INDUCED ABORTION POTENTIAL AMONG INDIAN WOMEN

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ABSTRACT

Information on abortion is limited and inaccurate especially in the developing world, which has led to several speculations on the prevalence of abortion in this region. A rise in prevalence of abortion is mostly accounted for in terms of increase in the prevalence of induced abortions, which reflects on the reproductive health of women. With the growing concern for reproductive health of women, the study of abortion phenomenon has drawn serious attention of researchers world wide. In such circumstances, this is an attempt to assess the induced abortion potential among Indian women by utilising information on proportion of unwanted and ill-timed pregnancies obtained through National Family Health Survey, India.

This exercise may facilitate a better understanding of the exact prevalence of induced abortion which necessarily should be less than the estimated potential depending on the levels of unwanted and ill-timed fertility.

Introduction

The demographic implications of induced abortions have been studied using assessments of its levels and trends, to facilitate an understanding of its effect on fertility and population growth. Family planning programme managers have used induced abortion rates to gauge the need for contraceptive services. However, the public health implications of induced abortions have gained the attention of policy makers only recently. Abortion in clandestine or otherwise unsafe conditions expose women to risk of mortality and morbidity (Khanna et.al. 1994). When access to safe abortion services are limited, abortion complications account for a significant proportion of admissions into gynecological wards (Mpangile et.al. 1993). Research on induced abortions has revived in the wake of this and other evidence indicating that induced abortions have been a major cause for maternal deaths in the developing world, with abortion related complications accounting for nearly half of all maternal deaths (Dixon-Muller, 1990; Royston and Armstrong, 1989 and Royston, 1991).

In most developing countries, the characteristics of women resorting to abortion, or its consequences to their health, remain unknown. Information collected in this context from surveys is said to be incomplete, despite the simplicity in defining an induced abortion. This is mostly because women do not tend to report induced abortions.

If at all an abortion is reported, it is more likely to be categorised as spontaneous abortion rather than an induced one. This has been noticed in several surveys world wide (WHO, 1978).

The National Family Health Survey, 1992, conducted in 25 states in India collected information on the characteristics of women who ever experienced an abortion according to type (spontaneous and induced), the wanted nature and timing of the pregnancies, providing us with an unique opportunity to indirectly assess the potential for induced abortion among Indian women. This information has been earlier used to indirectly measure induced abortions (Huntington, Mensch and Miller, 1996).

The role of the family planning programme in India has been transformed by shifting from being merely one providing contraceptives to one which is more integrated - providing safe abortion services, helping couples restrict ill-timed and unwanted pregnancies and thereby controlling levels of maternal mortality. Ever since induced abortions have been legalised with just minimal restrictions through the Medical Termination of Pregnancy Act, 1971 (Sarkar, 1977); the number of centres offering MTP services have also been increasing over the years (Govt. of India, 1994).

While induced abortion has been an important factor responsible for fertility decline in industrialised countries, it does not seem to have made a significant contribution towards fertility decline in the Indian situation. However, in the Indian context, the potential for induced abortions should not be adjudged from the perspective of fertility decline, but from the dynamics of contraceptive acceptance.

It is evident that for a substantial proportion of couples in India, sterilisation is the first ever-used method of contraception (IIPS, 1995). Such couples may have felt a need to limit their family sizes much earlier

in the family building process or even adjust the timing of the births. As such, it may result in the increasing practice of induced abortions. Contraceptive failure would also contribute to the use of induced abortions. There is evidence to suggest that increases in contraceptive use goes hand in hand with increases in induced abortions, indicating the contribution of possible contraceptive failures.

Estimates of the prevalence of abortions (both induced and spontaneous) have been scarce. Given the fact that Govt. records do not cover the phenomenon exhaustively, there is a need for alternative estimates to gauge its prevalence. The trivial proportions of abortions (spontaneous and induced) reported in surveys clearly indicate a large extent of under-reporting with respect to induced abortions (Barreto et.al., 1992; Casterline, 1989 and Jones and Forrest, 1992).

Induced abortions may be reported as spontaneous abortions in order to avoid admitting morally unaccepted actions. Illegal abortions of a pre-marital and sex selective nature are carried out in the private sector and never come on record. Therefore the abortion phenomenon in India is largely disguised due to incomplete and limited data availability. India's actual abortion rate may probably about two to five times the reported rate of 3 abortions per 1000 women, since only a fraction of the abortions, that is, those performed in registered nursing homes and Govt. facilities are reported (Hanshew, 1990). A large proportion of the abortions that go unreported may have been performed without any medical supervision, thus increasing the risk of secondary infections/ complications for the women undergoing such procedures.

The National Family Health Survey(NFHS) (IIPS, 1995) indicates a very low prevalence of abortion among Indian women. The percentage of pregnancies reported as aborted varies between 3.7 per cent in Madhya Pradesh to 10.3 per cent in Tamil Nadu. Using these proportions of

pregnancy wastage and Crude Birth Rates (CBRs), a simple estimate of abortion per thousand live births varies between 36.4 in Andhra Pradesh to 131.4 in Tamil Nadu. Based on this extent of reported abortions, the consequent influence on fertility is bound to be meager.

Abortion in India: An Overview

Official estimates on annual incidence of induced abortion are limited to the statistics provided by the Ministry of Health and Family Welfare, Govt. of India, which accounts for the reported MTP cases performed in Govt.'s recognised clinics. However, several unofficial estimates of induced abortion in India indicate an increasing trend from 3.9 millions in 1966 (Shah Committee) to 6.7 million by Chhabra et.al (1994).

These estimates are based on varied sets of assumptions. For instance, Shah committee assumes 73 live births, 2 still births and 25 abortions (15 induced and 10 spontaneous) per every 100 pregnancies. With similar assumptions, the recent estimate by Chhabra et.al (1994) finds 6.7 million induced and 4.5 million spontaneous abortions. Further, IPPF (1970) estimates of 6.5 million illegal abortion in India is based on abortion ratio of 200:1000 known pregnancies which results in an abortion rate of about 55:1000 women aged 15-44 years. Besides, other individual estimates by Karkal (1991) indicates 3 illegal abortion per one legal abortion and 4-5 illegal abortion for every MTP in urban area.

With several estimates at hand, it is difficult to assess the exact prevalence of induced abortions. It may be worthwhile at this juncture, to have an assessment of the potential for induced abortions among Indian women, as an alternative to the existing guesstimates, which are based on varied sets of assumptions.

Potential for Induced and Spontaneous Abortions

As the prevalence of abortion increases, induced abortions take up a larger share of the total abortions. Spontaneous abortions are more often associated with biological characteristics of women (Nortman, 1974; WHO, 1970). Nulliparous women, women getting pregnant in the high risk age categories (less than 20 years and above 35 years of age), multiparous women, women with shorter birth intervals are prone to spontaneous abortions (Awan, 1975). In general, there is a biological limit on the proportion of spontaneous abortions in any population, which can at best account for a limited, and more or less constant proportion of the pregnancies (Bongaart and Potter, 1983). In a low fertility situation, with better access to maternal care, the incidence of spontaneous abortions would be low. Even in a high fertility situation, it can not account for a significant proportion of the total abortions. Increases, if any in the abortion rate would always be due to induced abortions.

The potential for induced abortion arises mainly due to unintended pregnancies. Couples may exceed their desired number of children either due to non-contraceptive reasons or due to non-use of contraception. Alternatively, couples who desire additional children may be faced with an ill timed pregnancy. Thus on the whole, both ill-timed and unwanted pregnancies run the risk of being the potential cases for induced abortions.

It should be kept in mind that the reporting of ill-timed and unwanted births are subject to some biases. A birth may be reported as ill timed depending on the possible adverse situation prevailing in the household at the time of the birth. A birth could become unwanted for its not qualifying for the desired sex composition. Therefore, not all unwanted and ill-timed births are due to contraceptive failure or the unmet need for effective contraception. On the other hand, the wrong timing of a desired pregnancy could result in an induced abortion or couples who

desire no more children but have not used any contraception have an unintended pregnancy which may be aborted. However, this is not to say that all unintended pregnancies necessarily have to result in induced abortions but they have fair chance of being aborted voluntarily. But the reporting of ill-timed and unwanted pregnancies have a strong association with the likelihood of abortion. In fact, this phenomenon of ill-timed/ unwanted pregnancy was used as a filter question to identify the incidence of induced abortion accurately (Huntington et.al., 1996).

Assessing Induced Abortion Potential Based on Information on Ill-timed and Unwanted Pregnancies

Using the information on the percentage of pregnancies that resulted in live births by age and the age-specific fertility rates (ASFRs), the age specific pregnancy rates (ASPRs) were derived for the 15 major states. These ASFRs and proportion of pregnancies resulting in live births are presented in Table 1. The resultant ASPRs are products of the age specific fertility rates and the reciprocal of the percentage of the pregnancies resulting in live births and these are given in Table 2. The ASPRs can be understood as the number of women out of a group of 1000 in that age category who will conceive in that year. This is similar to the definition given for ASFRs.

Table 1. The Age Specific Fertility Rates and the Proportion of Pregnancies that resulted in a Live Birth by States, 1992.

States	Reproductive ages							
	15-20	20-24	25-29	30-34	35-39	40-44	45-49	Total
Andhra Pradesh	.144	.202	.101	.047	.019	.005	.000	2.67
	(87.6)	(89.6)	(93.5)	(92.6)	(92.2)	(92.9)	(93.6)	(92.3)
Assam	.116	.200	.195	.117	.065	.021	.000	3.68
	(84.1)	(84.3)	(87.5)	(90.1)	(89.2)	(90.7)	(93.2)	(89.6)
Bihar	.121	.241	.190	.141	.078	.026	.004	4.00
	(89.0)	(93.1)	(92.3)	(94.1)	(93.5)	(94.1)	(93.1)	(93.4)
Gujarat	.086	.251	.157	.074	.021	.005	.004	2.99
	(86.0)	(92.7)	(91.6)	(92.8)	(94.4)	(93.1)	(94.1)	(93.1)
Haryana	.143	.316	.196	.088	.036	.015	.003	3.99
	(86.2)	(85.1)	(89.1)	(89.7)	(89.5)	(91.3)	(92.6)	(89.5)
Karnataka	.129	.206	.134	.064	.024	.006	.005	2.85
	(91.0)	(91.7)	(91.4)	(92.1)	(91.9)	(92.4)	(92.8)	(92.0)
Kerala	.038	.160	.123	.054	.017	.006	.001	2.00
	(81.2)	(88.6)	(89.3)	(88.4)	(90.3)	(91.8)	(92.8)	(90.4)
Madhya Pradesh	.153	.255	.191	.106	.047	.018	,010	3.90
	(91.1)	(92.8)	(94.5)	(94.7)	(94.9)	(94.6)	(96.0)	(94.5)
Maharahstra	.141	.227	.132	.053	.012	.006	.000	2.85
	(93.1)	(91.9)	(92.1)	(92.7)	(93.7)	(93.4)	(93.2)	(92.9)
Orissa	.086	.204	.163	.084	.031	.010	.000	2.92
	(94.20	(92.6)	(91.4)	(92.1)	(92.9)	(93.7)	(94.4)	(92.8)
Punjab	.065	.238	.180	.072	.021	.005	.002	2.92
	(86.1)	(89.0)	(91.2)	(92,1)	(92.6)	(92.9)	(94.6)	(92.0)
Rajasthan	.112	.247	.181	.107	.055	.014	.010	3.63
	(87.0)	(91.6)	(91.5)	(92.8)	(93.6)	(94.0)	(95.2)	(93.1)
Tamil Nadu	.087	.203	.132	.051	.019	.004	.000	2.48
	(74.2)	(84.0)	(84.6)	(84.4)	(85.5)	(88.2)	(89.2)	(86.0)
Uttar Pradesh	.113	.278	.251	.177	.094	.077	.014	4.82
	(90.8)	(90.4)	(92.3)	(91.8)	(91.6)	(92.7)	(92.0)	(91.9)
West Bengal	.123	.202	.138	.075	.031	.008	.005	2.92
	(87.0)	(92.5)	(92.5)	(92.1)	(92.6)	(92.3)	(94.6)	(92.5)
All India	.116	.231	.170	.097	0.44	.015	.005	2.92
	(88.7)	(90.9)	(91.4)	(92.0)	(92.1)	(92.6)	(93.0)	(92.0)

Note: Figures in brackets refer to the percentage of pregnancies resulting in live births.

Source: NFHS, 1992-93.

Table 2. Age Specific Pregnancy Rates by Major States

States	Reproductive ages							Total
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
Andhra Pradesh	.164	.225	.108	.051	.021	.005	.000	2.87
Assam	.138	.224	.223	.122	.062	.023	.000	3.96
Bihar	.136	.259	.206	.150	.083	.028	.004	4.33
Gujarat	.100	.271	.171	.080	.022	.005	.004	3.27
Haryana	.166	.371	.220	.098	.040	.016	.003	4.57
Karnataka	.142	.225	.147	.069	.026	.006	.005	3.10
Kerala	.047	.181	.138	.061	.019	.007	.001	2.27
Madhya Pradesh	.168	.275	.202	.112	.050	.019	.010	4.18
Maharashtra	.151	.247	.142	.057	.013	.006	.000	3.08
Orissa	.091	.220	.178	.097	.033	.011	.000	3.15
Punjab	.075	.267	.197	.078	.023	.005	.002	3.24
Rajasthan	.129	.270	.198	.115	.059	.015	.011	3.99
Tamil Nadu	.117	.242	.156	.060	.022	.005	.000	3.01
Uttar Pradesh	.124	.308	.272	.193	.103	.040	.015	5.28
West Bengal	.141	.218	.149	.081	.033	.009	.005	3.18
All India	.133	.254	.186	.105	.048	.016	.005	3.74

Source: NFHS, 1992-93.

Thus, $ASPR_i = ASFR_i * (1/PLB_i)$

where, ASPRs are the age specific pregnancy rate for age group i, $ASFR_i$ is the age specific fertility rate and PLB_i is the proportion of live births to total pregnancies in the i-th age category.

Out of the number of women who are likely to be pregnant, only those women with pregnancies that were ill-timed and unwanted have the potential to be aborted and those proportions are given in Table 3. The number of women who run this risk of being potential abortees over the quinquenial age groups can be measured as the product of the ASPRs and the proportion of women having ill-timed and unwanted pregnancies

in that age category. The sum of these age specific potential induced abortion rates (ASPIAR) over the five year age groups multiplied by 5 gives the total potential induced abortion rate (TPIAR)[1]. The ASPIARs and the associated TPIARs for the fifteen major states are given in Table 4. This TPIAR can be explained in terms of average expected potential number of induced abortion per women under the given schedule of fertility and age pattern of ill-timed and unwanted pregnancies.

Table 3. Proportion of Ill-timed and Unwanted Births by Major States, India, NFHS, 1992-93.

States	Ill - timed	Unwanted
Andhra Pradesh	8.9	5.2
Assam	19.2	9.7
Bihar	14.2	9.3
Gujurat	5.7	2.5
Haryana	10.8	9.6
Karnataka	26.9	7.8
Kerala	16.8	2.4
Madhya Pradesh	8.7	7.4
Maharashtra	15.0	7.1
Orissa	17.3	9.4
Punjab	9.7	6.1
Rajasthan	6.0	7.6
Tamil Nadu	16.9	8.7
Uttar Pradesh	13.1	10.8
West Bengal	19.9	15.3
All India	13.8	8.8

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[1] The computation of TPIAR is similar to the computation of the TFR; but instead of the ASFRs used for TFR, we used ASPIARs.

$$ASPIAR_i = ASPR_i * PWIUP_i$$

where $ASPIAR_i$ is the age specific potential induced abortion rate for age group 'i', $ASPR_i$ is the age specific pregnancy rate and $PWIUP_i$ is the proportion of women having ill-timed or unwanted pregnancies in the age group 'i'. and hence,

$$TPIAR = 5 \sum_{i=1}^{7} ASPIAR_i$$

Table 4: Age Specific Induced Abortion Potential in India.

States	Reproductive ages							TPIAR
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
Andhra Pradesh	.017	.031	.019	.010	.009	--	--	0.43
Assam	.033	.059	.067	.043	.025	.013	--	1.20
Bihar	.016	.053	.052	.056	.032	.016	--	1.13
Gujurat	.008	.018	.016	.007	.004	--	--	0.27
Haryana	.022	.070	.056	.026	.014	--	--	0.94
Karnataka	.046	.075	.054	.026	.015	--	--	1.08
Kerala	.007	.035	.029	.011	.002	--	--	0.42
Madhya Pradesh	.015	.037	.041	.027	.018	.008	--	0.73
Maharashtra	.030	.058	.028	0.17	.003	--	--	0.88
Punjab	.008	.038	.037	.016	.006	--	--	0.53
Rajasthan	.010	.032	.031	.022	.015	.003	--	0.57
Tamil Nadu	.016	.063	.044	.022	.013	--	--	0.79
Uttar Pradesh	.017	.056	.070	.066	.045	.016	.007	1.39
West Bengal	.040	.069	.057	.040	.024	.007		1.22
All India	.024	.052	.050	.036	.022	.008	.002	0.97

Using these estimates of abortion potential per woman in reproductive ages, the potential for induced abortion per pregnancies were also computed, and the same is given in Table 6. These potential induced abortion rates indicate the potential per pregnancy in every age category over the reproductive ages.

In an attempt to find alternative means of obtaining information about induced abortions when reported data is inadequate, filter questions followed by more specific non-stigmatizing questions have been tried in the past to elicit data on induced abortions (Anderson et.al. 1994 and Huntington, Mensch and Toubia, 1993). The Huntington et.al. (1993) study used the 'unwanted status' of any previous pregnancy to dwell upon the issues of induced abortion. About 65 per cent of women who had an unwanted pregnancy, tried to obtain an induced abortion.

An evaluation of similar studies using Demographic Health Survey (DHS) data on induced abortion using alternative questions to obtain information from the DHS concluded that abortions are more likely to be reported in studies of MCH-FP clients, or in studies that take place in settings where abortion is legal. In systems with high reported levels of unwanted pregnancy, there were also higher reported levels of abortions. If the questions about unwanted pregnancies did not generate responses, then induced abortions remained unreported (Huntington, Mensch and Miller, 1996). Given this, it is expected that a majority of women saying that they had an unwanted pregnancy are likely to seek an induced abortion in regimes that are not restrictive. Medical Termination of Pregnancies (MTPs) have been theoretically available to Indian women since 1972 and quite a few women are aware of it. It can be therefore said that the percentage of unwanted or ill-timed pregnancies would be indicative of the potential for induced abortions.

We have made an attempt to obtain the number of induced abortions in each state, using the ASPIARs and the projected female population in the reproductive ages. The age-sex specific data on India's population for the 1991 census is not available and hence projected figures for the number of females in the reproductive ages (15-49) were used to estimate the potential for induced abortions in 1992-93[2]. This is obtained for each state as the sum of the product of the projected female population and the ASPIAR for each age category.

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[2] It should be remembered that this is just an exercise to indicate the possible number of induced abortions. We do not lay claim to any degree of accuracy or even compatibility as we have used the projected figures for 1991 along with the NFHS data, whose reference period is 1992-93.

The potential abortion in a particular year say 't' will be;

$$A_t = ASPIAR_{it} * W_{it} \quad where$$

ASPIART = Age specific potential induced abortion rate for i-th age group in the year t and Wit is the number of women in i-th age group in year 't'.

The Huntington et.al. (1996) study found that when the reported levels of unwanted pregnancies were high, and the atmosphere vis-a-vis induced abortions restrictive, as it is in Egypt, Ghana and Cote d'Ivoire where 25, 55 and 65 per cent of the women respectively who reported unwanted pregnancies attempted an abortion.

In India, abortions have been legally available since 1972. It can be safely assumed that except for some segments of the population the atmosphere vis-a-vis abortion is not too restrictive. It can therefore be conservatively assumed that at least a third of those women who had an unwanted/ill-timed pregnancy in India, would attempt an abortion based on the observation made by Huntington et.al. (1996) . Even at the modest level of conversion of unwanted pregnancies to induced abortions, the estimated number of abortions far exceed the reported number (See Table 7).

Discussion

The number of births reported as ill-timed and unwanted have been used to compute potential abortion rates by age for the fifteen major states. Usually there is a reluctance on the part of the women to report a birth that has already occurred as unwanted. Therefore, the percentage of such births stated as ill-timed and unwanted are likely to be underestimates and the rates for potential abortion will also be affected accordingly. The distribution of ill-timed and unwanted births over age

of women indicates that unwanted births occur mostly for women above 30 years of age and ill timed births are concentrated more among younger women (IIPS, 1995). With advancing age women will achieve their desired family size and composition, while younger women are expected to have ill-timed pregnancies. This is in keeping with the age characteristics of couples with unmet need for contraception. As can be seen from Table 2, the proportion of ill-timed births ranges between 5.7 per cent in Gujarat to 26.9 per cent in Karnataka, while the proportions of unwanted births are much lower ranging between 2.4 in Kerala to 15.3 in West Bengal. Further, as the total demand for family planning in the spacing category remains largely unmet, it is likely that this unmet demand for spacing would result in potential candidates for induced abortion.

The total potential for abortion was the highest in Uttar Pradesh and the least in Gujarat. The peak ages in abortion potential is achieved at the same time as the peak in ASFR, i.e., in 20-24 age group in 10 out of 14 major states. For Assam, Bihar, Madhya Pradesh, Orissa and Uttar Pradesh this peak is achieved in the age group 25-29. It can be seen that this potential abortion rate is a reflection of the fertility levels and the level of unmet demand for spacing and limiting services. The rate is high in states like Uttar Pradesh which have the combination of high level of fertility and high level of unmet demand for family planning and is low in states like Andhra Pradesh, Punjab, Gujarat and Kerala which represent a combination of relatively lower fertility levels and lower levels of unmet demand especially for limiting services (See Table 5). It can also be seen that the potential abortion rate is high in states like West Bengal where the met demand for spacing is relatively high and the fertility level is also relatively high. Thus, it can be said that the TPIAR depends extensively on the unmet demand for limiting, clearly

indicating that the potential for abortion is high when the demand for limiting services remains largely unmet. This is further confirmed by obtaining correlations between the TPIAR and the percentage of couples satisfied with spacing and limiting services, which was -0.0477 and 0.6833 (P = 0.866 and 0.005) respectively.

Table 5. Total Pregnancy Rate, Total Fertility Rate, Percentage of need for Family   planning satisfied and the TPIAR by States

States	TFR	TPR	% of need	satisfied	TPIAR
			Spacing	Limiting	
Andhra Pradesh	2.67	2.87	12.5	91.7	0.43
Assam	3.68	3.96	44.1	76.2	1.20
Bihar	4.00	4.33	11.6	66.4	1.13
Gujarat	2.99	3.27	25.5	89.5	0.27
Haryana	3.99	4.57	33.3	85.6	0.94
Karnataka	2.85	3.10	16.3	88.0	1.08
Kerala	2.00	2.27	47.5	92.6	0.42
Madhya Pradesh	3.90	4.18	13.2	82.4	0.73
Maharashtra	2.86	3.08	29.8	88.2	0.68
Orissa	2.92	3.15	10.5	78.2	0.88
Punjab	2.92	3.24	45.8	89.1	0.53
Rajasthan	3.43	3.99	12.9	77.0	0.57
Tamil Nadu	2.48	3.01	29.7	87.4	0.79
Uttar Pradesh	4.82	5.28	10.8	57.1	1.39
West Bengal	2.92	3.18	52.0	85.5	1.22
All India	3.39	3.74	23.6	81.4	0.97

While, the probability of a pregnancy having the potential for induced abortion is relatively high in three diverse states of West Bengal, Assam and Karnataka and the least in Rajasthan and Gujarat, this probability increases with age for all the states except for Kerala and Maharashtra where it assumes an inverted V-shape. In spite of the fact that there is a larger percentage of couples with unmet need for spacing

Table 6. Induced Abortion Potential per Pregnancy by Age of Women

States	Reproductive Ages							
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	PIAP
Andhra Pradesh	.1037	.1378	.1759	.1961	.4268	--	--	0.15
Assam	.2391	.2634	.3004	.3524	.4032	.5652	--	0.30
Bihar	.1176	.2046	.2524	.3733	.3855	.5714	--	0.26
Gujurat	.0800	.0664	.0936	.0875	.1818	--	--	0.08
Haryana	.1325	.1887	.2545	.2653	.3500	--	--	0.21
Karnataka	.3239	.3333	.3673	.3768	.5769	--	--	0.35
Kerala	.1489	.1934	.2101	.1803	.1053	--	--	0.19
Madhya Pradesh	.0893	.1345	.2030	.2411	.3600	.4211	--	0.17
Maharashtra	.1987	.2348	.1972	.2982	.2308	--	--	0.22
Orissa	.1648	.2318	.3146	.3711	.5455	--	--	0.28
Punjab	.1067	.1423	.1878	.2051	.2609	--	--	0.16
Rajasthan	.0775	.1185	.1566	.1913	.2542	.2000	--	0.14
Tamil Nadu	.1368	.2603	.2821	.3667	.5909	--	--	0.26
Uttar Pradesh	.1371	.1818	.2574	.3420	.4369	.4000	.4667	0.26
West Bengal	.2837	.3165	.3826	.4938	.7273	.5000		0.38
All India	.1702	.2047	.2688	.3429	.4583	.5000	.4000	0.26

Note: PIAP denotes Potential Induced abortion per pregnancy which is obtained by dividing TPIAR by TPR.

Table 7. Differential Assessment of Induced Abortion Potential.

States	Possible induced abortions	Potential no.of induced abortions projected 1991	No.of abortions as per (NFHS)	No. of MTPs Govt. record
Andhra Pradesh	79435	240712	13598	13357
Bihar	164998	499995	8794	10383
Gujarat	31411	95186	9541	15846
Haryana	41956	127140	9543	20073
Karnataka	142658	432296	12521	12889
Kerala	39026	118262	10123	36727
Madhya Pradesh	116146	351957	13281	32262
Maharashtra	168908	511841	23209	126983
Orissa	75094	227558	7725	21583
Punjab	29470	89302	9504	15436
Rajasthan	60834	184344	15285	26778
Tamil Nadu	126613	383676	64497	49859
Uttar Pradesh	405004	1227285	48826	120995
West Bengal	226153	685312	17076	55673
All India	2071524	6277346	333413	631141

Source : No. of MTPs Govt. record - Govt. of India, 1994.

than limiting, the TPIARs and the potential for induced abortion per pregnancy are heavily influenced by the percentage of couples whose need for limiting services have been met. There is a clear negative relationship between these indicating that the potential for induced abortion are higher if the percentage of couples whose need for limiting services being met is low. The correlations are weaker when the potential for induced abortion per pregnancy is used ($r = -0.2561$, $p = 0.357$) instead of TPIAR ($r = -0.6833$, $p = 0.005$) . This observation ascertains that even if adjustments are made on the levels of fertility across states, the negative relationship between the potential need for induced abortions and the unmet need for limiting still remains.

In terms of the induced abortion potential per pregnancy, it is found that potential for induced abortion is highest in West Bengal followed by Karnataka and Assam and that Uttar Pradesh shifted lower in the ranks - perhaps its earlier higher rank when the TPIAR per woman was considered was a reflection of the higher fertility in Uttar Pradesh (See Table 6). The potential for induced abortion is expected to decline with improved access to limiting services and overall improvement in the quality of family planning services for spacing as well. This is in keeping with the present agenda of Family Welfare Programme in India which is shifting from a target oriented approach to a responsive felt needs- RCH-Reproductive and Child Health Approach.

In the states of Kerala and Maharashtra, one finds that the estimates of induced abortions almost match the reported ones. In Gujarat, Haryana and Punjab, the estimated rate of induced abortions is twice that of the reported, while in Rajasthan and Tamil Nadu, it is slightly over two times the reported ones. In other states, the estimated number of abortions is more than twice of that reported in the Family Welfare Year Book (Govt of India, 1994)- some times as much as ten times the

reported number. This is clearly indicative of two problems - the reported number of induced abortions (MTPs) as per Govt. sources are definite underestimates. Secondly, the existing abortion facilities are not sufficient to meet the potential needs for induced abortion which is several times higher than the reported ones. It also suggests that there is a high volume of unwanted pregnancies- either due to lack of use of contraception or due to failure of the contraceptive used. All this points towards the inadequacy of existing family planning and birth preventing facilities, in terms of quality or quantity or perhaps both.

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