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Demand and Supply Aspects of Institutional Deliveries in Rural Madhya Pradesh

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Abstract:
Madhya Pradesh has been able to improve its demand aspects of institutional delivery during the period of 1998 to 2006. The socio-economic contexts of the woman were observed in rural Madhya Pradesh differences are expected to reflect in the utilization of health care services. The analysis has indicated the extent of influence of these factors in each of the study Madhya Pradesh. The supply aspect of institutional delivery indicates that the availability of gross-root rural health infrastructure in the public sector fulfils by and large the prescribed population norms. The high level of vacancies of and non-availability of obstetrician-gynecologists in CHCs and FRUs and medicines may be a major limiting factor in greater use of public sector for institutional delivery. The physical accessibility to private clinics, there is predominance, even with a much low density of the population. Greater proportion of women who lived in villages which was assessed as having High quality perception of health services,

Keywords: *Institutional delivery, demand aspects, supply aspects, utilisation, NFHS.*

1. Introduction

India is among those countries in which maternal mortality rate is rated as unacceptably high. Out of every five women who die of causes related to pregnancy and childbirth, one is an Indian. The country accounts for nearly 1, 36,000 maternal deaths in a year – a little over 26% of the world's total (WHO, 2000). Within India itself, Kerala has the lowest maternal mortality ratio (37), other major states like Madhya Pradesh (605) reporting very high levels (NFHS, IIPS, 1998-99).

The death of a woman in the reproductive age group is a traumatic experience for the surviving children. Studies have shown that less than 10% of infants who survive the death of the mother live beyond the first year. While improvement in the general health and nutritional status of women may be associated with long-term socio-economic development and equitable distribution of resources, a large number of maternal and perinatal infant deaths could be prevented if good ante natal care and skilled assistance during childbirth are available to the mother (Tinker et al, 1993b).

Aspects of utilization of maternal health care services (antenatal, delivery and postnatal) in Madhya Pradesh, the risk of death associated with complications of pregnancy has a major influence on maternal mortality and life time risk of a maternal death Acharya et. al (2000), Mekonnen et. al (2002), Chaurasia (2006) and Verma et. al (2008).

1.1. Demand aspects

Demand aspects (availability of maternal health care services) refer to the behavior and inputs of the recipients efforts: individuals, households and communities. The demand for institutional deliveries are influenced by factors such as education, work status, women's involvement in decision-making, media exposure, economic capacity, religion, caste and ante-natal care. Except ante-natal care, all other factors could broadly come in the category of socio-economic factors. Third chapter presents the situation of rural Madhya Pradesh in respect of these socio-economic factors.

Madhya Pradesh is recognized as one of the developing States of the India. It has a population of 60.3 million according to 2001 census. The demographic picture of the State has always been on the wrong side of the national average. In 2005-06 it had a birth rate of 31 as against the country birth rate of 24.8, still about five points higher than the national average, but modestly lowers in Madhya Pradesh birth rate. The rate of decline in birth rate continues to be slow. The death rate of the State is also much higher than the country nearly one percent. During the same period the infant mortality was 86 higher than the twenty per infant death of the country. In comparison, the reduction in IMR has been much steeper in Madhya Pradesh. In the critical area of maternal mortality, estimates

show a high prevalence 379 maternal deaths per lakh's live births against the country's estimated 301. However, in Madhya Pradesh have much higher maternal mortality ratios (DFW, 2004-05, CSO. 2004, MOF, 2004-05c).

Nearly five per cent of its population belongs to the socially disadvantaged groups of Schedule Caste and Schedule Tribe against the national average of 24 per cent. It has highly adverse sex ratio-only 910 females per thousand males. The State has one of the lowest densities in population only 195 persons per square kilometer against 312 in the country as a whole (CSO, 2004g).

In the area of literacy, the State is one of the backward. The overall literacy according to 2001 census was only - 64 per cent against the country average of 65 per cent. The picture in female literacy in the State has the lower female literacy in the country – 50 percent. The national average is more than the four percent of this level in Census 2001.

The per capita income of the State was only Rs.14534 in 2004-05 (Net State Domestic Product at current prices), lower than that of national Rs.22946.The proportion of people living below the poverty line was 38 percent in 2004-05 as against 28 percent of the country. It would be therefore appearing that economically it is better placed of Madhya Pradesh, where the proportion of living below poverty line is nearly high (DFW, 2004-05, CSO. 2004, MOF, 2004-05c).

The multitude of schemes available to pregnant woman and the failure of the government to communicate them clearly has cause intense confusion and resulted in widespread underutilization of the scheme. Women do not know the eligibility criteria, benefits and implementing agency for the scheme. This confusion has helped foster a climate of unaccountability in implementation. Although JSY encourages women to have their delivery in public health institutions, these institutions are rarely capable of providing safe and competent care. During the study it has been found that the women get debarred from the benefit of the scheme if she had home delivery and have more than 2 children Tripathi et. al.(2013).

Delivery in a health institution is usually proceeded by antenatal care consisting of medical checkup, immunization against tetanus and prophylaxis against anaemia. Institutional delivery ensures that the pregnant woman is assisted by a health professional, most of the times by a qualified doctor, who can attend the complicated delivery cases or arrange for appropriate referrals. Thus it reduces the risk of both maternal and infant mortality. The result of a three-year study in rural India has shown that delay in seeking medical care and too many and inappropriate referrals significantly increased the risk of maternal deaths Sugathan et. al (2001).

1.2. Supply Aspects

The supply of institutional deliveries in the context of the availability of health facility, physical accessibility of the health facility and the quality of health care service represent the supply aspects. Despite these clear benefits associated with institutional delivery, it is not actively promoted for achieving the objective of bringing down maternal mortality or for promoting family planning in many developing country programmes; probably on account of the belief it is a long term goal which needs massive resources for improving the health system environment.

The government programme strategy in the population sector has always given high priority to development of health infrastructure. The programme began with the setting up of a number of family planning clinics, which provided basic information on prevention of pregnancies. During the First Five Year Plan (1951-56) 126, urban and 21 rural clinics were established under the State Government, local bodies and voluntary organizations (Gupta, et al, Vol. I, 1992a)

In the context of the Alma Ata Declaration which placed greater emphasis on the development of the primary health system, the Sixth Five Year (1980-85) envisaged liberalized norms for establishing primary health centres and sub-centres. The programme of expansion was undertaken as part of the Minimum Needs Programme. It was stipulated that there should be a sub-centre for a population of 5000 (3000 in hilly areas) and a primary health centre for a population of 30,000 (20,000 in hilly areas) and a Community Health Centre for a population of about 1 lakh (DFW, 1984-85).

The state government is the single largest health provider in Madhya Pradesh, especially when it comes to preventive care and public health issues. However, the direct role of government service providers is on a decline and a majority of people resort to private health providers, especially in rural areas for medical treatment. Madhya Pradesh Economic Survey for 2007-08 states that there is a huge gap in the need and availability of health institutions in the state. It mentions that Government of India is still following the 1991 census indicators and because of that, the state is facing the lack of sub-health centres and primary health centres. Though the state has adopted an innovative approach of mobile health dispensaries through public private partnership and other health schemes, its impact on primary health has not been evaluated so far.

We may now look at the availability of District Hospitals in the Madhya Pradesh and India. This information is available for public sectors from statistics published by Department of Family Welfare. District hospitals are important source of institutional deliveries since Obstetrics & Gynecologists and facilities for childbirth are generally available in the hospitals. Though most of the hospitals are located in urban areas, they cater to the rural population also.

The role of an inadequate health care system in preventing a woman with a complication in pregnancy or during delivery from seeking medical help and in providing a woman who reaches a medical facility with appropriate care. There could be problems in the hospital due to the absence of specialist doctors, absence or non-functioning of essential equipments, lack of blood transfusion facilities, etc. Such a situation is particularly relevant in Indian conditions where the possibility of the gynaecologist in a CHC being on leave, on training or attending a meeting at the district headquarters exist. The author calls for a drastic re-allocation of resources in favour of the health sector, particularly for women's health Sundari (1992).

The tribal villagers also did not seek help of government hospital when faced with complications during delivery and they relied mostly on local dai to handle the complications. The Muslim dominated village still preferred home delivery though a 30-beds health facility with doctors on duty 24-hours a day is located next door. The developed village which also has Block Primary Health Centre within 2 kilometers prefers mostly private health facilities. Public sector health facility is established and maintained did not perceive

the need for hospital delivery, while better off sections perceived the necessity of hospital delivery did not need the public sector facility Mridula Bandyopadhyay and Stewart MacPherson (1998).

Greater availability of obstetric services will not alone solve the problem of low institutional delivery rates. This is particularly true for the use of private-for-profit institutions, in which the distance to services does not have a significant adjusted effect. In the light of these findings a focus on increasing demand for existing services seems the most rational action. In particular, financial constraints need to be addressed, and results support current trials of demand side financing in India Kesterton et. al. (2010).

2. Materials & Methods

2.1. Materials

This study will be based on secondary data taken from the National Family Health Survey 2005-06 and 1998-99. In NFHS information were collected from ever married rural women births during five years prior to the survey of Madhya Pradesh. In NFHS (1998-99) the sample size was 4345 where as in NFHS (2005-06), it was 3053.

2.2. Methodology

- Demand aspects (availability of care services) refer to the behavior and inputs of the recipients efforts: individuals, households and communities. The demand for maternal health care services are influenced by factors such as education, work status, women's involvement in decision-making, media exposure, economic capacity, religion, caste and ante-natal care. Except ante-natal care, all other factors could broadly come in the category of socio-economic factors.
- Supply aspects refer to the service delivery inputs such as human resources and supplies provided on the basis of formal sectoral planning. Availability of health facility, physical accessibility of the health facility and the quality of health care service represent the supply aspects.

The process of demand-generation is supported by factors such as age, birth order, economic capacity and women's involvement in decision making. The availability and accessibility of health facilities make it possible for the woman and family to fulfill the demand aspects for using such facilities. These supply aspects can also indirectly create demand. But for the purpose of the analysis they are considered as supply-aspects.

The basic variable considered is delivery in a health facility. It is the dependent variable. If a woman has given birth in a health facility (either a public sector medical institution or a private sector medical institution), it is considered as delivery in a health facility. The independent variables that are considered in the study represent the demand-aspects and supply-aspects factors. Socio-economic status of reproductive age-group women, availability/accessibility of health care facilities and quality of health care services, would be analyzed using frequency, cross tabs and descriptive statistics.

3. Results & Discussion

3.1. Demand Aspects of Institutional Delivery

The socio-economic context of rural respondents presents a slightly different picture compared to the overall State situation. The rural context is of greater relevance for the present study as the net effect of individual factors will be examined for the rural areas only.

It is perceived that older women are likely to be less educated, less knowledgeable about advantages of modern health care, but not necessarily less well-off economically. It is reasonable to assume, from the point of view of childbirth, that women aged 30 and above fall into the category of older women. It will be seen from the Table-1 that the highest proportion of institutional delivery in the age-group of 20-24 during the five years preceding the survey of 1998-99 and 2005-06 in the rural areas of Madhya Pradesh. There is one expected lines since most of the first order births take place in the age group 20-24 and first order births as we will see in the next table accounts for a much larger proportion of institutional delivered and the lowest proportion of institutional delivery in the age group of 30-49. The institutional delivery differential between the age group of 25-29 and 30-49 has increased gradually during the period between 1998-99 and 2005-06. An increase in the utilisation differential in favour of the younger age group may indicate that socio-economic factors or supply environment or both have brought about changes in the behavioral pattern of younger women who could be more receptive to change. Rural women are more likely to receive antenatal care even though availability and accessibility of health care services are usually low compared to urban areas. "It affects the demand side financing for reproductive and child health services in India Bhatia et. al (1995 & 2006)".

This is observed in the study of Madhya Pradesh and for both points of time. It is perceived that women who have higher order births are likely to be less educated and economically poorer. Hence the lower proportion of institutional delivery among them is on expected lines. However it is likely that such women (who have higher order births) may be younger in age (compared to the better educated women who had a lower parity) because of the low age at marriage among less educated and socially disadvantaged groups.

The proportions of births to rural women belonging to different religious groups nearly more than ninety six percent or more births were to women who belonged to the Hindu religion in both two surveys in the present study. It is only about two percent, with Muslims are contributing in the State. In comparison to the two surveys as a whole only about one percent others proportions in rural areas in Madhya Pradesh is much lower difference during three years prior to the survey of 1998-99 and 2005-06.

Schedule castes/tribes in the rural areas the proportion of births to schedule castes/tribes women is much higher than the actual ratio of the schedule caste/tribe population in 2001 census referred from table. As per 2001 census, the proportions of schedule castes/tribes in

Madhya Pradesh were about 3 percent. One reason for the higher proportion of schedule castes/tribes among the respondents is that most of them live in the rural areas.

The demand side likelihood of utilizing public health facilities decreases sharply with education as well as affordability of households. It seems that public health care, in Indian context, is an inferior commodity. Moreover, acceptability of it is concentrated among some ethnic minorities who generally occupy lower stratum in the local hierarchy, and also to mothers with higher order births. "Among the factors in the supply side, availability of plants and equipments contributes negatively towards utilisation of public health facilities for most of the cases. In the urban areas, where both public and private facilities are easily available, people are likely to avoid public health facilities. Availability of drugs works positively and very strongly towards utilisation of public health care. However, quality of care goes in favour of private health facilities Majumdar (2006)".

The mother's educations in rural Madhya Pradesh literacy have improved near about 20 percent. Compared to the education level of the respondents in the Madhya Pradesh, the extent of illiteracy is higher in the rural areas. Compared to the position revealed in the survey there appears to be considerable improvement in the educational status of women in Madhya Pradesh. The proportions of births to women with less than middle school education increased from 3.7 % to 20.3 %, and women with above middle school education have little much increased 2.6 % to 3.2 % during the same period.

Women have an exposure to media and those who did not in the rural areas of Madhya Pradesh. It is quite likely that all those who merely watch a community/neighbour's television set once a week for the Sunday evening movie and do not get any specific input on health care can get included along with those who regularly watch television, read newspapers & magazines and regularly read/see messages or programmes related to health care. This is a limitation of the available data. Though the second survey had collected information on newspaper reading have increased 4 % of women in 2005-06 as compared to 1998-99 births during three years prior to the survey. Even with this limitation there is substantial difference seen both the survey in the use by those who are exposed to media and those who are not. The extent to which the difference in use-levels can be attributed to media exposure.

The situation regarding mother's working status- whether mothers were working outside their home. For the State as a whole we saw that the proportion of mothers working besides the home from about 62 % in 1998-99 and 64.7 % in 2005-06 during three years prior to the survey. It will be seen that near about two percent have increased proportion of women are working outside home in the rural areas.

The extent decision-making authority vested in mothers. It is interesting to note there is much difference in the women involvement indecisions about her health care between rural areas and the State as a whole. Just as in the rural areas, 5 percent of women increased in 2005-06 as compared to 1998-99 during three years prior to the survey. Not involvements in decision-making have declined in 25 % of women in the rural Madhya Pradesh due the literacy, exposure to mass media and awareness about the autonomy in the rural women.

Table shows that the break-up of births by economic status of the mothers according to the standard of living index. It will be seen from this table that the proportion of births to women in the low category of standard of living is higher in rural areas of Madhya Pradesh in 2005-06 survey as compared to the State as a whole. But the difference is much higher in the medium and high standard of living.

Compared to the position revealed in the survey of 2005-06, there is significant decline in the proportion of medium standard of living index from 36.3 percent in 1998-99 to 13.3 in 2005-06 due to the difference of selection of sample size during three years prior to the survey. In the rural areas of Madhya Pradesh the changes the position are in high standard of living up to 10 % is more or less stagnant.

3.2. Supply Aspects of Institutional Delivery

The overall availability of health facilities which are expected to provide institutional delivery care services in the Madhya Pradesh, we now move on to the accessibility of such facilities to the mothers who gave birth during three years prior to the survey of 1998 -99 to 2005-06. This information will give an idea about the physical accessibility of institutional delivery care services. Ramakrishna et. al (2000), Olsen et. al (2005)

The increase in the case load for immunization would need to be managed by HSCs and PHCs. PHCs are currently not equipped to manage this increase demand. The numbers suggest that each HSCs has been covering 100 children annually (assuming all cases are managed/vaccinated by them, as the share of the private sector is small and focused in urban areas), which is likely to increase to 200 children by 2015. Given the current level of preparedness of health facilities, the increased case load may be too much to handle, considering their other responsibilities Ram et. al. (2010).

The availability of a health facility is one of the most of the important enabling factors which makes it possible for the women and the family who has perceived the need for seeking maternal health care to actually utilise them. In the present study an attempt is made to present the physical accessibility of different types of institutional delivery care services and highlight the extent of the differentials in use between those who have a better physical access and those who did not have a convenient access. The information presented in this chapter is computed from the answers to the women questionnaire used in the survey of 1998-99 and 2005-06 (IIPS, 1999 & 2006).

The women questionnaire has collected information on the presence of health facilities such as Sub-Health Centre, Primary Health Centre, Community Health Centre/Rural Hospital, Government Dispensary, Government Hospital, Private Clinic and Private Hospital in and around the village and the actual distance in kilometers to such facilities. In addition, the survey has also obtained information about the presence of an all weather road in or near the village. By linking this village level information to the individual respondents within the village, the frequency tables showing the availability of certain health facilities within the village or within a distance of 5

kilometers has been constructed and presented in the following paragraphs. The facilities that are listed here are the principal sources providing ante-natal care or institutional deliveries in both public and private health facilities in the rural areas of the Madhya Pradesh.
Madhya Pradesh is one of the poor performers with respect to health indicators such as maternal mortality, infant mortality, child health etc. amongst all the states of the country. The number of institutional deliveries have started showing a better picture although there has been decline in the domiciliary but there is increase the percentage of TBA's and untrained birth attendants with the launching of JSY, but still the state is facing alarming MMR and IMR along with malnutrition problems.
JSY was created to pursue a worthy goal – the safe delivery of babies, it does not emphasis are not receiving correct amount in JSY. State will have to devote more resources to promote basic health facilities at affordable price to rural population. The government is trying to develop all the public health institutions as per Indian Public Health Standards. However, non-availability of doctors and specialists at PHCs, CHCs and hospitals in small towns is making the risk difficult Paul and Maroo (2014).
Table 2 presents the physical accessibility to a government hospital and dispensary available to women who had childbirth during the three year prior to the survey of 1998-99 and 2005-06. It will be seen that the physical accessibility to a government hospital and dispensary is the highest in 1998-99 as compared to 2005-06, because it's one of the reason behind that up to 2005-06 period women move to private hospital and clinic in Madhya Pradesh.
Table also shows that the availability of a Primary Health Centre and Community Health Centre within the village and up to a distance of five kilometers in the study. According to the population norms adopted by the Government for establishment of Primary Health Centres (PHCs), there should be a PHC for a population of 30,000 (20,000 in the case of hilly and tribal areas). The Community Health Centres are envisaged for a population of 1 to 1.2 lakhs (80,000 for hilly and tribal areas). In Madhya Pradesh 2005-06 higher percent of births occurred to a woman who had the facility of a PHC/CHC within the village and upto a distance of maximum 5 kilometers in which she resides in the corresponding figures of National Family Health Survey 1998-99. Physical accessibility are poor in the State, it is shows that the government of the State to provide low coverage of the population with fewer facilities.
For our analysis, however, what is important to note that in Madhya Pradesh though reporting poorer utilization of institutional delivery care services has a better physical accessibility to primary health facilities. Which also reports that lower utilization of institutional delivery services has the most difficult physical accessibility in PHC/CHC? These Centres are expected to be staffed with specialists including a obstetrics & gynecologists. That should make it a place for handling not only normal institutional deliveries but also emergency obstetric care. In actual practice, however, there are several problems affecting the quality of services provided from PHC/CHC, mainly arising from the non-availability of obstetrics & gynecologists are very few 41 at PHC/CHC in Madhya Pradesh (DFW, 2003e).
Private hospital has been reported in various surveys that most of the institutional deliveries take place in private hospitals, particularly in Madhya Pradesh, where levels of institutional delivery are high. The surveys of 1998-99 and 2005-06 have also reported that nearly 80% of the institutional deliveries are reported to have been conducted by private hospitals. The proportion of deliveries conducted by public sector health facilities exceeds that of the private health facilities. Given this inclination for the people to prefer private facilities, the availability obstetrics & gynecologists of private facility at a convenient location is perceived to be an important motivating factor in seeking institutional delivery. It will be seen from this table that there is predominance of private clinics in Madhya Pradesh. "Even with a much low density of the population, much lower proportion of women had convenient physical access to private clinics. The division of rural and urban is an important factor for lower utilization of maternal health care services in rural areas Navaneethan and Dharmalingam (2003)".
All weather roads are recognized that the availability of an all-weather can facilitate quicker transportation of a pregnant woman with complications to the nearest hospital. It removes a very important barrier to physical accessibility. There have been reported cases of women dying while being transported to the hospital through primitive modes of transport. Villages with all-weather road are also likely to have regular public transport facilities. All weather roads is thus a critical component of the supply environment. "We have looked at the availability of all-weather road from two angles – from the angle of overall availability per 100 square kilometer of area/per lakh population; and availability to be respondent women who gave birth during three years prior to the survey in the Madhya Pradesh. In 2003, Madhya Pradesh has 65 kilometers for a land area of 100 square kilometers and 326 kilometers per one lakhs population (MST, 2003)".
Madhya Pradesh had shown that only people within a distance of 5 kilometers used a government Primary Health Centre. "It is possible that the women living in the same village which has a hospital within 5 kilometers could be different. But such differences will be on account of the socio-economic status of the woman/family Rohde and Viswanathan (1994)".
Table 3 presents the availability of all-weather road to respondent women who had childbirth during three years prior to the survey. It will be seen from this table that the facility of all-weather road is available to be increased more than seventy percent in 2005-06 corresponding to 1998-99 in Madhya Pradesh.
Despite these constraints researchers have identified certain indicators which could give an idea about the quality of care provided. The NFHS- 1998-99 and 2005-06 has collected information on some of these indicators such as receiving the service for which the visit was made, waiting time, courteous behavior of the staff and cleanliness of the facility. "The index of quality is based on scores given to the replies of the respondents within a village. The value then is classified into low or high categories. The study on quality of family welfare services and care in selected Indian States Verma et. al (1994). Also study that on commentary on management of quality of care in institutional deliveries Mavalankar (2003)".
It may be seen from table 4 that greater proportion of women who lived in villages which was assessed as having High quality perception of health services, utilised health facility for child birth in 2005-06 corresponding to 1998-99 in rural Madhya Pradesh

during the five years preceding the surveys. But any inference that quality is not important in Madhya Pradesh would be unjustified because of the limitation of the methodology adopted for assessing the quality index.

4. Conclusion

4.1. Demand Aspects of Institutional Delivery (DAOID)

Madhya Pradesh marginally increased in terms of female literacy and per capita income. The proportion of people living below poverty line was also lower than the national average. The State has been able to improve its demographic indicators during the period of 1998 to 2006. Madhya Pradesh has brought down its fertility rate significantly. This has been made possible despite a major handicap-a very low level of female literacy. The proportion of people living below poverty line in the State reflected in the recently announced Population Policy, that they want to catch up with their backwardness of the rural areas (Govt. of M.P., 1998).

From the analysis of the socio-economic context of the respondent mothers it is observed that in Madhya Pradesh nearly two- fifths of the births occurred to women who were illiterate. Large majority of women in Madhya Pradesh did not work outside their homes. In regard to decision making capacity of seeking health care for herself, sixty percent of the women in rural areas of Madhya Pradesh were not involved. The only expectation was 20.7 % could decide for themselves and 19.7 % decided jointly with others in the household. Nearly 70 % of the women belong to the low category of standard of living in the rural areas of the State.

On the whole State, the differences are expected to reflect in the utilization of health care services. The analysis in the subsequent chapters will indicate the extent of influence of these factors in each of the study Madhya Pradesh.

4.2. Supply Aspects of Institutional Delivery (SAOID)

The information on the supply environment presented above indicates that the availability of gross-root rural health infrastructure in the public sector fulfils by and large the prescribed population norms. This is particulary true of sub-health centres and primary health centres. There is however considerable deficiency in the actual availability of services, an account of non-availability of essential staff and medicines. In the case of Community Health Centres and FRUs this deficiency is particularly high. The high level of vacancies of obstetrician-gynecologists in CHCs and FRUs and non-availability of medicines and disposables may be a major limiting factor in greater use of public sector for institutional delivery.

The analysis of births during three years prior to the survey shows that more women have poor physical accessibility in to public sector such as Primary Health Centres, Community Health Centres and Government Hospitals in 2005-0 corresponding to private sector facilities in 1998-99.The poor physical accessibility may probably be on account of the low density of population in Madhya Pradesh. However, the nearer availability of facilities in the State is not converting itself into greater use either because of services being of poor quality of reasons connected with demand for services.

But in regard to private clinics and hospitals, physical accessibility probably where levels of institutional delivery are high. The surveys of 1998-99 and 2005-06 proportion of deliveries conducted by public sector health facilities exceed that of the private health facilities. Given this inclination for the people to prefer private facilities, the availability obstetrics & gynecologists of private facility at a convenient location is perceived to be an important motivating factor in seeking institutional delivery.

The national family health survey 1998-99 and 2005-06 also found that the births during three years prior to the survey reported that physical accessibility to private clinics that there is predominance of private clinics in Madhya Pradesh. Even with a much low density of the population, much lower proportion of women had convenient physical access to private clinics. Greater proportion of women who lived in villages which was assessed as having high quality perception of health services, utilised health facility for child birth in 2005-06 corresponding to 1998-99 in rural Madhya Pradesh during the five years preceding the surveys.

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Annexure: Tables

1. Demand Aspects

Demand Factors	1998-99	2005-06
Age (in years)		
15 - 19	14.7	19.4
20 - 24	19.5	17.7
25 - 29	19.5	16.2
30 – 49	46.3	46.7
Live births	88.1	76.2
Religion		
Hindu	96.4	97.1
Muslim	2.9	2.1
Others	0.7	0.8
Caste		
Scheduled caste/Tribe	38.3	44.4
Others	62.7	55.6
Level of education		
Illiterate	78.7	58.9
Litterate< primary school complete	15.1	17.6
Middle school complete	3.7	20.3
Above middle school	2.6	3.2
Exposed to mass media	42.0	46.2
Women currently working	62.4	64.7
Decision-making status		
Women herself	4.7	20.7
Jointly with others	9.6	19.7
Not involved	85.7	59.5
Standard of living		
Low	51.6	74.6
Medium	36.3	13.3
High	12.1	21.1
Number of Cases	4345	3053

Table 1: Percentage distribution of births during three years prior to the survey of 1998-99 and 2005- 06 by demand factors in the rural areas of Madhya Pradesh in NFHS - 1998-99 and 2005-06.
Source: National Family Health Survey, Raw data 1998-99, 2005-06

2. Supply Aspects

Health Facility	Within the village		Upto a distance of 5 kms @	
	1998-99	2005-06	1998-99	2005-06
Government Hospitals	5.3	3.3	14.1	3.7
Government Dispensary	1.4	0.1	12.9	0.2
PHC/CHC	1.3	3.1	9.3	4.7
Private Hospital	2.3	4.9	5.8	7.5
Private Clinic	0.0	0.1	0.3	0.3
Number of Cases	3001	2070	1344	983

Table 2: Percentage distribution of births by availability of Health Facilities in the village or in the neighborhood for births during three years prior to the NFHS-1998-99 and 2005-06 in Madhya Pradesh.
@ Does not include those who had the health facilities in the village
Source: National Family Health Survey, Raw data 1998-99, 2005-06

All weather road	1998-99	
In the village or within (1 km. distance)	30.8	94.3
Number of Cases	4345	3053

Table 3: Percentage distribution of births during three years prior to the survey by availability of all-weather road either in the village or within 1 kilometer in the Madhya Pradesh, 1998-99 and 2005-06.
Source: National Family Health Survey, Raw data 1998-99, 2005-06

Quality Status	1998-99	2005-06
Low	1.3	11.8
High	2.1	8.4
Number of Cases	3826	2325

Table 4: Percentage distribution of births in the health facilities by Quality of Care in the rural areas of Madhya Pradesh in NFHS-1998-99 and 2005-06.
Source: National Family Health Survey, Raw data 1998-99, 2005-06