Understanding Pre and Post ICPD Reproductive Health Situation of Indian Married Women

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Introduction

The International Conference on Population and Development (ICPD) held in Cairo in 1994 marked a major paradigm shift in the conceptualization on reproductive health and on issues related to population and development. The reproductive and child health approach that emerged as from the 1994 ICPD provided a framework for each country to evolve their population policy.

Although India was the first country to adopt a family planning program in 1952, it is still growing by 15.5 million people each year. In this respect, the Ministry of Health released the National Population Policy 2000 in February 2001. The policy aims to reduce the total fertility rate to replacement level by 2010 and to achieve a stable population by 2045, at a level consistent with sustainable economic growth, social development, and environmental protection. Among the goals of the policy are keeping the girls in school longer, raising the marriage age of girls, reducing infant and maternal mortality, and achieving universal immunization of children against vaccine-preventable disease. However, the foremost goals are addressing the unmet needs for reproductive and child health services, supplies and infrastructure. Recognizing the fact that Indian women do not generally decide their reproductive behavior, the proposed policy would focus on information and education campaigns on men to promote small families and to raise awareness of the benefits of birth spacing, better health and nutrition, and better education.

Women's health has improved all around the world during the past 4 decades. A growing number of women now have access to education, marry later, and use contraception to have smaller families. All of these developments contribute to better reproductive health (Garg; 1997). However, a large number of women still die each year due to reproductive health related and largely preventable causes.

WHO defines reproductive health as people having the ability to reproduce, to regulate fertility, and to practice and enjoy sexual relationships. It also means safe pregnancy, child-birth, contraceptives, and sex. Procreation should include a successful outcome as indicated by infant and child survival, growth, and healthy development. Zucker (2001) portrays briefly the reproductive issues of Indian women. Given the paradigm policy shift in India from promoting fertility reduction to meeting women's reproductive and sexual health needs, it is necessary to assess the reproductive heath situation in different states in India for implementing a more useful reproductive heath programme.

Therefore, an index is needed which can provide comprehensive information on reproductive health. The population foundation of India has developed a reproductive health index. This index measures the extent of reproductive health care services provided to the women in the population not only in terms of basic health services offered to them at the time of delivery and contraceptive services, but also in terms of reduction in infant mortality and their fertility levels.

The main objectives of this study are: (i) to understand the factor influencing the reproductive health-and (ii) to estimate the reproductive health index to measure reproductive health status - of married Indian women of different Indian states.

Here in this paper an attempt has been made to develop a composite Reproductive Health Index (RHI) suitable for Indian mothers by including a few more parameters representing health aspects of reproductive health. The nine parameters viz., total fertility rate, infant mortality rate, median age at marriage, length of birth interval, birth order, medical attention, couple protection rate, level of mothers education, AIDS awareness are taken in to account in the construction of RHI. Firstly, indices for these parameters are computed and then a weighted index of these parameters representing the reproductive health of married women is defined. Indices for these parameters contributing the measurement of reproductive health and reproductive health index for Indian married women for each state are computed over two periods of times. The data used for these computations are taken from Indian National Family and Health Surveys 1992-93 and 1998-99.

Methods and Materials:

This study is based on two large data sets viz., Indian National Family and Health Surveys conducted during 1992-93 (NFHS-1) and 1998-99(NFHS-2). NFHS-1 covered 24 Indian states and National Capital Territory of Delhi and NFHS-2 covered all 26 states. In the first survey interviews were conducted with a nationally representative sample of 89,777 ever-married women in the age group 13-49, and this size was more than 90,000 eligible married women age 15-49. Both the surveys collected information on fertility, family planning, mortality, maternal and child health.

To measure the reproductive health status of a particular population, it is necessary to construct an index, which reflects the relative status of that population. In the present study the reproductive health index (RHI), constructed in the monograph (1997) is applied to measure the reproductive health status of married women of different states of India. The index is constructed by combining nine parameters relevant to maternal health: the total fertility rate (TFR); the infant mortality rate, the proportion of higher order births, i.e., order 4 and above; the proportion of adequately spaced births, i.e., with spacing of 36 months or more; the proportion of births receiving skilled attention at the time of delivery; the educational attainment of women, the age at marriage, the practice of contraception among couples, and proportion of AIDS awareness. These nine parameters are first converted to indices and then combined into a composite reproductive health index by assigning equal weights for each of the six component indices. The index also varies on a 0 to 100 scale.

The indices for different parameters are calculated as:

Index of TFR (I_1) = {(Max. (TFR) – Observed (TFR)/ {(Max (TFR) – Min. (TFR)} * 100

Index of IMR (I_2) = {(Max (IMR) – Observed (TFR)/ {(Max (TFR) – Min. (TFR)} * 100

Index of birth order (I_3) = {(Max (BR) – Observed (BR)/ {(Max (BR) – Min.(BR)}* 100,

where BR = Birth order of 4 and above.

Index of birth interval (I_4) ={(percentage of birth interval 36 months and above) /75} * 100

Index of medical attention (I_5) = [{3 (percentage of institutional birth) + Percentage of deliveries attended by trained persons} / 4] *100.

Index of education (I_6) = {(2 * adult literacy rate + middle school enrollment) / 3}*100

Index of Marriage (I_7) = {(Observed (AM)- Min. (AM)) /((Max (AM) – Min. (AM))} * 100
where, AM = Age at marriage.

Index of Contraception Prevalence rate (I_8)
= {(Observed (CPR)- Min. (CPR))/ (Max (CPR) –Min. (CPR)} * 100

where, CPR = Contraception prevalence rate.

Index of AIDS Awareness (I_9) = {(Observed (AIDS aware) – Min. (AIDS aware))/
{(Max (AIDS aware) – Min. (AIDS aware)} * 100 .

Based on these parameters the index of reproductive health of the surveyed population has been obtained. The index varies from 0 to 100 scales.

These indices are so designed that the higher values of these indices reflect the better maternal health status.

Reproductive Health Index is calculated as:

RHI = [I_1 + I_2 + I_3 + I_4 + I_5 + I_6 + I_7 + + I_8 + I_9]/ 9.

Relative change in reproductive health index during NFHS-1 and NFHS-2 is:
[(RHI2 – RHI1) / RHI1] * 100.

Results and Discussions:

Ambitious quantitative goals for reducing mortality and increasing access to health interventions are nothing new to the areas of child, maternal, and reproductive health. They are the standard fare of global declarations and national 5-year plans (Freedman et al. 2005).

To understand reproductive health situation and relative change over pre and post ICPD declaration NFHS-1 (1992-93) and NFHS-2 (1998-99) data are used to estimate reproductive health indices of Indian married women. NFHS-1 data indicates reproductive health pre ICPD situation whereas NFHS- 2 describe ICPD 5+ scenario in India. India's diversity is evident especially when examining the variation in reproductive health parameters across the country.

India's population of over 1.1 billion is still growing by 1.5% per year. Despite improvements in lowering infant and maternal mortality, every year 65 infants die per 1000 live births and some 400 women perish in childbirth per 100,000 live births. Most of these preventable deaths occur in rural villages where trained personnel and supplies are not available. As many as 11 states have TFR greater than 2.5. Just four Indian states have below or equal or slightly above replacement level fertility. Only 10 states have IMR less 50 per thousand.

With the contraceptive prevalence rate hovering below 50% for all methods, the government recently abandoned contraceptive targets. NFHS 1 reports only 41% uses contraceptives while it very low in most of the Northeastern states, Uttar Pradesh, Bihar, Rajasthan, Madhya Pradesh and Orissa. Over- all number of contraceptives users increased by 8% only by the year 1998-99. This trend of increment is observed in all states of India. It indicates only a very limited number of Indian women have the opportunity to choose whether or when to have a child. Women, particularly women in rural areas, do not have access to safe and self-controlled methods of contraception. The public health system emphasizes permanent methods like sterilization, or long-term methods like IUD's that do not need follow-up and are thus felt to be more 'fool-proof' than other spacing methods. In fact, sterilization accounts for more than 75% of total contraception, with female sterilization accounting for almost 95% of all sterilizations. (Office of the United Nations Resident Coordinator in India, 2001)

A new report by NACO says the HIV/AIDS epidemic is soaring amongst women in certain states of India. Women are much more susceptible on exposure to the AIDS virus than men. The data shows that awareness level of AIDS among married women very sharply among different states of India. This level is above (or nearly) 80% in Delhi, Manipur, Mizoram, Kerala and Tamil Nadu. It is very poor in Rajasthan, Madhya Pradesh, Uttar Pradesh, and Bihar. The linkages between reproductive health and HIV/AIDS prevention and care must be strengthened in order to achieve internationally agreed development goals (Global AIDS Link. 2004)

The RHI is constructed to measure the reproductive health status of the states of India. Indices for the nine parameters measuring their contribution in RHI and RH Indices over the period 1992-1999 are calculated for all 24 Indian states save Tripura and Sikkim. These indices are also compared among different Indian states. It is found that reproductive heath of mothers of Kerala and Uttar Pradesh are best and worst respectively in 1999. For pre ICPD situation i.e., in the year 1992, RH indices are least for the states of Bihar and Uttar Pradesh but for Kerala it was highest. In the last few years, as an outcome of affirmative policies and programs, women's reproductive health position in 80 % of the Indian states has improved considerably. The increases in RHI in eight states are marginal (less than 5% only). There is a wide variation of reproductive health scenario among Indian married women living in different parts of India. The

relative change in reproductive health indices for mothers in 5 Indian states have gone down over 1992-99. In spite of maximum relative change of RHI over this period in Uttar Pradesh, it remains bottom of all the states. It must be a matter great concern for the policy makers. The relative positive changes in RH Indices are less than 20% in as many as 11 Indian states. This research reveals the grim reproductive health situation among Indian married women. It seems the uniform RH program will not be able to achieve ICPD goal in near future in India. Our study is consistent with the findings of the study based on fifty five developing countries (Ross and Begala, 2005). Thus the proposed RHI can provide comprehensive information on reproductive health.

--- Tables 1 and 2 about here---

Ranjan (2004) estimated maternal mortality ration per 100, 000 for different states of India. According to his estimates it is highest in Orissa both in the year 1992-93 and 1999, it is least in Mizoram (59) followed by Kerala (71) during 1992-93 and but in the year 1999, Kerala has the lowest (37) estimated MMR. According to Ranjan (2004) in 1999, MMR in Orissa (621) is followed by states like Madhya Pradesh (605), Uttar Pradesh (604), Rajasthan (503), Assam (477) and Bihar (448). In most of the states MMR has gone down considerably over the period 1992-99, save a few states. As expected, RHI should be inversely proportional to MMR. Our estimated values of RHI are consistent with those of MMR due to Ranjan (2004).

--- Table 3 about here ---

Experience from successful maternal health programmes shows that much of this death and suffering could be avoided if all women had the assistance of a skilled health worker during pregnancy and delivery, and access to emergency medical care when complications arise.

Approximately 600,000 women die annually from pregnancy related causes, 99 percent of them are in developing countries. These causes of death are preventable. Most often adolescents, youth and women have to cross the reproductive period with reproductive problem. As a result of this realization, the International Conference on Population and Development (ICPD) held at Cairo, September 1994, highlighted the objective of universal access to reproductive health care by the year 2015.

The hallmark of India's new National Population Policy 2000 is its emphasis on improving the quality of reproductive health care by working more closely with community based organizations and women's groups. Much remains to be done. A recent National Family Health Survey found that only 13% of women interviewed had received a home visit from a health care worker during the 12 months preceding the survey. All Indian Institutional delivery is very low (33.6 %). Less 50 per cent of married women in sixteen out of twenty four states had availed institutional delivery.

Women are much more susceptible on exposure to the AIDS virus than men. A new report by UNAIDS for World AIDS Day 2004 says the HIV/AIDS epidemic is soaring amongst women in certain regions like sub-Saharan Africa and the Central Asian countries. Reliable access to contraceptives is one of the fundamental requirements for reproductive health. Yet millions of people in developing countries go without these essentials, leaving them vulnerable to unwanted pregnancy, HIV/AIDS, and other sexually transmitted infections. Comprehensive sexuality education should be a priority and every HIV/AIDS strategy should include services to promote sexual and reproductive

health if HIV/AIDS prevention programs are to be successful, says the International Women's Health Coalition.

For most programmes in developing countries reproductive health has been equated with family planning programme. WHO recognizes the importance of family planning and reproductive health services for improving health and human development, especially for poor people. Though reproductive health is not a new health concept but in India it has been largely neglected. In India during the later part of the 1980s, efforts were made to improve women's reproductive health and the Eighth Five Year Plan (1993-1998) had included a safe motherhood programme for lowering maternal mortality.

Indian National programs to improve maternal health are far from satisfactory, as assessed here, with negligible improvement from 1992–1999. Efforts fall short in general, but considerably more so for some program features than others. Literal access to basic services is poor, and is especially lacking in rural areas. Regions differ much more in the access they provide to services than in other respects.

Social, cultural and economic factors continue to inhibit Indian women from gaining adequate access even to the existing public health facilities. NHP-2002 envisages the identification of specific programmes targeted at women's health. The Policy notes that women, along with other under-privileged groups, are significantly handicapped due to a disproportionately low access to health care. The various Policy recommendations of NHP-2002, in regard to the expansion of primary health sector infrastructure, will facilitate the increased access of women to basic health care. The Policy commits the highest priority of the Central Government to the funding of the identified programmes relating to woman's health. Also, the policy recognizes the need to review the staffing norms of the public health administration to meet the specific requirements of women in a more comprehensive manner.

It is self-evident that in a country as large as India, which has a wide variety of socio-economic settings, National health programmes have to be designed with enough flexibility to permit the State public health administrations to craft their own programme package according to their needs.

The findings of this paper will help the Indian policy makers and programme managers of any RCH programme to formulate basic health and reproductive services according to the needs of the mothers of different Indian states to achieve desirable RH goals of ICPD. One factor contributing to today's severe shortages of reproductive health commodities and services is insufficient donor funding. While demand for reproductive health services and commodities is increasing, donor support is dwindling. Developing countries like India needs sufficient financial resources to implement the expanded RH programs and services envisioned by the ICPD. This analysis will help the policy makers and programme managers to make progress in implementing the RH goals of ICPD in different Indian states, to: (i) set priorities, (ii) prepare budget allocations, (iii) make improvements in existing services, and (iv) craft strategies for phasing in RH interventions.

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Table 1. Values of Input parameters for Estimating Reproductive Health Index

STATE	Total Fertility Rate1	Total Fertility Rate2	Infant Mortality Rate1	Infant Mortality Rate2	Birth Order1	Birth Order2	Birth Interval1	Birth Interval2	Place of Delivary2	Trained Attended2	Awareness of Aids1
India	3.39	2.85	78.50	67.60	30.90	27.50	31.60	30.80	33.60	42.30	#NULL!
Delhi	3.02	2.40	65.40	46.80	26.90	21.60	30.60	33.60	59.10	65.90	35.80
Haryana	3.99	2.88	73.30	56.80	28.30	24.90	28.10	30.00	22.40	42.00	#NULL!
Himachal Pradesh	2.97	2.14	55.80	34.40	21.40	14.00	28.30	29.40	28.90	40.20	#NULL!
Jammu & Kasmir	3.13	2.71	45.40	65.00	25.50	32.20	30.90	32.50	35.90	42.40	#NULL!
Punjab	2.92	2.21	53.70	57.10	22.60	18.50	29.30	28.00	37.50	62.60	#NULL!
Rajasthan	3.63	3.78	72.60	80.40	33.50	34.80	32.50	29.50	21.50	35.80	#NULL!
Madhya Pradesh	3.90	3.31	85.20	86.10	32.90	35.00	32.10	30.20	20.10	29.70	#NULL!
Utter Paradesh	4.82	3.99	99.90	86.70	41.10	39.90	32.10	30.40	15.50	22.40	#NULL!
Bihar	4.00	3.49	89.20	72.90	40.10	37.30	33.90	32.30	14.60	23.40	#NULL!
Orissa	2.92	2.46	112.10	81.00	28.20	24.50	32.70	32.90	22.60	33.40	#NULL!
West Bengal	2.92	2.29	75.30	48.70	28.90	19.90	31.70	33.60	40.10	44.20	9.80
Arunachal Pradesh	4.25	2.52	40.00	63.10	36.60	29.70	29.80	29.90	31.20	31.90	16.20
Assam	3.53	2.31	88.70	69.50	40.80	27.50	29.80	30.60	17.60	21.40	8.40
Manipur	2.76	3.04	42.40	37.00	33.10	30.40	31.60	31.80	34.50	53.90	72.50
Meghalaya	3.73	4.57	64.20	89.00	37.90	46.50	27.50	28.50	17.30	20.60	26.70
Mizoram	2.30	2.89	14.60	37.00	24.70	22.70	27.60	28.40	57.70	67.50	84.80
Nagaland	3.26	3.77	17.20	42.10	31.60	43.20	28.10	27.50	12.10	32.80	40.90
Tripura/Sikhim	2.67	2.75	75.80	43.90	29.80	27.30	33.90	32.60	31.50	35.10	13.20
Goa	1.90	1.77	31.90	36.70	14.50	7.80	35.20	34.80	90.80	90.80	41.70
Gujrat	2.99	2.72	68.70	62.60	24.20	20.80	30.00	29.00	46.30	53.50	10.60
Maharashtra	2.86	2.52	50.50	43.70	23.00	18.00	28.70	29.00	52.60	59.40	18.60
Andhra Pradesh	2.59	2.25	70.40	65.80	21.50	15.00	33.40	31.10	49.80	65.20	#NULL!
Karnataka	2.85	2.13	65.40	51.50	24.60	18.80	29.90	29.70	51.10	59.10	#NULL!
Kerala	2.00	1.96	23.80	16.30	10.50	6.70	34.90	38.10	93.00	94.00	#NULL!
Tamil Nadu	2.48	2.19	67.70	48.20	14.10	9.10	31.60	30.50	79.30	83.80	23.40

Contd.

STATE	Awareness of Aids2	Adult Literacy Rate1	Middle school Enrolment Rate1	Adult Literacy Rate2	Middle school Enrolment Rate2	Contraceptive User1	Contraceptive User2	Median Age At Marriage1	Median Age At Marriage2
India	40.30	56.30	9.40	41.80	8.20	40.60	48.20	16.10	17.00
Delhi	79.20	79.00	12.90	70.90	11.50	60.30	63.80	18.30	19.30
Haryana	44.30	59.90	9.30	44.80	8.10	49.70	62.40	16.00	17.90
Himachal Pradesh	60.90	67.90	11.20	63.70	12.60	58.40	67.70	17.70	18.80
Jammu & Kasmir	31.90	63.10	15.00	70.20	8.90	49.40	49.10	17.80	18.40
Punjab	54.60	59.20	10.50	61.20	10.50	58.70	66.70	19.00	20.10
Rajasthan	20.80	43.90	7.60	24.50	5.90	31.80	40.30	15.00	16.40
Madhya Pradesh	22.70	49.80	7.50	31.50	5.70	36.50	44.30	14.50	16.00
Utter Paradesh	20.20	48.00	8.90	29.80	6.80	19.80	28.10	15.10	16.30
Bihar	11.70	44.60	6.30	23.40	3.80	23.10	24.50	14.70	16.30
Orissa	39.00	55.20	6.90	40.40	6.90	36.30	46.80	16.60	17.60
West Bengal	26.40	65.60	11.00	50.00	10.10	57.40	66.60	16.00	16.90
Arunachal Pradesh	60.40	52.10	7.80	47.30	13.80	23.60	35.40	18.20	18.80
Assam	33.70	60.50	11.80	46.10	14.10	42.80	43.30	16.90	18.20
Manipur	92.90	74.00	13.70	57.10	17.10	34.90	38.70	20.80	21.80
Meghalaya	44.20	63.60	10.20	61.90	11.60	20.70	20.20	19.00	19.30
Mizoram	93.20	91.10	16.70	90.00	22.80	53.80	57.70	21.00	22.00
Nagaland	72.40	75.80	13.60	60.20	15.10	13.00	30.30	20.10	20.20
Tripura/Sikhim	53.60	72.80	14.80	50.60	11.20	56.10	53.80	17.20	19.80
Goa	76.30	80.60	13.60	71.40	12.50	47.80	47.50	21.70	23.20
Gujrat	29.80	63.70	8.80	49.70	8.70	49.30	59.00	17.90	18.20
Maharashtra	61.10	67.90	10.50	55.40	10.80	53.70	60.90	16.10	16.70
Andhra Pradesh	55.30	49.40	9.90	36.20	4.80	47.00	59.60	15.10	15.40
Karnataka	58.10	57.60	6.90	44.80	6.60	49.10	58.30	16.60	17.00
Kerala	86.90	86.00	20.00	87.40	17.10	63.30	63.70	19.80	20.30
Tamil Nadu	87.30	66.40	12.10	52.50	13.40	49.80	52.10	18.10	18.80

Table 2. Indices of different parameters describing reproductive health, relative changes of these parameters and RHI

STATE	Index of TFR1	Index of TFR2	Index of IMR1	Index of IMR2	Index of Birth order1	Index of Birth order2	Index of Birth interval1	Index of Birth interval2
India	46.89	64.59	34.46	45.64	39.20	47.74	42.13	41.07
Delhi	59.02	79.34	47.90	66.97	49.25	62.56	40.80	44.80
Haryana	27.21	63.61	39.79	56.72	45.73	54.27	37.47	40.00
Himachal Pradesh	60.66	87.87	57.74	79.69	63.07	81.66	37.73	39.20
Jammu & Kasmir	55.41	69.18	68.41	48.31	52.76	35.93	41.20	43.33
Punjab	62.30	85.57	59.90	56.41	60.05	70.35	39.07	37.33
Rajasthan	39.02	34.10	40.51	32.51	32.66	29.40	43.33	39.33
Madhya Pradesh	30.16	49.51	27.59	26.67	34.17	28.89	42.80	40.27
Utter Paradesh	.00	27.21	12.51	26.05	13.57	16.58	42.80	40.53
Bihar	26.89	43.61	23.49	40.21	16.08	23.12	45.20	43.07
Orissa	62.30	77.38	.00	31.90	45.98	55.28	43.60	43.87
West Bengal	62.30	82.95	37.74	65.03	44.22	66.83	42.27	44.80
Arunachal Pradesh	18.69	75.41	73.95	50.26	24.87	42.21	39.73	39.87
Assam	42.30	82.30	24.00	43.69	14.32	47.74	39.73	40.80
Manipur	67.54	58.36	71.49	77.03	33.67	40.45	42.13	42.40
Meghalaya	35.74	8.20	49.13	23.69	21.61	.00	36.67	38.00
Mizoram	82.62	63.28	100.00	77.03	54.77	59.80	36.80	37.87
Nagaland	51.15	34.43	97.33	71.79	37.44	8.29	37.47	36.67
Goa	95.74	100.00	82.26	77.33	80.40	97.24	46.93	46.40
Gujrat	60.00	68.85	44.51	50.77	56.03	64.57	40.00	38.67
Maharashtra	64.26	75.41	63.18	70.15	59.05	71.61	38.27	38.67
Andhra Pradesh	73.11	84.26	42.77	47.49	62.81	79.15	44.53	41.47
Karnataka	64.59	88.20	47.90	62.15	55.03	69.60	39.87	39.60
Kerala	92.46	93.77	90.56	98.26	90.45	100.00	46.53	50.80
Tamil Nadu	76.72	86.23	45.54	65.54	81.41	93.97	42.13	40.67

Contd.

Table 2. Contd.

STATE	Index of Medical Attendance	Index of Awareness of Aids2	Index of Education1	Index of Education2	Index of contraceptive prevalence rate1	Index of contraceptive prevalence rate2
India	35.78	35.09	40.67	30.60	50.46	64.35
Delhi	60.80	82.82	56.97	51.10	86.47	92.87
Haryana	27.30	40.00	43.03	32.57	67.09	90.31
Himachal Pradesh	31.73	60.37	49.00	46.67	83.00	100.00
Jammu & Kasmir	37.53	24.79	47.07	49.77	66.54	66.00
Punjab	43.78	52.64	42.97	44.30	83.55	98.17
Rajasthan	25.08	11.17	31.80	18.30	34.37	49.91
Madhya Pradesh	22.50	13.50	35.70	22.90	42.96	57.22
Utter Paradesh	17.23	10.43	34.97	22.13	12.43	27.61
Bihar	16.80	.00	31.83	16.87	18.46	21.02
Orissa	25.30	33.50	39.10	29.23	42.60	61.79
West Bengal	41.13	18.04	47.40	36.70	81.17	97.99
Arunachal Pradesh	31.38	59.75	37.33	36.13	19.38	40.95
Assam	18.55	26.99	44.27	35.43	54.48	55.39
Manipur	39.35	99.63	53.90	43.77	40.04	46.98
Meghalaya	18.13	39.88	45.80	45.13	14.08	13.16
Mizoram	60.15	100.00	66.30	67.60	74.59	81.72
Nagaland	17.28	74.48	55.07	45.17	.00	31.63
Goa	90.80	79.26	58.27	51.77	63.62	63.07
Gujrat	48.10	22.21	45.40	36.03	66.36	84.10
Maharashtra	54.30	60.61	48.77	40.53	74.41	87.57
Andhra Pradesh	53.65	53.50	36.23	25.73	62.16	85.19
Karnataka	53.10	56.93	40.70	32.07	66.00	82.82
Kerala	93.25	92.27	64.00	63.97	91.96	92.69
Tamil Nadu	80.43	92.76	48.30	39.47	67.28	71.48

Table 2. Contd.

Contd.

STATE	Index of Median age at marriage1	Index of Median age at marriage2	Reproductive Health Index1	Reproductive Health Index2 All parameters	Reproductive Health Index2	Relative Change in Reproductive Health Index	Relative Change in Reproductive Health Index (for all parameters)
India	18.39	28.74	38.88	43.73	46.10	18.57	12.47
Delhi	43.68	55.17	54.87	66.27	64.69	17.90	20.78
Haryana	17.24	39.08	39.65	49.32	53.79	35.66	24.37
Himachal Pradesh	36.78	49.43	55.43	64.07	69.22	24.88	15.59
Jammu & Kasmir	37.93	44.83	52.76	46.63	51.05	-3.25	-11.62
Punjab	51.72	64.37	57.08	61.44	65.22	14.26	7.63
Rajasthan	5.75	21.84	32.49	29.07	32.20	-.90	-10.53
Madhya Pradesh	.00	17.24	30.48	30.97	34.67	13.74	1.58
Utter Paradesh	6.90	20.69	17.60	23.16	25.83	46.79	31.63
Bihar	2.30	20.69	23.46	25.04	29.80	26.99	6.72
Orissa	24.14	35.63	36.82	43.76	47.87	30.02	18.87
West Bengal	17.24	27.59	47.48	53.45	60.27	26.94	12.58
Arunachal Pradesh	42.53	49.43	36.64	47.26	47.75	30.32	28.99
Assam	27.59	42.53	35.24	43.71	49.70	41.02	24.05
Manipur	72.41	83.91	54.45	59.10	56.13	3.07	8.53
Meghalaya	51.72	55.17	36.39	26.82	26.19	-28.02	-26.31
Mizoram	74.71	86.21	69.97	70.41	67.64	-3.33	.62
Nagaland	64.37	65.52	48.97	42.80	41.93	-14.39	-12.60
Goa	82.76	100.00	72.85	78.43	76.54	5.07	7.65
Gujrat	39.08	42.53	50.20	50.65	55.07	9.71	.90
Maharashtra	18.39	25.29	52.33	58.24	58.46	11.71	11.29
Andhra Pradesh	6.90	10.34	46.93	53.42	53.38	13.73	13.83
Karnataka	24.14	28.74	48.32	57.02	57.60	19.20	18.02
Kerala	60.92	66.67	76.70	83.52	80.88	5.45	8.89
Tamil Nadu	41.38	49.43	57.54	68.88	63.83	10.93	19.72

Table 3: Risk of death due to complications of pregnancy and child birth in India

STATE	Number of maternal deaths per 100,000 per year	
	1992-93	1999
India	482	396
Delhi	318	113
Haryana	466	418
Himachal Pradesh	365	363
Jammu & Kasmir	274	266
Punjab	271	248
Rajasthan	508	503
Madhya Pradesh	553	605
Utter Paradesh	765	604
Bihar	659	448
Orissa	841	621
West Bengal	468	279
Arunachal Pradesh	267	267
Assam	663	477
Manipur	229	117
Meghalaya	374	327
Mizoram	59	76
Nagaland	108	Na
Goa	98	59
Gujrat	378	296
Maharashtra	240	207
Andhra Pradesh	360	298
Karnataka	326	258
Kerala	71	37
Tamil Nadu	269	178

(Source: Ranjan Alok 2004: Maternal mortality in India. Bhopal, Population Resource Centre Madhya Pradesh.)