

Female sterilization in India: A comparison of static and mobile services delivery

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Extended Abstract

Background:

Sterilization is the most popular method of contraception in India. As the demand for sterilization services remains very high with a large unmet need, the country has continued with the camp mode (mobile clinic) to reach the people in under-served and under-reached areas. However, the camp approach throws out challenges in terms of quality in service (MoHFW, 2008). The 2005-06 National Family Health Survey found that female sterilization with a prevalence of 37% accounts for 66 % of all contraceptive use (IIPS & Macro International, 2007). Although the Family Welfare Programme has begun to give higher priority to spacing methods than to permanent methods, sterilization is expected to remain the most popular method for the foreseeable future. Unfortunately, the government of India has paid little attention to the quality of sterilization services, and has tended instead to emphasize achieving targeted numbers of cases. A great deal of research has been conducted in India, but few studies have focused on the quality of care in family planning, particularly, the quality of sterilization services (Shariff and Visaria 1991; Verma et., al., 1994). The paper compares the types of service delivery for female sterilization in India by their socio-economic characteristics and by the awareness of alternative contraceptive methods.

Data:

For the present study data from the third round of the District level Household Survey-III, conducted in the year 2007-08, has been used. The District Level Household and Facility Survey is one of the largest ever demographic and health surveys carried out in India, with a sample of about seven lakh households covering all districts of the country. The Ministry of Health and Family Welfare (MoHFW), Government of India, initiated District Level Household and Facility Survey (DLHS) in 1997 to provide district level estimates on health indicators to assist policy makers and program administrators in decentralized planning, monitoring and evaluation. DLHS-III is designed to provide estimates on maternal and child health, family planning and other reproductive health services. In this survey, 1,156,932 ever married women in the age group 15-49 were interviewed. The ever-married women's questionnaire contained information on women's characteristics, maternal care, immunization and childcare, contraception and fertility preferences, reproductive health including knowledge about HIV/AIDS. According to the data, out of 1,156,932 ever married women aged 15-49 interviewed in India, 35.8 percent women opted for female sterilization.

Methodology:

In India, there are two broad categories of delivery of sterilization services namely, public and private. It is imperative here to mention that we have considered only the public facilities for this study because in India the share of public service delivery is manifold compared to private service delivery

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(Figure 1). For the analysis, we define permanent or static facilities as hospital which is public hospitals, dispensary, Community Health Centre (CHC), Public Health Centre (PHC), rural hospitals and other public sector health facilities. The term “camp” is used to encompass seasonal and mobile outreach service delivery sites where sterilization services are provided for a fixed period of time rather than on a routine basis. Similarly, the mobile clinic services are delivered to remote areas of the country. Therefore, in the study we merged these two services, that is, “camp” and “mobile clinic”, and considered as the “mobile service facilities” for sterilization. Thus, the static clinic and the mobile clinic form the dependent variable for the analysis. The service deliveries setting as defined in this analysis (static vs. mobile) were as they were reported by the sterilized clients. Though the quality of services include many components, we could examine only the client’s awareness of family planning methods other than the method they accepted as our analysis is based on secondary survey data. Both bivariate and multivariate methods have been used for the analysis. In the binary logistic regression, women who received services from a mobile facility (i.e. camp) were coded as zero and those who received services from a static facility were coded as one. The predictor variables used are caste, religion, place of residence, educational attainment, wealth quintile, age at sterilization etc.

Preliminary findings:

The public sector is the major service provider of sterilization in India. In the public service provider, static facilities have become a major source of India’s family planning programmes for both males as well as females with respect to the mobile facility. About 81% males and 73% females receive sterilization services from static facilities compared to 11% males and 12% female who received sterilization from mobile facilities (Figure:1).

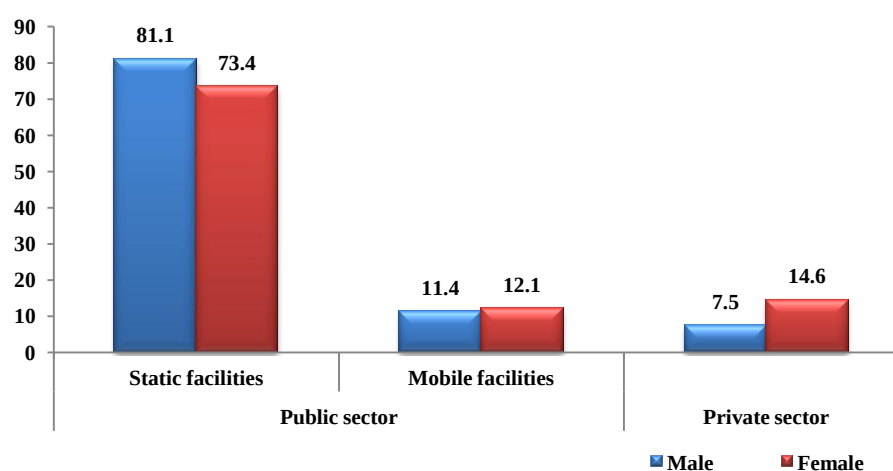


Figure 1: Percent distribution of sterilized clients by type of service delivery, according to sex, India 2007-08.

The percent distribution of mobile and static service delivery systems with respect to several backgrounds characterises indicates that Hindus are by far the most served population by both services (Table 1). The distribution of female sterilization through mobile facility in rural and urban areas is much skewed in favour of rural areas, which is 81% and 18 % for rural and urban areas respectively. This indicates that majority of camps were placed in the unserved or underserved rural areas. But, in case of female sterilization through static facility the percent distribution is 70% and 30% for both rural and urban areas respectively. The table also indicates that most of the female sterilization takes place in rural areas. It is also important here to mention that the mobile service delivery system has served the females with secondary education (70%) and females with primary education (22%). On the contrary, only 7% women with higher education is served by the mobile clinics. This may be because of the fact that in rural areas women are mainly primary to secondary educated and highly educated women opt for spacing methods of contraception. The largest

percentages of clients were aged in the age group 25-29, in both service delivery settings. However mobile facilities had proportionately more women aged 25-29 than fewer aged women in the age group 30-34.

Table 1: Percent distribution of sterilized women, by socio-economic characteristics, according to service delivery, India, 2007-08.

Background characteristics	Mobile Facilities	Static Facilities
Religion		
Hindu	93.6	83.9
Muslim	3.3	6.2
Other	3.1	9.8
Caste		
SC	18.9	20.4
ST	16.3	15.2
Other	64.8	64.5
Place of residence		
Rural	81.8	69.6
Urban	18.2	30.4
Education		
No education	0.5	0.3
Primary	22.0	18.8
Secondary	70.7	70.0
Higher	6.8	10.9
Wealth quintile		
Poorest	18.6	11.6
Poorer	23.3	16.1
Middle	23.4	22.5
Richer	21.1	25.9
Richest	13.5	23.9
Age at sterilization		
<20	4.3	5.8
20-24	27.9	31.9
25-29	38.8	37.0
30-34	20.7	22.3
35+	8.4	2.9

In the DLHS III, the sterilised women were asked about their knowledge about various contraceptive methods. Form the Table 2 it is clear that even though the women are sterilised but, they have fare knowledge of different contraceptive use. It is striking to note that irrespective of the type of the service delivery use (88% and 83% for static and mobile service delivery respectively), sterilised women are aware about vasectomy. This may be a reflection of low status of females in the society. Female condom is the least known method of contraception followed by emergency contraception methods. Moreover, the percentage of women who were aware of each of the methods did not differ significantly between the two groups of clients.

Table 2: Percentage of sterilized women who were aware of various contraceptive methods, by type of service delivery in India and DLHS-3, 2007-08.

Method	Static Facilities	Mobile Facilities
Vasectomy	88.3	83.4
IUD	66.3	73.9
Pill	84.8	82.6
Emergency contraception	25.1	30.1
Injectables	50.1	47.7
Condom	72.4	69.9
Female condom	7.1	11.3

The logistic regression analysis reconfirms the bi-variate findings that women residing in the urban areas are less likely to opt for sterilization compared to their rural counterparts. Alternatively, the probability of receiving services from a mobile facility as opposed to a static facility in urban areas shows significant independent effect ($p < 0.01$) (0.546; CI: 0.527-0.566). Clients having higher education are 0.71 times less likely to get their sterilization done in static facilities compared to mobile facility. Differences in age distribution at the time of sterilization between the two groups were not significant.

Conclusion: The present study concludes that about 80 percent of vasectomies and 73 percent female sterilizations take place in static health services, whereas 12 percent of vasectomies and female sterilization in India takes place in mobile health services commonly referred to as camps. The camp has been an important modality for sterilization service delivery, particularly for women in rural areas in the country. The use of contraceptive methods for spacing births has been steadily increasing in India. Along with a gradual use in spacing methods, however, it is also likely that reliance on sterilization will increase. The continuing role of sterilization should be considered in the context of the country's childbearing patterns. There are advantages and limitations of both these service delivery systems. Mobile facility is an endeavour to reach out for the clients. That is why it is successful in India.

But, in case of the static facility, clients have to reach out for the service. The success of the mobile facility may also be attributed to the fact that the camps are administered at those places where the prevalence of the contraceptive use is comparatively low. In the near future, the proportion of women wanting to stop childbearing is to increase rapidly. In this context contraceptive sterilization offers an easy, safe and effective means to implement this desire, at least among them who are aware of sterilization and have access to service. Unless the use of spacing methods rises significantly among women with no births or few births, sterilization most likely will continue to remain the backbone of India's family planning programme. In view of the above discussion it is clear that sterilization is an effective tool of contraception in India, and targeted intervention through mobile clinics is a useful to reduce the unmet need for contraception. This does not mean that the static clinics are not important rather it is equally important and both these facilities should work complementing each other.

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