

Socio-Economic and Demographic Determinants of Out-of-Pocket Expenditure on Women’s Curative Healthcare: Insights from Rural Odisha

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Abstract

In developing countries such as India, the lack of adequate spending by the government on social sectors leads individuals to spend out of pocket on curative health care services, resulting in a considerable financial burden, especially on women, due to pervasive gender inequalities based on entrenched patriarchal institutions. This work investigates the socio-economic and demographic determinants affecting OOPE for curative care among women, assesses the prevalence of women-specific morbidities, and identifies preferences for institutions using primary data from 100 sampled households in the Balasore district of Odisha. From the empirical evidence presented, it becomes apparent that health financing in the region displays strong regressivity. Specifically, the proportion of income spent on medical services reduces with increasing household annual income levels. Overall, 36% of the households are found to spend between 5% and 10% of their incomes on health-related activities, whereas only 6% incur severe hardships, which involve expenditures between 25% and 30%. The situation of higher expenditures on healthcare among low-income households is attributed to the poor baseline nutrition status and poor sanitation levels among such households. However, most importantly, the data highlights an extreme form of gender bias within the households, whereby 41 families spend less than 5% of their budgets on the health of women. In this respect, the policy implications include the need to extend universal health coverage policies to outpatient curative care, conducting quality audit inspections on the public medicines sector, decentralising school health programs on hygiene, and offering medical transportation vouchers, among other fiscal incentives.

Key Words: *Out-of-Pocket Expenditure, Health Financing, Reproductive Health Problems, Balasore.*

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I. Introduction

Investment in the human capital of an economy is highly intertwined with the structural duality of the health and education sectors, with investment in the former serving as a strategic catalyst to spur long-term economic growth. In emerging economies such as India, the health sector remains privatized, and health investments are viewed through a lens of personal consumption rather than as an essential public social investment. Due to this structural duality, individuals face no option but to use out-of-pocket expenditure (OOPE) for their health requirements. Past studies on health care in the national context have demonstrated that OOPE makes up the majority percentage of total health expenditure in India, amounting to 48.2% of the latter. The curative health services (health services that focus on the diagnosis and treatment of disease rather than prevention), which make up a significant portion of the health burden faced by households, are dominated by pharmaceuticals bought from the private sector and outpatient visits (Ambade et al., 2022). Investment in the health sector is productive, as it increases incomes, especially those of poor people, and lowers the human burden from illness. Health is both an objective of development and a vehicle for promoting development. A strategy to focus on the health aspect within the development process is one way of ensuring welfare improvements in developing nations. Empirical evidence collected over the past thirty years shows that, contrary to income, there has been a reduction in the disparity between poor and rich countries in terms of health. Considering the adverse impact that poor health has on people, resource allocation, and utilization, improved health could translate into improved economic outcomes.

In that sense, the issue of gender within the context of health finance presents itself in India in relation to serious structural disparities. Indeed, women have specific biological and sociological risks; however, when it comes to prioritizing their health needs in decision-making processes at the household level, these women suffer from a particularly harsh triple burden involving sickness, gender discrimination, and high costs (Ladusingh et al., 2018). The factors such as family income, level of education and occupation of the household head, and

social caste considerably influence a woman's ability to access treatment or experience health-care deprivation. In poorer families or those with lower levels of social caste, even one outpatient treatment may result in health expenditure shocks (Karan et al., 2014; Ladusingh et al., 2018). Moreover, demographic variables such as age, marital status, size of the family, and location (for example, rural vs. urban) have as much impact as socioeconomic determinants on OOPE in the case of females. Odisha, at the sub-national level, provides an illustrative example of divergent development. Although progress has been achieved on universal health coverages and institutional delivery systems by means of specific public programs (Mohanty & Srivastava, 2012), there are still major issues concerning curative, non-maternal healthcare funding, which is mostly funded by private sources. Several empirical studies show that the costs of health care serve as a significant source of distress finance, forcing individuals to sell off their assets and/or borrow money in order to afford specialized health care services, especially in the private sector (Haakenstad et al., 2022; Rout & Choudhury, 2018).

Balasore, being one of the districts of Odisha, is another illustration of this economic dilemma on a smaller scale. Being home to agrarian rural communities and developing semi-urban areas, the level of access to healthcare infrastructure in the district can be described as unevenly distributed, as a result of which the prevalence of the use of private pharmacies, diagnostics, and outpatient care results in catastrophic healthcare costs that bring poor households to a state of increased poverty. It is crucial to analyze and comprehend the empirical mechanisms underlying the relationship between socioeconomic status and demographics and their effect on the cost incurred by women seeking cure from private institutions. The current paper attempts to address this issue by analyzing household attributes and their effect on healthcare spending in Balasore district.

The relation between economic development and health is well recognized. The status of health of its human resources in a country affects its economic growth through various channels. When the health of the residents improves, productivity will simultaneously improve. Through better quality of human resources, the country will be able to produce more output with any given combination of natural resources, physical capital, skills and technological knowledge, because of improved efficiency of human resources. There have been very few studies reported in the literature that provide an overarching examination of utilization of health care services by reproductive-aged people and family expenditure on health in relation to their gender (men and women), area (rural and urban), availability of health facilities (public and private health centers) and household income. Increased knowledge about which people (women or men) and in which area (rural or urban) have high family health expenditure and their utilization patterns of health services will facilitate policymakers and health care providers in developing and providing services for them.

II. Review of Literature

The health economics empirical evidence clearly indicates that both women's health-seeking behaviors and OOPE are strongly conditioned by various socio-economic, demographic, and institutional contexts. Roy & Niranjana (2004) have analyzed the nature of women's autonomy in India by explaining that the deeply entrenched patriarchy imposes lifetime dependency on male family members that inevitably marginalizes the well-being of women and makes them systematically underprioritized during the household resource allocation process starting from childhood years. As for marginalized groups, namely young, unmarried, or disabled women, whose general health requirements remain consistently disregarded by the institutional structure, this trend becomes even more prevalent, thereby resulting in substantially lower rates of hospitalizations among women than men (Health for the Millions, 1997). In terms of economics, household income limitations and maternal education become essential factors in determining the care process, as evidenced in a study by Chakraborty et al. (2003), which found that around 46 percent of women in the traditional setting do not resort to medical services even when suffering from serious pathologies, while having maternal secondary education boosts the chances of seeking formal medical help by 1.8 times. In addition to economic inequality, physical barriers contribute to costs incurred for curative treatment, as evidenced through multiple regression models utilized by Habib and Vaughan (1986) to illustrate the fact that proximity to the nearest healthcare provider and perceptions of household illness are the main determinants of health-seeking behavior. This is supplemented by Shashi Tyagi (2004), who explains how rural poverty and remoteness result in increased female vulnerability to complications during pregnancy such as miscarriages and compel use of unhygienic methods because of the absence of any health infrastructure nearby. Additionally, the author Neelam Sharma (2009) stresses that rural women carry an added double burden of household and income-generating activities which hinders them from raising concerns related to health care, even though even in urban areas females' non-maternal health care receives little institutional support. The gendered nature of institutional neglect in health care is further elaborated by Stella R. Quah (2011) using a dual analysis, revealing that although morbidity in the public domain is gradually being leveled out, significant differences still exist in terms of illness care at home. In terms of macro-policies, Harini Narayanan (2011) identifies that Indian health policies have traditionally walked on the razor edge of a highly unstable fault line between objectives aimed at population control and well-being, often ignoring crucial aspects in their curative welfare regime. Thirdly, on a micro-level framework, the

decision-making process within the household serves as the final barrier towards accessing medical services; as per Dr. Alka Barua (2007), married adolescent females are often not encouraged by male-dominated structures, where illness is confined to being a 'women's territory' and maternal influences prefer traditional practices over modern medicines, indicating that it is important to take into consideration both socio-demographic factors along with the family dynamics while analyzing women's curative OOPs.

Out-of-pocket expenditure (OOPE), as a barrier to human capital formation, is an important concept in the field of health economics whereby the under-provision of public funding increases the burden of medicine on the family budget. In the case of India, according to Ambade et al. (2022), the largest proportion of this burden comes from private drugs and outpatients' diagnoses, resulting in ongoing spending, which according to Karan et al. (2014) always leads to poverty in families who are already poor and lack any type of universal risk protection. However, the effect of this problem is moderated by socioeconomic position, as Ladusingh et al. (2018) pointed out regressive catastrophic health expenditure (CHE) among poor wealth groups, even during inexpensive curative visits, while Sahoo (2013) showed in Odisha that CHE would be decreased in higher educated families since they do not have any form of asymmetric information. According to Haakenstad et al. (2022), there is a strong distinction between urban and rural areas in terms of higher non-medical OOPE, which occurs because of the location of healthcare facilities. Also, Ladusingh et al. (2018) explained the concept of "the triple burden," suggesting that non-maternal curative disorders are always ignored in the distribution of household resources. Moreover, Mohanty and Srivastava (2012) revealed that the targeted programs implemented by the government were also associated with additional leaks in OOP expenditures related to the diagnostics process. This implies that secondary public facilities lack institutional supply and medicines, pushing people to turn to more costly private pharmacies (Rout & Choudhury, 2018). Therefore, distress financing becomes inevitable, and curative surgeries cost patients 1.7 times more OOP expenses than other cases, making them use their savings and borrow money to pay their medical bills (Rout et al., 2016).

III. Methodology

This study uses both primary data as well as secondary data but considering the element of accuracy; the emphasis would primarily be on collecting primary data. The secondary data shall be utilized as per the requirements of this study. The use of Multi-stage-Random sampling method for collecting primary data has been suggested in this study and the sampling units have been categorized as follows: the female respondents from the district for carrying out the household survey which includes the users of existing health facilities and also the providers of the health services in the public sector from the two selected blocks of Oupada and Nilgiri in Balasore District, Odisha.

As far as the primary aspect of the study is concerned, the villages selected for this study were two villages from the block of Oupada and one NAC from Nilgiri Block. Primary data has been collected from a total of 100 households, fifty from each block to analyze the health conditions of the households. Data regarding the factors influencing the expenditure on health have been collected including income, educational qualification, number of members in the family, age, duration of the illness, area and reproductive age group. The estimation was based on the data from samples, both qualitative as well as quantitative data have been used for the above analysis. In this case, there is an effort to analyze the healthcare expenditure by considering both the total health expenditure as well as expenditure on women's health. The method used here is that of multiple regressions analyses, multiple regression has been conducted twice; first multiple regression for total health expenditure and second, multiple regression for expenditure on women's health.

IV. Results and Discussion

In the current research, it is hypothesized that the status of health is dependent on various factors such as area (rural & urban), Reproductive age, Marital Status, Total Family Income, types of problems, accessibility to health facilities, utilization of facilities, type of utilization facility, education, Total Family Health Expenditure, Duration of Illness and Household Size the current research, the functional relationship between TFHE (dependent variable) and independent variables Age, Area, Gender, Education, Marital status, TFI and DI is established using Regression analysis. The other relationship, which deals specifically with the woman, for this study, is that between TFHE and independent variables – age, Area, Education, Marital Status, TFI, and DI.

Family Expenditure on Health in Different Income Groups

The health care utilization depends on the need, the willingness, and the ability to pay that individuals bring to the care-seeking process. The family's ability to pay mostly depends on the cost of health services in relation to their income (WHO, 2008). In recent years, economists have argued the opposite, that it is ill health that leads to poverty, and have shown that poor health harm households' income and economic growth rate (R. J. Barro 1996, J. P. Smith 1999, Mayer D. et al 2000). Poor health reduces households' capacity to earn income and accumulate wealth by limiting work, raising medical expenses and reducing savings. They do not have

enough income to get out of the illness-poverty trap (WTO 2004). In the study of Balasore district, it has been found that sometimes poverty is the cause of illness, and sometimes it is the effect of it. Income, an important determinant of health, is more plausible in poor sections (Angus Deaton, 2003, Nirupam Bajpai and Ravindra H. Dholakia 2006, WHO 2008).

Ratio of family health expenditure to the family income

On the basis of the collected data, the family income is divided into seven groups. Income groups are divided on the basis of the collected data from the field survey. Family health expenditure expressed as a ratio of family income is presented here in the following table

Table 1. Ratio of family health expenditure to the family income

Ratio of Total family health expenditure to the family income							
Income	Below5%	5-10%	10-15%	15-20%	20-25%	25-30%	Total
>30000	1	0	0	4	0	0	5(5%)
30,000-50,000	3	2	1	2	0	0	8(8%)
50,000-80,000	7	2	2	0	1	2	14(14%)
80,000-100000	2	2	2	0	2	0	8(8%)
100000-150000	2	8	2	0	2	0	14(14%)
150000-200000	8	10	2	3	0	0	23(23%)
200000-300000	0	6	4	1	2	1	14(14%)
<300000	0	6	0	0	3	5	14(14%)
Total	(23%)	36(36%)	13(13%)	10(10%)	10(10%)	8(8%)	100(100)

Note. Figure in percentage

The table shows the ratio of family health expenditure to the family income of 100 households. It has been found in Balasore district that in the lowest income group, less than 30000 4% households spend 15-20% of their income on health care and only 1%, less than 5% of their income. In the second slab of income, 30000-50000, there are 8 families 3% spend less than 5%, 2% households spend 5-10% on health care, 1% families spend 10-15% from their income, and 2% families spend 15-20% on health from their total income. In the third slab of income, 7% families spend less than 5%, only 2% families spend 5-10%, 2% are 25-30% from their income, out of a total of 14 families. From the survey it is evident that out of 100 families the THFE 19% families are less than 5% spend on health from their family income .36% families are 5-10% spend on health care services .17% families spend 10-15% on health .16% families spend 15-20% of income on health .12% families expenditure on health is 20-25% of their total income and lastly only 6 families are spend 25-30% of income on health care services. From the table we find that more families spend 5-10% on health care services from their family income. Such high proportions of expenditure on health by very low-income group families suggest that in poor families, lack of economic resources leads to their weaker health status and thus the higher frequency of falling ill. As a result, their expenditure on health care services is more. On the other hand, it is evident that most of the families are in higher income; only 1 percent of their income is spent on health care. Although health expenditure can affect health conditions, for low-income group families, even relatively small expenditures on health can be financially devastating. In such condition, under provided financial resources that they are used for basic needs thus less capable to cope with even very low health expenditure, compared to the richer households.

It is evident from the above table that the ratio of family health expenditure goes down as per capita annual income increases. The proportion of income on illness is greater in lower income slabs whereas in higher income group this proportion is less as the higher income group can avail better food, nutrition, sanitation etc. and their health status is good. From the above table it is concluded that the proportion of income spent on health expenditure is higher in poor families as compared to rich families; but, the absolute amount on health expenditure is high in the rich families than the poor families.

Ratio of Women Health Expenditure to Family Health Expenditure

There are a substantial proportion of illnesses prevailing among the women of weaker sections in Oupada and Nilgiri blocks in Balasore district. There is primary evidence of poor health status of women which adversely affects their participation in the earning economic activities and their economic status. Basically, they

work on daily wages or as agricultural laborers. After playing an important role in their household income, they are not serious towards their health problems, especially those related to their reproductive health except infertility and repeated miscarriages. Perception behind this behavior is rooted in their illiteracy, traditional social norms and financial condition.

Table 2 shows the percent share of reproductive aged women's health expenditure share in families that used various health services by different income Characteristics. The main purpose has been to identify differences in women's health care utilization and expenditure by different per capita annual income characteristics. There are a number of reasons why it is important to look at the categories of health expenditures on women between income groups of households.

Table2. Ratio of Family Health Expenditure on Women to Total FamilyHealth Expenditure

Ratio of women's health expenditure to familyhealth expenditure							
Income	<5%	5-10%	10-15%	15-20%	20-25%	25-30%	Total
>30,000	4	1	0	0	0	0	5
30,000-50,000	3	2	1	1	1	0	8
50,000-80,000	4	4	2	2	0	1	14
80,000-100000	4	3	0	1	1	0	8
100000-150000	5	5	2	2	0	0	14
150000-200000	8	3	3	0	0	0	14
200000-300000	6	5	4	1	1	1	18
<300000	7	6	3	1	1	1	19
Total	41	29	15	8	4	3	100

Note: Figure in parenthesis is percentage.

Results from table shows that out of 100 families, 41 families health expenditure on women below 5% only ,29 families have spent 5-10% on women health expenditure ,15 families spend 10-15% on women health,8 families spend on 15-20% on women ,4 families spend 20-25% on women health and lastly only 3 families are spend on25-30% from their different level of income.

In different income group families there are 10% to 31% families whose women's health expenditure is up to 25%. A number of women have some or the other ailment but they do not take it seriously. So their health expenditure is low; especially, in case of RHPs like white or discharge of any type, dizziness, painful menstrual cycle or related problems, backache, stomachache, lower abdominal pain, muscle cramp etc., until they are aggravated. In case of GHPs they do not avoid them and these types of health problems affect their health quickly and reduce their level of productivity. These health problems directly affect their efficiency level andas sometimes they are not even able to go for work, it is then that they go for treatment: to avoid loss of wage.

Choice of health facility depends on some factors like severity of illness, gender, area, financial condition, duration of illness, work condition (busy or slack season in agriculture/work),importance in family, fame of health provider, availability of health providers in terms of distance, time, cost of treatment, specialization etc. In case of RHPs, women suffer more than men. In Balasore district, traditional culture of shyness, hesitation to disclose reproductive organs related health problems and humiliation; they are not easily discussed and taken treatment for the same. In very poor families these health problems are common due to unhygienic living conditions, non-availability of nutritious food, repeated pregnancies, unsafe deliveries and abortions, if any

Econometric Modeling on Health Expenditure

As explained in the introduction, the main purpose of this research is to find out the determinants of the expenditure of households on health expenditure as well as the expenditure onwomen's health in the study area. This section describes an attempt to estimate the health expenditure of the two blocks of Balasore district of Orissa. A sample of one hundred households, fifty from each block, was taken to estimate the health expenditure of the households. The information about various determinants such as income, educational qualification, number of family members, age, duration of sickness, geographic location, number of members below reproductive age group, etc., was collected from the sample households. Based on the sample data, both qualitative and quantitative information, the estimation was carried out for the health expenditure of the households. Here, an attempt has been made to see health care expenditure in terms of total expenditure as well as expenditure on women's health among the sample households. For estimating this, two regression analysis models were considered: first for total health expenditure and second for expenditure onwomen's health.

$$TFHE = \alpha_1 + \beta_1 TFI + \beta_2 EDU + \beta_3 AGE + \beta_4 AREA + \beta_5 DI + \beta_6 TRA + \beta_7 HHS + U_i$$

Symbolically, it can be written as:

$$Y = \alpha_1 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + U_i$$

Where, α_1 = intercept term

β_1 = Coefficient of total income

β_2 = coefficient of educational qualification of the head of the household

β_3 = coefficient of the age of the head of the household

β_4 = coefficient of area.

β_5 = coefficient of duration of illness

β_6 = Coefficient of members under reproductive age

β_7 = Coefficient of Household size

U_i = error term.

Here, the total family income (TFI), Education level(ED), age of the head of the household (AGE), area (AREA), duration of illness (DI), members under reproductive age (TRA) and household size (HHS). Educational Qualification here is categorized into illiterate, literate, primary, secondary, technical and higher. Area is also classified into two broad types, namely rural and urban. One for the urban area and zero for other areas.

Table 3. Estimated Results of the Total Family Health Expenditure Model

Variable	Coefficient	t-Statistic	Prob.
C	-9563.111	-0.821134	0.4137
TFI	0.044263	3.75384	0.0003***
EDU	3071.085	2.431695	0.017**
AGE	239.6793	1.754304	0.0827*
AREA	-1013.843	-0.327595	0.744
DI	50.39662	2.297885	0.0238**
TRA	-559.1957	-0.367128	0.7144
HHS	-294.4523	-0.222985	0.824
R-squared	0.36		
F-statistic	7.51		
Prob(F-statistic)	0.00		
Durbin-Watson stat	1.87		

Note: ***denotes significant at 1 % level

** denotes significant at 5% level

* denotes significant at 10% level

$$TFHE = -9563.11 + 0.044 TFI + 3071.08 EDU + 239.67 AGE - 1013.84 AREA + 50.39 DI - 559.19 TRA - 294.45 HHS$$

Table 1 above shows the estimated value for each of the variables used above. From Table 1, it can be clearly seen that the values of the coefficients of each of the variables are positive and significant. The above values indicate that the variables positively affect the health expenditure of the households. But, the remaining variables such as area, reproductive members in the household and the size of the household have no significant effect on the health expenditure of the households. Only income, age and duration of illness of the head of the household are significant at 1%, 5% and 10% levels respectively while education is significant at 5%. Coefficient of total family income 0.044 implies that when income level is increased by one unit, the health expenditure of the household increases by 0.04 units. On the same note, the coefficient of education, age and duration of illness imply that when the above mentioned variables are increased by one unit, the health expenditure increases by 3071.08, 239.67 and 50.39 respectively. The F-statistics and probability values of the F-statistics are highly significant with very little probability value 0.0000. This implies that all the variables taken together are highly significant in determining the health expenditure of households in the region being studied. The R-Square value gives an indication that 36 percent of variation results from the independent variables. Additionally, the Durbin-Watson statistic is very close to two, meaning that the errors do not have any autocorrelation between them. From the above discussion, it can be clearly seen that household income,

educational levels of the heads of households, age of the household and period of illness are highly significant determinants of the health expenditure of the families in the study area.

Expenditure on Women Health

After the ICPD conference in 1994 at Cairo, worldwide governments have recognized the inequalities in health indices. Many policies and programmes to improve women's health have been implemented with paradigm shift, which are more gender sensitive. Today, policies and programs that deal with women's issues are inclusive and take into account the needs of the women who are affected by such policies (Harini Narayanan, 2011). Health does not only depend on the provision of medical services but is also influenced by the development of society in terms of culture, economics, education, politics and socialization. All these factors have a significant bearing on the health status and also influence each other in turn (Basu, 1992). The level of education of women could influence their reproductive behavior, use of contraceptives and hygiene and status in general (Buckshee K. 1997). Consequently, any investment in the area of health would be crucial for economic growth of a country (World Bank 1993). It has been pointed out that when there is an increase in costs of healthcare, women are adversely affected due to their subordinate position and lack of access to essential resources to acquire such services (Ostlin 2005; Ravindran and Maceira 2005).

$$\text{TFHE on Women} = \alpha_1 + \beta_1\text{TFI} + \beta_2 \text{EDU} + \beta_3 \text{AGE} + \beta_4 \text{AREA} + \beta_5 \text{DI} + \beta_6 \text{TRA} + \beta_7\text{HHS} + U_i$$

Symbolically, it can be written as:

$$Y = \alpha_1 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \beta_6X_6 + \beta_7X_7 + U_i$$

Where, α_1 = intercept term

β_1 = Coefficient of total income

β_2 = coefficient of educational qualification of the head of the household

β_3 = coefficient of the age of the head of the household

β_4 = coefficient of area.

β_5 = coefficient of duration of illness

β_6 = Coefficient of members under reproductive age

β_7 = Coefficient of Household size

U_i = error term.

Table 4. Estimated Results of the Total Family Health Expenditure on Women

Variable	Coefficient	t-Statistic	Prob.
C	-3025.311	-0.342332	0.7329
TFI	0.019014	2.130789	0.0358**
EDU	2325.384	2.427828	0.0171**
AGE	133.4877	1.28768	0.2011
AREA	-3149.273	-1.343668	0.1824
DI	13.17264	0.793022	0.4298
TRA	-228.5575	-0.198069	0.8434
HHS	-243.0711	-0.242501	0.8089
R-squared	0.22		
F-statistic	3.57		
Prob(F-statistic)	0.00		
D-W stat	2.02		

Note: ***denotes significant at 1 % level

** denotes significant at 5% level

* denotes significant at 10% level

$$\text{TFHE ON WOMEN} = -3025.3 + 0.019 \text{ TFI} + 2325.38 \text{ EDU} + 133.48 \text{ AGE} - 3149.27 \text{ AREA} + 13.17 \text{ DI} - 228.55 \text{ TRA} - 243.07 \text{ HHS}$$

The above table depicts the values for the above-mentioned variables. One may observe from the table that coefficients of these variables including total family income, education, age, and duration of illness are positive implying positive impact of the variables on expenditure on health of women. However, it may be observed that other variables including area, members under reproductive age, and household size have negative values indicating insignificant impact of the mentioned variables on expenditure on health of women. One can also note that only two variables including total family income of the household and educational status of the

head of the household have 5% significance levels. For example, the coefficient of total income of the household, that is, 0.019 implies that a change of 0.019 occurs in health expenditures if there is one unit change in total income level. In the same way, an increase of 2325.38 occurs in expenditure on women health with one unit increase in educational status of the household head. As far as the significance level of the estimated F-statistic and probability of F-statistics is considered, then it can be seen that both of these values are highly significant with very low probability level equal to zero. This means that all variables together are significantly contributing towards explaining the health expenditure of households in this region. As far as the R-square value is concerned, then it can be seen that the variations accounted for by independent variables is equal to 22%. The Durbin-Watson statistics are close to two and therefore, there is no presence of any autocorrelation amongst the error terms. From the above analysis, it can be concluded that income, education of household heads, age of the household and length of illness period are significantly influencing the health expenditure of households in the selected region. From the above mentioned two regression models, it can be seen that income of household and education of household heads are significantly influencing the health expenditure and expenditure on women's health respectively.

The empirical results obtained from the primary survey are extremely valuable at a micro-level in understanding the socio-economic and demographic pathways through which OOPE occurs in respect of women's curative healthcare services in Balasore district. The survey provides evidence of stark occupational and spatial dualism, as the households located in urban areas and supported by formalized governmental services have a much greater chance of spending money on health care services than their rural, agricultural counterparts. The close geographic proximity to the health center guarantees a higher level of healthcare access, but the distinction made between the two types of healthcare services emphasizes the significant financial risks involved. While the former is more often used for predictable conditions like tuberculosis or normal pregnancy because of its low cost, the latter is more frequently resorted to in case of a sudden curative crisis like miscarriage or menstrual complications. This institutional arrangement results in regressive economic consequences because despite many families investing 5% to 10% of their total income towards health care services, financially distressed people experience catastrophic health expenditures (CHE) in which 30% of their total budget is utilized towards personal medical treatments and commercial pharmaceutical products because of drug stock-outs or concerns about the quality of the medication provided by the government. Most importantly, this conversation reflects the gender disparity within the family regarding resources. Even though women suffer from higher rates of female morbidities such as leukorrhea and chronic abdominal pains, their health care needs receive lower priorities, and the vast majority of families spend less than 5% of their total budget on female health care. Therefore, it can be concluded that the lack of physical facilities cannot solve this problem since women's curative health care practices are limited by a combination of financial neglect, poor adolescent menstrual awareness practices, and cultural taboos.

V. Conclusion

The study generates critical evidence from Balasore district indicating that out-of-pocket expenditures (OOPEs) towards the curative health care of women are strongly influenced by interconnected socioeconomic and demographic dimensions. Although geographical closeness to health institutions has been successful in ensuring a high health-seeking rate, socioeconomic inequities prevail deeply embedded in the households' decision making process. It becomes evident that there is a distinct spatial and occupational dichotomy, whereby rural agricultural households have a relatively greater financial burden than urban households supported with regular income. This disadvantage is further accentuated due to shortages in the supply side in public health institutions and reliance on private providers for non-maternal female ailments resulting in catastrophic health expenditures. Above all, the study exposes the extent of intra-household gender discrimination whereby even though women have a disproportionate share of reproductive and non-reproductive sicknesses, they lack access to health due to low priority allocation of finances. Therefore, the study confirms the need to ensure not only the availability but the accessibility of health services for women through social insurance schemes, decentralized health knowledge and awareness, and gender-sensitive policies. The implications drawn from this micro-level research in the Balasore district provide invaluable policy directions on rethinking health financing, socially inclusive budgeting for gender equity, and regional health planning. Firstly, because a large number of households experience financial distress due to expenditure on private pharmacies and diagnostics, existing state universal health assurance schemes need to be expanded structurally to fully incorporate OPD curative treatment, especially for non-pregnancy-related diseases in women. Secondly, in view of the massive leakage of out-of-pocket expenditure due to the shortage or low quality of medicines supplied by the state, policymakers have to ensure stringent quality audits and develop a zero-shortage supply chain for the delivery of essential drugs for curative purposes in public primary and secondary health facilities. Thirdly, in response to the problem of widespread reproductive disorders like leukorrhea and menstrual complications in adolescent girls, decentralized community-based campaigns on health literacy have to be conducted at schools and Anganwadist

overcome any social stigma attached to consulting doctors for feminine problems. Lastly, to tackle the phenomenon of discrimination in intra-household spending that allocates less than 5% of household expenditure on women's health, policymakers should come-prioritize female curative care early and safeguard vulnerable families from health-induced financial shocks.

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