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DEMAND FOR HEALTH CARE IN INDIAN CONTEXT[1]

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Abstract:

Demand for different types of health care is changing very rapidly among Indian population in this phase of transition. The fact could be understood from the dwindling pictures of public health facilities in one hand, and flourishing of the numerous private sources of care on the other. However, the point is not clear whether demand for public health facilities has decreased among all sections of population for the easy availability of private sources of care or whether public health care is perceived inferior to the private ones or whether people's realisation on quality of care has altered leading to a change in the appeal towards a particular type of care or sources of it. The present study will investigate such research questions empirically, in Indian context, focusing on some antenatal care which one mother receives during pregnancy. It considers utilisation of public and private sources of care as events, and estimates binary-multivariate logistic regression models with respect to a set of different socio-economic, and demographic factors in the demand side and other service-related factors, such as availability of health facilities, quality of care, etc. in the supply side. Results have been prepared mostly according to the major States or Union Territories of India, which are quite interesting. In most of the States or Union Territories, likelihood of utilising public health facilities decreases sharply with education of the respondents and their respective husbands, as well as with affordability of households. It seems that public health care, in Indian context, is an inferior commodity. Moreover, acceptability of it is concentrated among some religious or some ethnic minorities who generally occupy lower stratum in the local hierarchy. Among the factors in the supply side, availability of drugs played positively towards utilisation of public health facilities. If other things remain the same, prospects of public health care system is better in the eastern region as compared to the southern one. The paper thus draws attention of the policy makers, which is very crucial to determine the strategy of delivering health care in India in this phase of transition.

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1 Introduction

Demand for different types of health care is changing very rapidly among Indian population in this phase of transition. The fact could be understood from the dwindling pictures of public health facilities in one hand, and flourishing of the numerous private sources of care on the other. However, the point is not clear whether demand for public health facilities has decreased among all sections of population for the easy availability of private sources of care or whether public health care is perceived inferior to the private ones or whether people's realisation on quality of care has altered leading to a change in the appeal towards a particular type of care or sources of it. The present study will investigate such research questions empirically, in Indian context, focusing on some antenatal care which one mother receives during pregnancy. The study will be put in the framework of mixed demand-supply economics of health care described previously by Majumder and Upadhyay (2004) and Majumder (2005). More specifically, the study considers utilisation of public and private sources of care as events, and estimates binary-multivariate logistic regression models with respect to a set of different socio-economic, and demographic factors in the demand side and other service-related factors, such as availability of health facilities, quality of care, etc. in the supply side. However, it is to be mentioned that the above-mentioned studies have examined how different factors affect utilisation pattern in contrast to non-utilisation of care or utilisation of modern care in contrast to traditional ones. The present study would like to move a step further to examine likelihood of utilising public health facilities relative to the private ones in this era of neo-liberal economic policies of privatisation and globalisation.

2 Data

The study utilises data from Rapid Household Survey under Reproductive and Child Health Project-Phase I & II (RHS-RCH-I & II). In 1998, the first phase of the survey was conducted in all the States and Union Territories covering 50 per cent of the districts (251) of each State and Union Territory. In 1999, the remaining 50 per cent districts (252) were covered from each State and Union Territory. The survey covered 232228 and 242758 currently married women in the reproductive span (15-44 age-group) in Phase I & II respectively and provides information on utilisation of different maternal and child health care related services as well as data on various socio-economic, demographic and other aspects.

3 Method

3.1 Utilisation of different types of care

In both the phases of the survey respondents have been asked about the type of health facility, which they had utilised for antenatal care. Health facilities have been categorised in 6 different groups: (i) government hospitals, community health centre, rural hospital; (ii) government dispensary; (iii) primary health centre; (iv) sub-centre; (v) private doctor, private hospital; (vi) other. From these 6 categories we will form 2 broad groups: public and private. Respondents have either utilised public health facilities or private facilities or combination of the both. In order to study preciously demand for public or private type of care, we will sort out those cases only where respondents have purely utilised public and / or private health facilities throughout during pregnancy. Mixed cases of utilisation of public facilities with the private ones will be dropped from analysis. After filtering data according to present need, we have 49719 and 52509 cases available for analyses form Phase I & II respectively. Simple counts and percentages will then be presented according to States and Union territories.

3.2 Multivariate analysis

3.2.1The model: Let P be the estimated probability of utilising public health facilities. In Odds form the model is (Retherford and Choe 1993):

$$\Omega = \exp\left(\beta_0 + \sum \beta_{1i} X_{1i} + \sum \beta_{2i} X_{2i} \right) \quad \ldots \quad \ldots \quad \ldots \quad \ldots \quad \text{(i)}$$

where Odds $\equiv \frac{P}{1-P} \equiv \Omega$. The equations include demand-side (X_{1i}), and supply-side (X_{2i}) factors (including the geographical factor in the models for India as a whole). Models will be estimated according to phase of the survey (phases I & II), and according to major States and Union Territories of India or specified otherwise.

3.2.2 Definition of the variables: As per the scope of the study and according to the availability of data, the present study would like to include the following set of explanatory variables, and response variable as shown in table 1. The first row shows the response variable and the remaining ones show predictor variables all of which are categorical. Predictor variables are in two groups. Age, family size, birth order, respondent's education, husband's education, caste / ethnicity, religion, and affordability are in the demand-side; and availability of plants and equipments, availability of drugs, and quality of care are in the supply-side economics of health care. We have also included one geographical factor (geographical region) to observe regional variation in pattern of utilisation of care. It is to be mentioned that RHS-RCH does not provide with any information on availability of health facilities, and income of households. However, we have taken one proxy measure: type of locality (rural / urban) to measure availability of plants and equipments with the assumption that those are easily available in the urban areas. Affordability of a household will also be measured by one proxy variable, type of house. We have two variables representing availability of drugs: whether the respondent was given iron folic acid (IFA) tablet / syrup, and tetanus toxoid injection during check-up. Quality of care is measured by availability of services from the point of view patients' realisation of those: whether weight of the respondent was taken, blood pressure was measured, and abdominal check-up has been performed.

4 Results and discussion

4.1 Descriptive statistics

Tables 2 and 3 display descriptive statistics on utilisation of different types of care in phases I and II of the survey respectively. It can be checked from both the tables that in demographically advanced southern States majority of the respondents have utilised private health facilities. On the contrary, majority of the respondents in most of the backward northern and eastern States have utilised public health facilities. This fact raises question on the role of the public health care system towards fulfilling demographic and other socio-economic objectives.

4.2 Multivariate analysis

Tables 4A, 4B, 5A, and 5B display odds ratios of utilisation of public health facilities in different States and Union Territories of India and the country as a whole. Results with respect to age, and family size are mixed. In some States likelihood of utilisation of public health facilities increases with age. It indicates that demand for public health care is high among aged mothers in those states. It tacitly points out that demand for private care is high among young mothers. In most of the States, odds ratios of utilisation of public health facilities decline with family size. It tells that demand for public health care is comparatively lower in large families then in the smaller ones. Popular

literature on economics of health care theorises that in large families per capita may be less and it may reduce chances of utilisation of a care (Feldstein 1979). Our findings show that in such cases, in Indian context, households prefer private health facilities, which are expensive as compared to the private ones. This may be due to diffusion of bad experience associated with previous utilisation of public health facilities through close and intensive interaction among family members or with neighbours. Chances of utilisation of public health facilities are higher for women with higher order of birth. As we know that higher order of birth, in Indian context, is associated with mothers living with low socio-economic profile, in spite of high risk mothers are seen to prefer public health facilities. The reverse may also be true – people with complex problems trust on public health facilities. Probability of utilising public health facilities declines sharply with respondent's and respective husband's education, and affordability of household. It seems that, to the educated and affordable households, public health care is an inferior commodity. Ethnicity or caste has significant impact on utilisation pattern of maternal health care. Mothers belonging to SC and ST categories are likely to utilise public health facilities more. Socially, these two ethnic groups are seen as occupying the lower stratum of the local hierarchy. So, acceptability of the public health care system is also not equal to all sections of the population. The only exceptional case of West Bengal draws our attention, where scheduled tribes are very less likely to utilise public health facilities. Probably, still they remained isolated and far away from (public) modern care. Pattern of utilisation of care also varies sharply with religion. In most of the States, as compared to Hindus, Muslims are very less likely to utilise public health facilities. Mothers belonging to other religious categories (mostly Christians in Gujrat, Goa and in the north-eastern hilly States, Orissa) have a tendency to utilise public health facilities more.

In the supply side, results with respect to availability of plants and equipments are mixed. However, for most of the cases likelihood of utilisation of public health facilities decreases with the availability of those. Availability of drugs is positively and very strongly related to utilisation of public care. As IFA tablets / syrup, and tetanus toxoid injections are freely given to the users of public health facilities under the current RCH programme, it has significant impact on the preference for a care. By and large, quality of care is negatively related to utilisation of public health care. It tacitly indicates that respondents reported utilisation of quality services from the private health facilities. If we look at the geographical factor, we see that odds ratios of utilising public health facilities in the eastern and northern regions are significantly high as compared to that of the southern region.

5 Summary and Conclusion

The study provided us with interesting results. In the demand side, in most of the models, likelihood of utilising 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 of birth. 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 other words, 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. If other things remain the same, prospects of public health care system is better in the

eastern region as compared to the southern one. To sum up, as the paper finds out, people with higher social and economic status are seen to prefer private health care. On the contrary, people, who are lagging behind, are still seen to depend upon public health care. The paper thus very clearly traces a transitional phase with changing demand for different types of health care by people with varying socio-economic profile, and consequently draws attention of the policy makers, which is very crucial to determine the strategy of delivering health care in India in such s phase of transition.

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Table 1. Response and Predictor variables in the model and definitions

Variable	Definition	Value
Utilisation	Whether the respondent visited purely public health facilities throughout during pregnancy (reference periods: in Phase I -- since 01 January 1995 till the date of survey in 1998; in Phase II -- since 01 January 1996 till the date of survey in 1999).	1 if public facilities, 0 otherwise.
Age	Age of the woman in two categories: 15 - 29, 30 - 44.	1 if age 35-44, 0 otherwise.
Family size	Number of persons in the household.	1 if size > 5 0 otherwise.
Birth order	Order of birth	0 if first order, 1 otherwise.
Respondent's education	Number of completed years of education in three categories: ≤ 3, 4-10, 10+.	1 if 4 ≤ years ≤ 10, 0 otherwise; 1 if years > 10, 0 otherwise.
Husband's education	Whether husband can read or write.	1 if yes, 0 otherwise.
Caste / Ethnicity	Caste / ethnicity of the respondent in three categories: general, scheduled caste (SC), scheduled tribe (ST).	1 if SC, 0 otherwise; 1 if ST, 0 otherwise.
Religion	Religion of the respondent in three categories: Hindu, Muslim, other (Christian, Sikh, Buddhist, Jain, Zoroastian, No religion, and other).	1 if Muslim, 0 otherwise; 1 if other religion, 0 otherwise.
Affordability	It has been measured by type of house in 3 categories: low (Kachcha / muddy floor / structure), medium (Semi-pucca / cement-floor but roof is made of other material), and high (Pucca / fully concrete structure).	1 if medium, 0 otherwise; 1 if high, 0 otherwise.
Availability of Plants & Equipments	Measured by type of locality (rural / urban) with the assumption that health facilities are easily available in urban areas.	1 if yes (urban), 0 otherwise.
Availability of Drugs	Whether the respondent was given Iron Folic Acid (IFA) tablet, and Tetanus Toxoid injection during check-up. Three categories: low (nil), medium (any 1 of the above), and high (both the above).	1 if medium, 0 otherwise; 1 if high, 0 otherwise.
Quality of care	Whether weight, and blood pressure of the respondent were measured and abdominal check-up has been performed during visit. Three categories: low (nil), medium (at least 1 of the 3), and high (at least 2 of the 3).	1 if medium, 0 otherwise; 1 if high, 0 otherwise.
Geographical region	Respondent's geographical region: Southern (Andhra Pradesh, Daman & Diu, Dadra & Nagar Haveli, Goa, Karnataka, Kerala, Lakshadeep & Minicoi, Maharashtra, Pondichery, Tamil Nadu) / Eastern (Andaman & Nicobar Islands, Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Orissa, Sikkim, Tripura, West Bengal) / Northern (Bihar, Chandigarh, Delhi, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Madhya Pradesh, New Delhi, Punjab, Rajasthan, Uttar Pradesh).	1 if East, 0 otherwise; 1 if North, 0 otherwise.

Table 2. Utilisation of health facilities for antenatal care in India (RHS-RCH Phase-I)

States / Union Territories	Private		Public		N
	n	%	n	%	
Andhra Pradesh (AP)	1742	63.32	1009	36.68	2751
Arunachal Pradesh (ARP)*	1349	25.21	4001	74.79	5350
Asom (AS)	643	26.02	1828	73.98	2471
Bihar (BI)	2146	70.90	881	29.10	3027
Goa**	648	42.46	878	57.54	1526
Gujarat (GU)	1321	63.85	748	36.15	2069
Haryana (HA)	785	45.24	950	54.76	1735
Himachal Pradesh (HP)	55	5.51	943	94.49	998
Jammu & Kashmir (JK)	76	13.40	491	86.60	567
Karnataka (KA)	1178	53.64	1018	46.36	2196
Kerala (KE)	836	61.88	515	38.12	1351
Madhya Pradesh (MP)	1308	35.51	2375	64.49	3683
Maharashtra (MR)	2077	46.22	2417	53.78	4494
Orissa (OR)	630	20.89	2386	79.11	3016
Punjab (PU)	1052	47.82	1148	52.18	2200
Rajasthan (RA)	443	22.49	1527	77.51	1970
Tamil Nadu (TN)	1469	61.13	934	38.87	2403
Uttar Pradesh (UP)	2114	36.27	3714	63.73	5828
West Bengal (WB)	828	39.73	1256	60.27	2084
India	20700	41.63	29019	58.37	49719

* *Includes Meghalaya, Manipur, Mizoram, Nagaland,Sikkim, and Tripura*
*** Includes Andaman & Nicober, Chandigarh, Daman & Dieu, Delhi, Pondicheri,*

Table 3. Utilisation of health facilities for antenatal care in India (RHS-RCH Phase-II)

States / Union Territories	Private		Public		N
	n	%	n	%	
Andhra Pradesh (AP)	1612	62.99	947	37.01	2559
Arunachal Pradesh (ARP)*	1398	26.51	3876	73.49	5274
Asom (AS)	565	27.98	1454	72.02	2019
Bihar (BI)	2285	77.77	653	22.23	2938
Goa**	718	33.84	1404	66.16	2122
Gujarat (GU)	1151	65.03	619	34.97	1770
Haryana (HA)	1374	54.50	1147	45.50	2521
Himachal Pradesh (HP)	81	5.46	1402	94.54	1483
Jammu & Kashmir (JK)	308	23.04	1029	76.96	1337
Karnataka (KA)	1052	46.53	1209	53.47	2261
Kerala (KE)	1157	68.83	524	31.17	1681
Madhya Pradesh (MP)	1092	36.23	1922	63.77	3014
Maharashtra (MR)	1751	53.14	1544	46.86	3295
Orissa (OR)	717	24.65	2192	75.35	2909
Punjab (PU)	875	40.42	1290	59.58	2165
Rajasthan (RA)	696	18.46	3074	81.54	3770
Tamil Nadu (TN)	1166	57.81	851	42.19	2017
Uttar Pradesh (UP)	2470	35.95	4401	64.05	6871
West Bengal (WB)	1059	42.31	1444	57.69	2503
India	21527	41.00	30982	59.00	52509

** Includes Meghalaya, Manipur, Mizoram, Nagaland,Sikkim, and Tripura*
*** Includes Andaman & Nicober, Dadra and Nagar haveli, Daman & Dieu, Laksha Deep and Minicoi, Pondicheri,*

Table 4A. Odds ratios [Exp (β)] of utilisation of public health facilities in India – RHS-RCH-Phase I

Predictor variables	AP	ARP*	AS	BI	Goa**	GU	HA	HP	JK	KA
Demand-side factors										
Age of the respondent (rc: 15 - 29)										
30 - 44	ns	ns	ns	1.302[1]	ns	0.762[2]	ns	ns	2.860[1]	ns
Family size (rc: ≤ 5)										
5 +	ns	1.159[2]	0.835[3]	0.829[3]	0.592[1]	0.749[1]	ns	ns	ns	ns
Birth order (rc: 0)										
1 +	1.305[1]	1.247[1]	1.240[2]	ns	ns	1.353[1]	ns	ns	0.550[2]	ns
Respondent's education (rc: ≤ 3 years)										
4 -10	0.644[1]	0.529[1]	ns	0.812[2]	0.383[1]	ns	ns	0.364[3]	ns	0.602[1]
10 +	0.307[1]	0.175[1]	0.542[1]	ns	0.314[1]	0.589[1]	0.500[1]	ns	ns	0.224[1]
Husband's education (rc: illiterate)										
Literate	0.804[2]	ns	ns	0.780[2]	0.569[2]	0.609[1]	ns	1.464	ns	0.745[2]
Caste / ethnicity (rc: general)										
Scheduled caste	1.472[1]	1.915[1]	ns	1.337[2]	1.525[2]	2.137[1]	ns	ns	ns	2.280[1]
Scheduled tribe	2.165[1]	ns	2.197[1]	1.703[1]	ns	1.573[1]	ns	ns	ns	ns
Religion (rc: Hindu)										
Muslim	1.395[1]	ns	0.541[1]	0.598[1]	ns	ns	ns	ns	ns	1.365[2]
Other religion	ns	0.814[3]	0.541[3]	ns	1.400[3]	2.087[3]	ns	.231[3]	ns	ns
Affordability (rc: low)										
Medium	0.653[1]	0.834[2]	0.594[1]	ns	0.220[1]	ns	ns	ns	ns	1.551[1]
High	0.635[1]	0.742[1]	0.507[1]	0.736[1]	0.205[1]	0.562[1]	0.596[3]	0.336[2]	ns	ns
Supply-side factors										
Availability of Plant & Equipments (rc: no)										
Yes	1.194[3]	ns	0.393[1]	1.330[2]	ns	0.766[2]	ns	ns	-	ns
Availability of Drugs (rc: low)										
Medium	ns	ns	ns	ns	ns	2.114[2]	ns	ns	ns	ns
High	ns	1.474[2]	ns	ns	ns	4.026[1]	ns	ns	ns	3.914[1]
Quality of care (rc: low)										
Medium	ns	0.547[1]	ns	ns	ns	0.716[2]	ns	ns	ns	ns
High	ns	0.432[1]	0.536[2]	0.589[1]	ns	0.436[1]	0.634[1]	ns	ns	0.357[1]
n (number of cases)	2751	5350	2471	3027	1526	2069	1735	998	567	2196

rc: reference category, ns: not significant; [1]p<0.01, [2]p<0.05, [3]p<0.10

AP: AndhraPpradesh, ARP: Arunachal Pradesh, AS: Assam, BI: Bihar, GU: Gujrat, HA: Haryana, HP: Himachal Pradesh, JK: Jammu & Kashmir, KA: Karnataka

** includes Meghalaya, Manipur, Mizoram, Nagaland,Sikkim, and Tripura*

*** Includes Andaman & Nicober, Chandigarh, Daman & Dieu, Delhi, Pondicheri,*

Table 4B. Odds ratios [Exp (β)] of utilisation of public health facilities in India– RHS-RCH-Phase I

Predictor variables	KE	MP	MR	OR	PU	RA	TN	UP	WB	India
Demand-side factors										
Age of the respondent (rc: 15 - 29)										
30 - 44	ns	1.362[1]	ns	ns	ns	ns	ns	ns	ns	1.058[2]
Family size (rc: ≤ 5)										
5 +	ns	0.861[3]	ns	ns	ns	0.793[3]	1.185[3]	0.820[1]	0.734[1]	0.894[1]
Birth order (rc: 0)										
1 +	ns	1.168[2]	1.210[1]	ns	ns	ns	1.305[1]	1.161[2]	ns	1.159[1]
Respondent's education (rc: ≤ 3 years)										
4 -10	0.518[3]	0.820[2]	0.625[1]	0.668[1]	ns	ns	0.659[1]	ns	0.719[1]	0.782[1]
10 +	0.261[1]	0.462[1]	0.290[1]	0.704[3]	0.389[1]	ns	0.243[1]	0.491[1]	0.148[1]	0.413[1]
Husband's education (rc: illiterate)										
Literate	ns	ns	0.629[1]	ns	0.809	ns	0.692[1]	0.848[2]	0.513[1]	0.846[1]
Caste / ethnicity (rc: general)										
Scheduled caste	ns	ns	1.581[1]	ns	1.282[2]	ns	1.663[1]	1.270[1]	1.287[3]	1.359[1]
Scheduled tribe	ns	ns	1.209[3]	ns	ns	ns	ns	ns	ns	1.311[1]
Religion (rc: Hindu)										
Muslim	0.331[1]	ns	ns	ns	ns	1.679[2]	ns	0.717[1]	0.594[1]	0.879[1]
Other religion	0.429[1]	ns	ns	1.877[2]	ns	0.527[1]	ns	ns	ns	ns
Affordability (rc: low)										
Medium	ns	ns	0.784[1]	ns	1.886[1]	ns	0.582[1]	ns	ns	0.929[1]
High	0.434[1]	0.556[1]	0.468[1]	0.629[1]	ns	ns	0.392[1]	0.775[1]	0.414[1]	0.713[1]
Supply-side factors										
Availability of Plants & Equipments (rc: no)										
Yes	1.313[3]	1.428[1]	0.633[1]	0.749[2]	0.725[2]	ns	ns	0.731[1]	ns	0.949[2]
Availability of Drugs (rc: low)										
Medium	ns	ns	ns	ns	2.610[2]	ns	ns	1.700[1]	ns	1.278[1]
High	ns	2.176[1]	2.575[1]	2.791[1]	19.656[1]	ns	ns	5.122[1]	7.413[1]	2.818[1]
Quality of care (rc: low)										
Medium	ns	ns	2.079[1]	ns	ns	0.687[3]	ns	1.165[2]	0.518[1]	0.901[1]
High	ns	0.556[1]	1.768[1]	0.683[1]	0.283[1]	0.383[1]	0.467[2]	0.422[1]	0.269[1]	0.516[1]
Geographical region (rc: South)										
East	-	-	-	-	-	-	-	-	-	2.884[1]
North	-	-	-	-	-	-	-	-	-	1.530[1]
n (number of cases)	1351	3683	4494	3016	2200	1970	2403	5828	2084	49719

rc: reference category, ns: not significant; [1]p<0.01, [2]p<0.05, [3]p<0.10

KE: Kerala, MP: Madhya Pradesh, MR: Maharashtra, Orissa, PU: Punjab, RA: Rajasthan, TN: Tamil Nadu, UP: Uttar Pradesh, WB: West Bengal

Table 5A. Odds ratios [Exp (β)] of utilisation of public health facilities in India– RHS-RCH-Phase II

Predictor variables	AP	ARP*	AS	BI	Goa**	GU	HA	HP	JK	KA
Demand-side factors										
Age of the respondent (rc: 15 - 29)										
30 - 44	ns	0.763[1]	0.726[2]	ns	ns	0.736[2]	ns	ns	ns	ns
Family size (rc: ≤ 5)										
5 +	ns	1.302[1]	ns	0.810[2]	ns	1.266[2]	ns	ns	0.772[3]	ns
Birth order (rc: 0)										
1 +	1.195[3]	1.289[1]	1.343[2]	ns	ns	ns	1.229[2]	ns	ns	ns
Respondent's education (rc: ≤ 3 years)										
4 -10	0.655[1]	0.490[1]	ns	0.782[2]	ns	0.661[1]	ns	ns	1.387[3]	0.521[1]
10 +	0.315[1]	0.190[1]	0.419[1]	0.675[2]	ns	0.291[1]	0.571[1]	0.204[1]	ns	0.285[1]
Husband's education (rc: illiterate)										
Literate	0.698[1]	0.547[1]	ns	ns	ns	ns	ns	3.215[2]	0.532[1]	0.695[1]
Caste / ethnicity (rc: general)										
Scheduled caste	1.594[1]	ns	ns	1.808[1]	2.497[1]	1.792[1]	ns	ns	ns	2.310[1]
Scheduled tribe	1.520[2]	ns	1.708[1]	2.641[1]	13.592[1]	1.529[2]	ns	ns	ns	1.987[1]
Religion (rc: Hindu)										
Muslim	1.371[3]	0.708[2]	ns	ns	1.516[2]	ns	0.557[1]	ns	0.155[1]	ns
Other religion	ns	ns	ns	ns	1.784[2]	0.322[2]	ns	0.320[2]	ns	ns
Affordability (rc: low)										
Medium	0.720[1]	0.731[1]	0.657[1]	0.660[1]	0.547[2]	ns	1.548[1]	ns	1.526[2]	ns
High	0.529[1]	0.389[1]	0.275[1]	0.508[1]	0.214[1]	ns	ns	ns	ns	0.542[1]
Supply-side factors										
Availability of Plants & Equipments (rc: no)										
Yes	ns	0.789[1]	0.686[2]	ns	ns	1.382[1]	1.216[3]	0.363[1]	-	0.648[1]
Availability of Drugs (rc: low)										
Medium	ns	ns	ns	ns	ns	ns	ns	ns	1.687[2]	ns
High	4.670[1]	ns	ns	2.504[2]	6.160[2]	2.710[2]	2.237[3]	ns	ns	3.294[1]
Quality of care (rc: low)										
Medium	ns	ns	0.538[2]	ns	ns	0.742[3]	1.623[1]	ns	2.673[1]	ns
High	0.615[3]	ns	0.511[1]	0.563[1]	2.212[2]	0.505[1]	1.226[3]	ns	ns	ns
n (number of cases)	2559	5274	2019	2938	2122	1770	2521	1483	1337	2261

rc: reference category, ns: not significant; [1]p<0.01, [2]p<0.05, [3]p<0.10

AP: AndhraPpradesh, ARP: Arunachal Pradesh, AS: Assam, BI: Bihar, GU: Gujrat, HA: Haryana, HP: Himachal Pradesh, JK: Jammu & Kashmir, KA: Karnataka

** includes Meghalaya, Manipur, Mizoram, Nagaland,Sikkim, and Tripura*

*** Includes Andaman & Nicober, Dadra and Nagar haveli, Daman & Dieu, Laksha Deep and Minicoi, Pondicheri,*

Table 5B. Odds ratios [Exp (β)] of utilisation of public health facilities in India– RHS-RCH-Phase II

Predictor variables	KE	MP	MR	OR	PU	RA	TN	UP	WB	India
Demand-side factors										
Age of the respondent (rc: 15 - 29)										
30 - 44	ns	1.241[2]	ns	ns	ns	ns	ns	1.163[2]	ns	ns
Family size (rc: ≤ 5)										
5 +	0.759[2]	ns	ns	ns	ns	ns	ns	ns	ns	ns
Birth order (rc: 0)										
1 +	ns	ns	1.275[1]	1.274[2]	ns	1.230[2]	ns	ns	ns	1.125[1]
Respondent's education (rc: ≤ 3 years)										
4 -10	ns	ns	0.647[1]	0.578[1]	ns	0.779[2]	0.577[1]	0.855[2]	0.696[1]	0.813[1]
10 +	0.488[2]	0.448[1]	0.281[1]	0.426[1]	0.581[1]	0.329[1]	0.141[1]	0.478[1]	0.338[1]	0.399[1]
Husband's education (rc: illiterate)										
Literate	0.481[2]	.806[2]	0.705[1]	ns	ns	ns	0.679[2]	ns	0.739[1]	0.888[1]
Caste / ethnicity (rc: general)										
Scheduled caste	1.364[3]	1.327[2]	1.717[1]	ns	2.022[1]	ns	1.942[1]	1.331[1]	1.532[1]	1.427[1]
Scheduled tribe	4.080[2]	1.268[2]	ns	ns	ns	ns	ns	2.025[1]	0.454[1]	2.036[1]
Religion (rc: Hindu)										
Muslim	0.593[1]	ns	ns	0.590[2]	ns	.560[1]	ns	0.675[1]	ns	ns
Other religion	0.504[1]	ns	ns	ns	0.802[3]	ns	0.509[2]	ns	1.930[3]	ns
Affordability (rc: low)										
Medium	ns	0.829[3]	0.773[2]	ns	ns	ns	0.718[3]	0.816[1]	ns	0.846[1]
High	0.446[1]	0.748[2]	0.375[1]	0.588[1]	ns	ns	0.394[1]	0.743[1]	0.483[1]	0.681[1]
Supply-side factors										
Availability of Plants & Equipments (rc: no)										
Yes	ns	ns	1.197[2]	0.723[1]	.490[1]	0.601[1]	1.750[1]	0.598[1]	1.577[1]	0.794[1]
Availability of Drugs (rc: low)										1.265[1]
Medium	ns	ns	ns	ns	ns	1.618[2]	ns	1.885[1]	ns	
High	ns	2.794[1]	ns	2.193[2]	7.836[1]	2.334[1]	6.437[3]	4.531[1]	4.923[1]	2.513[1]
Quality of care (rc: low)										
Medium	ns	ns	ns	ns	0.717[2]	0.566[1]	ns	ns	ns	ns
High	ns	0.575[1]	ns	0.480[1]	0.374[1]	0.368[1]	0.240[1]	0.353[1]	0.650[1]	0.579[1]
Geographical region (rc: South)										
East	-	-	-	-	-	-	-	-	-	2.086[1]
North	-	-	-	-	-	-	-	-	-	1.524[1]
n (number of cases)	1681	3014	3295	2909	2165	3770	2017	6871	2503	52509

rc: reference category, ns: not significant; [1]p<0.01, [2]p<0.05, [3]p<0.10

KE: Kerala, MP: Madhya Pradesh, MR: Maharashtra, Orissa, PU: Punjab, RA: Rajasthan, TN: Tamil Nadu, UP: Uttar Pradesh, WB: West Bengal