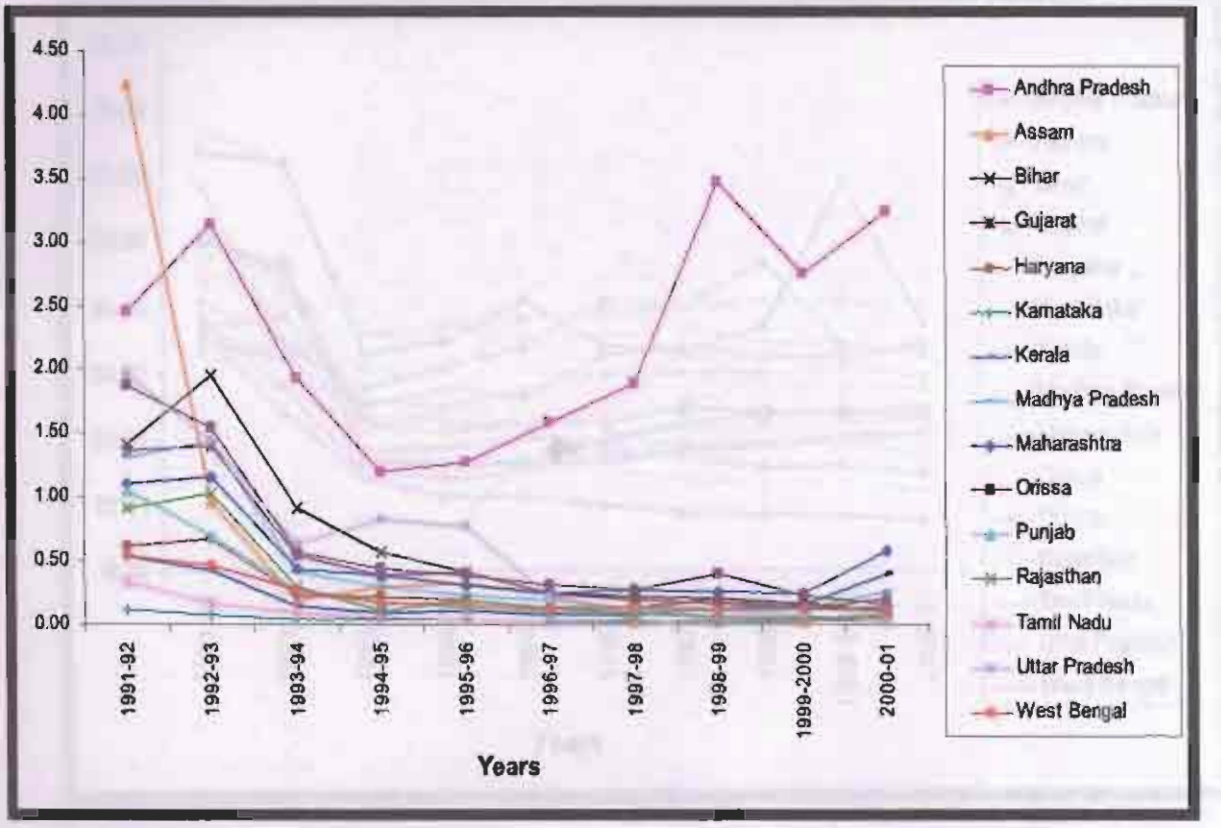


Figure 4: Trends in Female Sterilization in Major States: 1991-2001

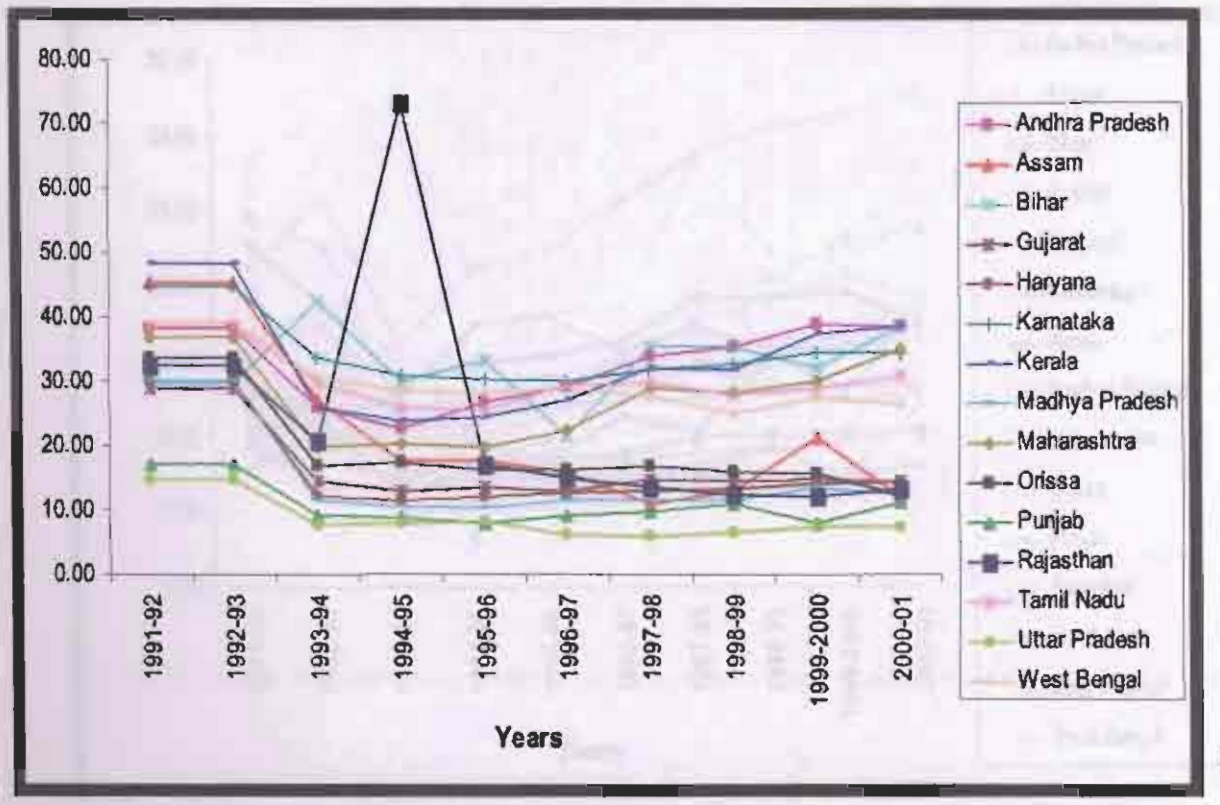


Figure 5: Trends in IUD insertion Major States: 1991-2001

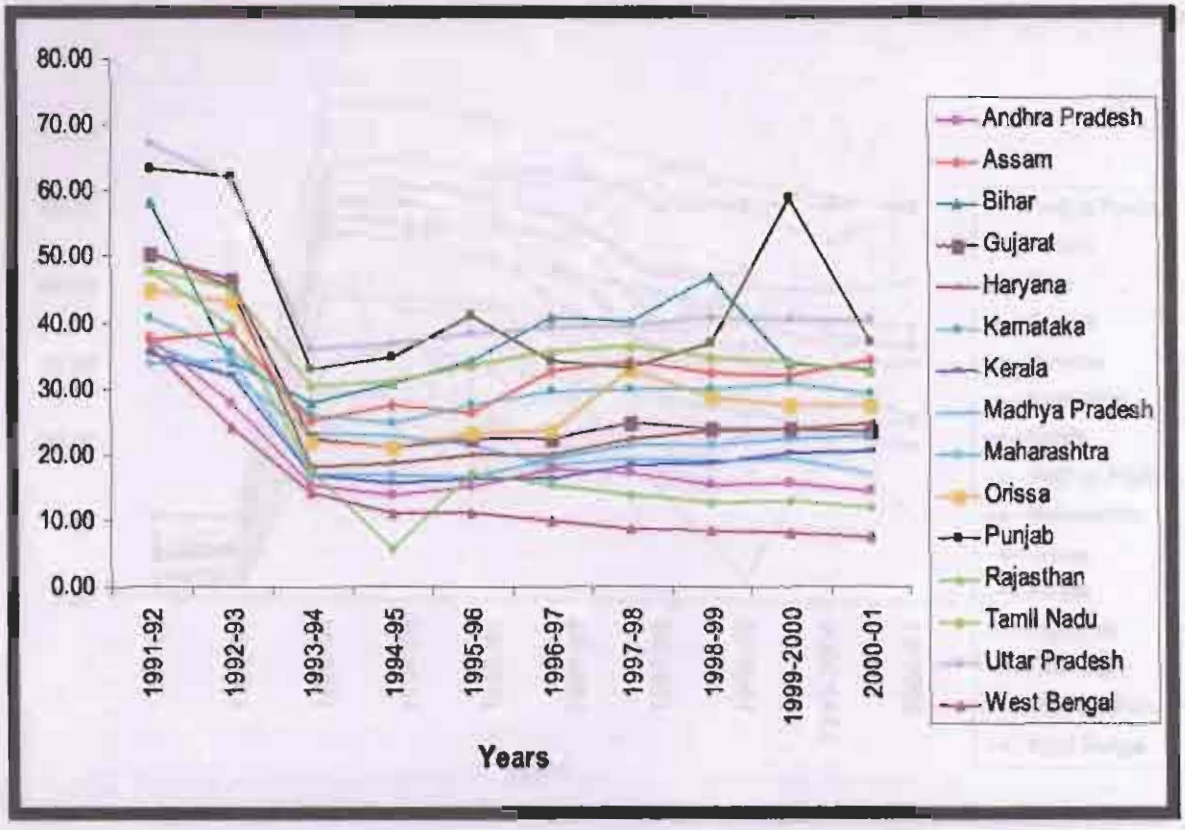


Figure 6: Trends in Oral Pill consumption in Major States: 1991-2001

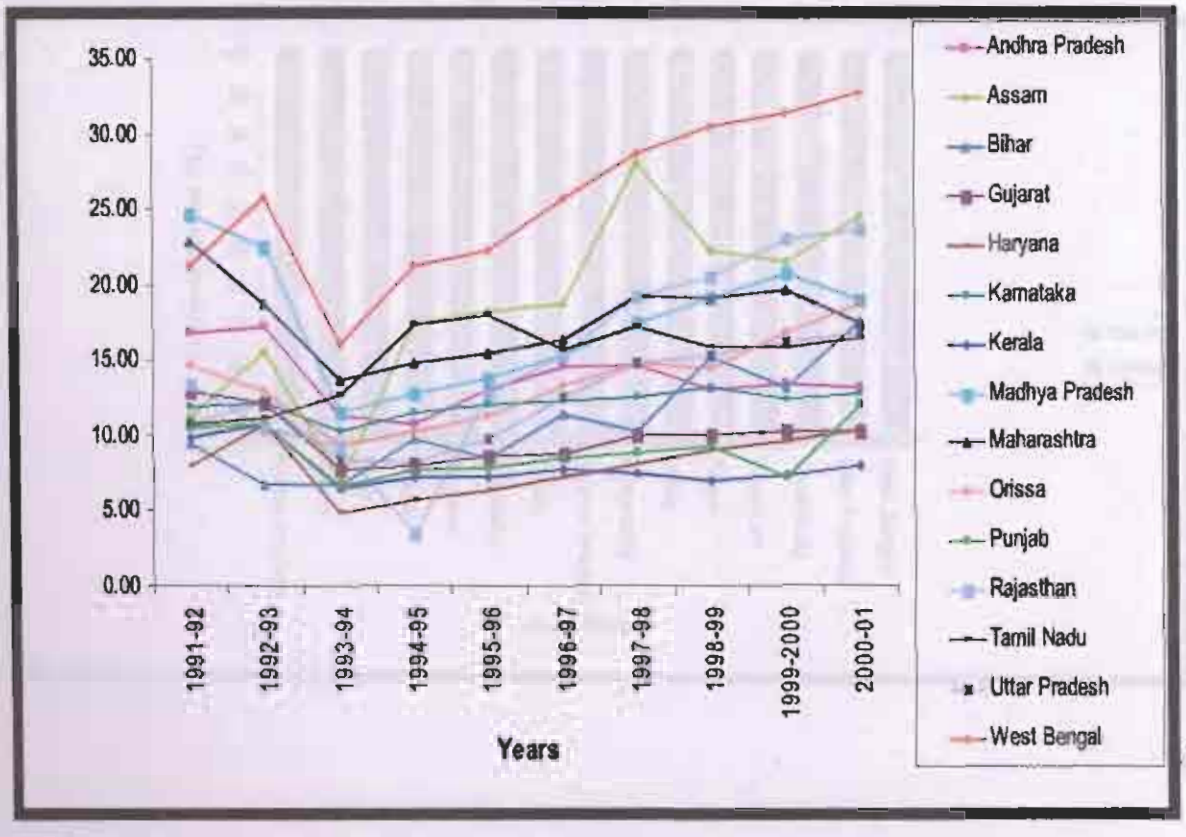


Figure 7: Trends in Condom use in Major States: 1991-2001

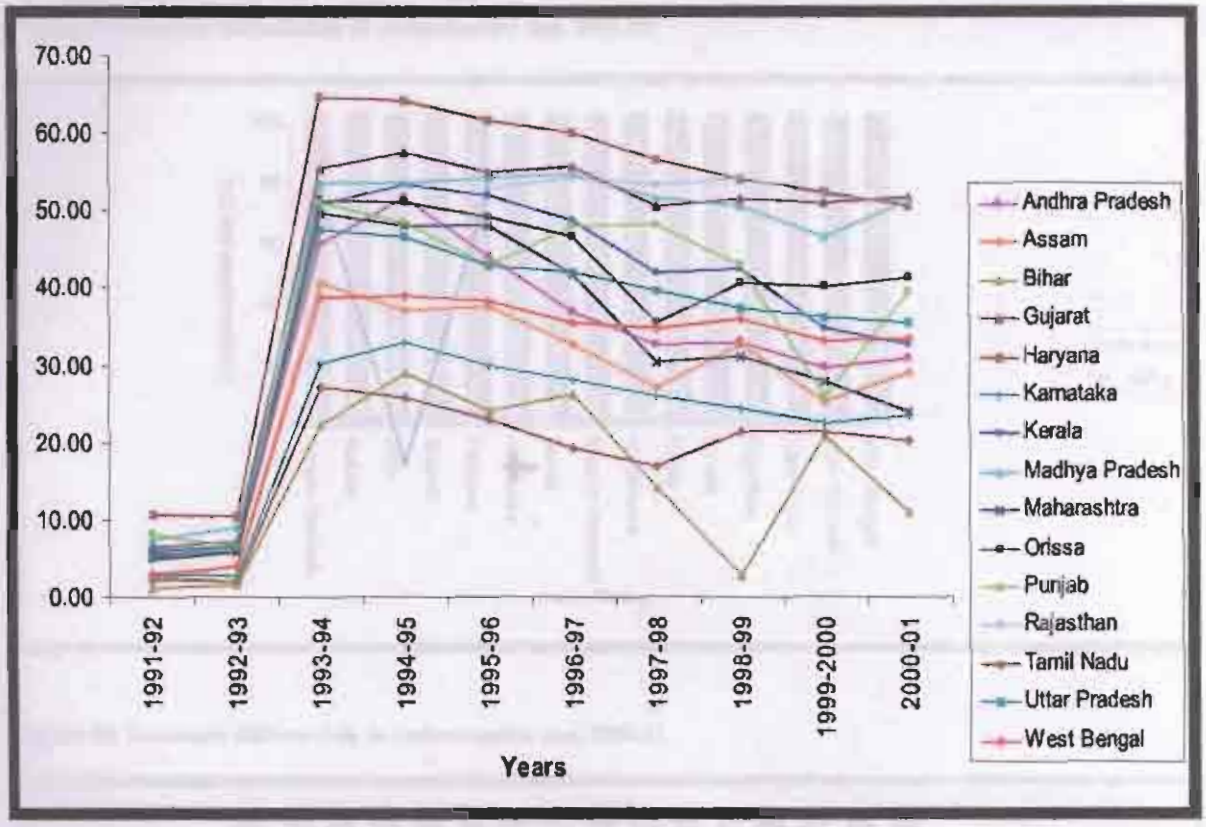


Figure 8: Interstate differentials in contraceptive use, 1991-92

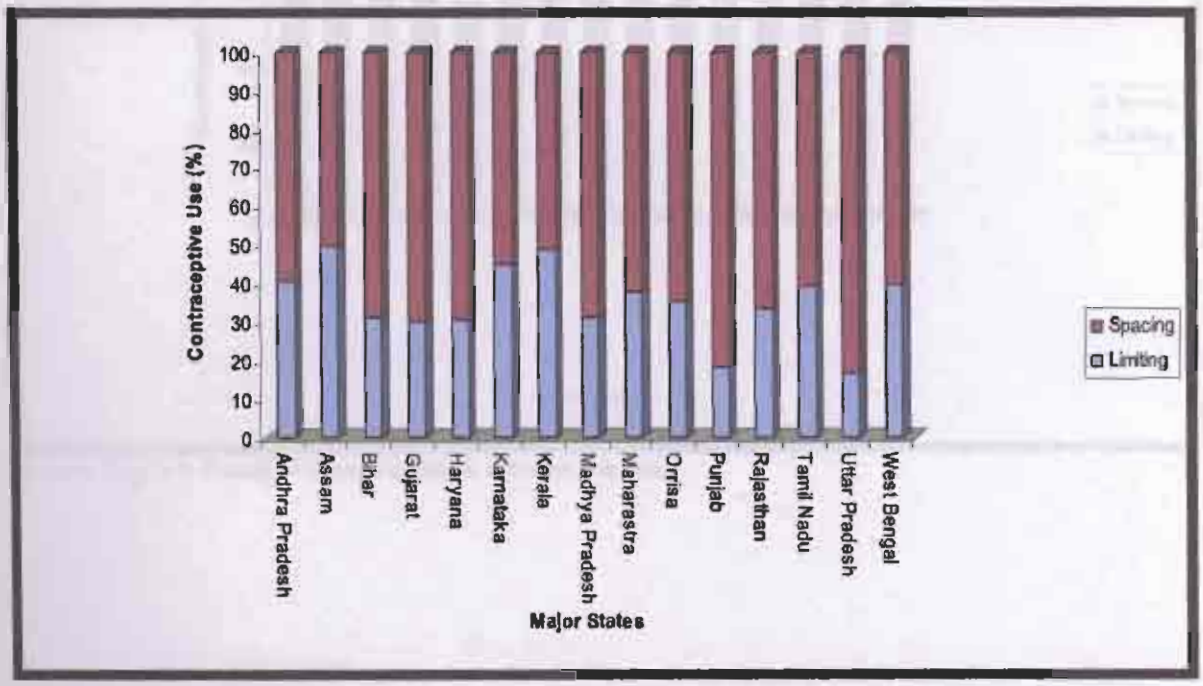


Figure 9: Interstate differentials in contraceptive use, 1997-98

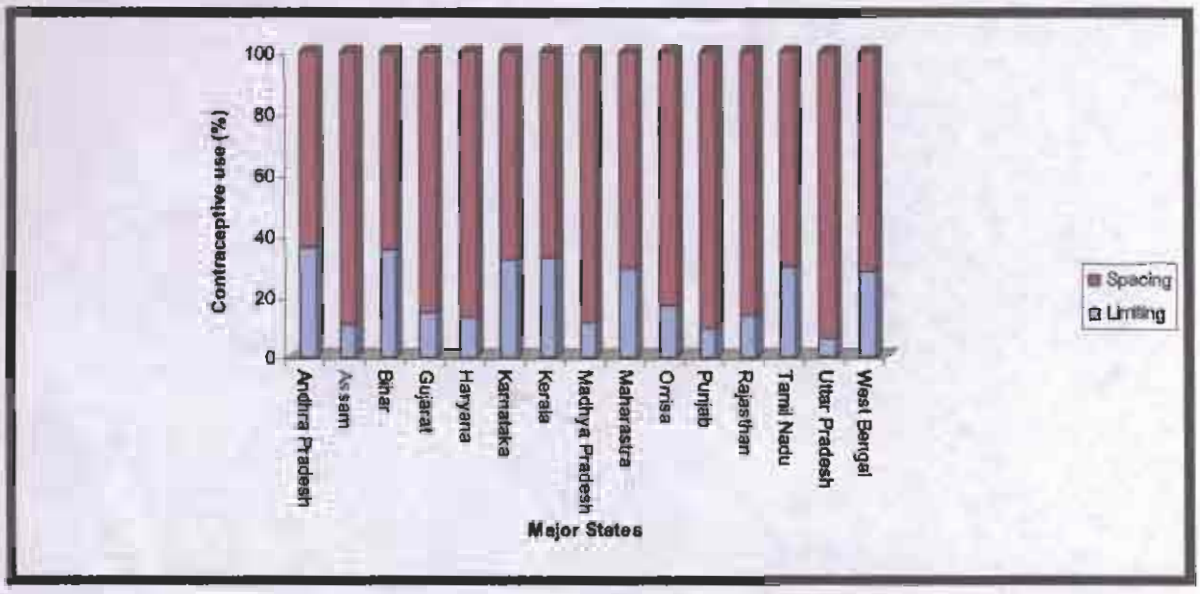
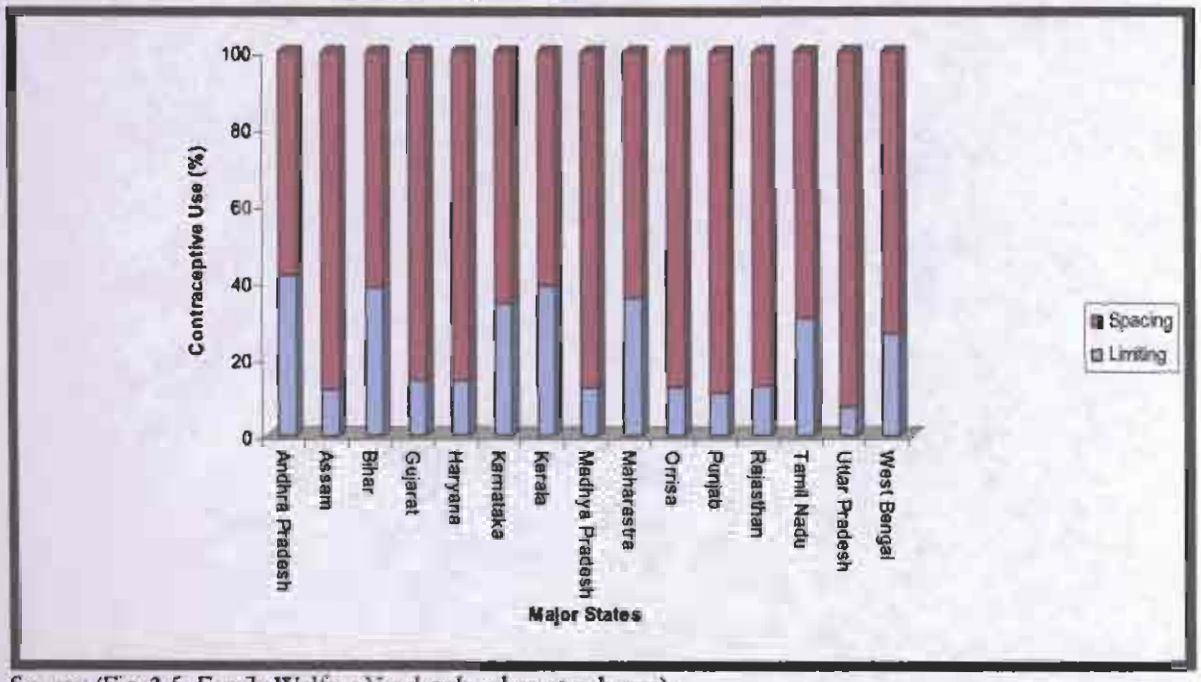


Figure 10: Interstate differentials in contraceptive use, 2000-01



Source: (Fig. 3-5: Family Welfare Yearbook, relevant volumes).