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## **GENDER INEQUALITY IN HOUSEHOLD HEALTH EXPENDITURE: THE CASE OF URBAN ORISSA**

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### **I. INTRODUCTION**

Gender inequalities in health are related to gender disparities in health status and differences in power. Gender inequalities, on the other hand, are related to power and have an ethical component that biology does not. Gender role describes how people publicly express themselves in their clothing, use of cosmetics, hairstyle, conversation, body language, appearance, and behaviour. Gender discrimination, biological differences, individual and societal beliefs and attitudes about appropriate gender-specific roles, and the choices of individuals and households based on all of these factors (and more, such as an individual's own circumstances) play a role in determining gender disparities. These factors are causally interrelated and it is very difficult to disentangle what are the underlying causes and what are merely proximate indicators or symptoms.

Using a collection of data assembled from the Demographic Health Surveys from a large number of countries and the National Family Health Surveys from the individual states of India, Filmer, King, and Pritchett (1998) create a new data set of comparable indicators of gender disparity. They found that within South Asia, and even within India or Pakistan, there are huge variations in gender disparity. On some indicators of gender disparity, an Indian state may be very near the best or very near the worst observed in the rest of the world. In child mortality, some Indian states like Tamil Nadu and Kerala have much lower gender disparity than the average of non-South Asia countries (with a female to male ratio below 1), while others have a higher gender disparity than any other country in the world. The ratios of 2.35 (Haryana), 2.06 (Punjab-Pakistan), 1.81 (Punjab-India), 1.79 (Baluchistan), and 1.70 (Uttar Pradesh) are all more than a standard deviation higher than the highest in any non-South Asian country (Egypt, 1.46).

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<sup>1</sup> The views expressed are strictly personal. They may not reflect those of the institutions with which the author is associated.

From many perspectives women in South Asia find themselves in subordinate positions to men and are socially, culturally, and economically dependent on them (Narayan, et. al., 2000). Women are largely excluded from making decisions, have limited access to and control over resources, are restricted in their mobility, and are often under threat of violence from male relatives (Jejeebhoy and Sathar, 2001). Sons are perceived to have economic, social, or religious utility; daughters are often felt to be an economic liability because of the dowry system (Arnold, Choe and Roy, 1998). The “gender gap” is gradually increasing in many developing countries, and India is no exception. In India, over the last fifty years, the number of females per thousand males has gone down from 1053 to 933 (see Figure 5.1).

Gender disparities in health outcomes in India are prominent and disturbing. Since their biological resilience is higher, girls begin with lower mortality rates than boys during the first month of life. But from the post neonatal period to five years, girls have higher mortality rates. Girls also have higher levels of malnutrition that place them at higher risks of both illness and death (Table 1). According to Census 2001, the trend of the sex ratio has been arrested, and indeed, marginally reversed (Figure 5.1), the further decline in the sex ratio in 0-6 age group is a cause for serious concern (Mishra et. al., 2003).

We believe that individual and societal beliefs about and attitudes towards appropriate gender specific roles, and the choices of individuals and households on the basis of these factors, mean that women are disadvantaged with regard to health and health care. There are some instances in which gender differences hurt men's health—for example, men are more likely to be involved in road crashes or occupational accidents as they are more likely to be outside the home or in a workplace than women. However, most of the evidence shows that gender inequalities have led to a systematic devaluing and neglect of women's health (Fikree and Pasha, 2004).

There is growing evidence from various fields of health research - whether biomedical or social – that, risk factors; biological mechanisms; clinical manifestations; causes, consequences and management of diseases may differ between men and women. This is related both to sex (biology) and to gender (the social construction of masculinity and femininity). In order to be able to assess which health disparities between men and women reflect inequities, research needs to analyze the complex ways in which biological and social factors interact. Research must also investigate the different experiences, behaviour, social norms and status (power) of men and women that underpin health status, health-seeking behaviour and access to resources. Prevention, treatment, rehabilitation and the delivery of

care need to be adapted to take these factors into account. If they are not taken into account, they may adversely impact the health of both women and men.

From the above review of literatures, it is evident that all literatures have been based on macro level data but the present study is based on primary data. Secondly, it is also found that a large proportion of research has concentrated on a few key states – Kerala, Madhya Pradesh, West Bengal and Uttar Pradesh – while paying less attention to others. In this connection the present study is related to ‘Orissa’. The main objective of the article is to study the gender inequalities in household health expenditure in urban Orissa. The paper has four sections. Section I introduces the paper. Section II states about the database and methodology. Section III discusses the results and section IV concludes the paper.

## **II. DATABASE AND METHODOLOGY**

The study is fully based on primary data collected from Bhubaneswar (new State capital of Orissa) and Cuttack (old state capital of Orissa) which are chosen on the basis of judgment sampling method as both the cities appropriately represent urban Orissa. The sampling unit is household (HH). Multi-stage random sampling method is adopted to select HHs from each city. The first stage units are the wards and second stage units are the HHs. The sample size is one hundred twenty one.

To substantiate the objective, i.e., to study the gender bias in health expenditure, regression analysis is used and descriptive statistics are estimated. Three variables are used for this purpose: Per Capita Health Expenditure (PHE), per male health expenditure (PMHE) and per female health expenditure (PFHE). PHE is calculated by dividing total annual health expenditure of the household by the household size. PMHE is calculated by dividing total annual male healthcare expenditure of the household by number of male members of the household. PFHE is calculated by dividing total annual female healthcare expenditure of the household by number of female members of the household.

## **III. RESULTS**

The descriptive statistics shows (see Table 2) that PHE is Rs.2044.9 per annum with 2466.2646 and 1.21 as standard deviation and coefficient variation respectively where as PMHE is Rs. 1984.88 per annum with 2599.2108 and 1.31 as standard deviation and coefficient variation respectively and PFHE is Rs. 2483.83 per annum with 3507.9128 and 1.41 as standard deviation and coefficient variation respectively. There is a significant

difference between PMHE and PFHE in urban area with  $P$  value equal to 0.083. The PFHE is more than the PMHE due to extreme high and low values of female health expenditures of some households, which can be observed from coefficient variation and the range of PFHE.

The PHE, PMHE and PFHE of rural Orissa are 46.34, 43.98 and 47.07 per cent of the PHE, PMHE and PFHE of urban area respectively (Rout, 2005). It indicates that irrespective of sex and gender, urban people are spending more than rural because of their high income and more consciousness about health and they are more prone to illness due to environmental pollution.

To find out the impact of PMHE and PFHE on PHE a linear regression model is found (see Table 3, Figure 5.3 and 5.4) to be fitted as  $PHE = -6.21 + 0.59 PMHE + 0.54 PFHE$  with  $R^2$  value 0.96. In the ANOVA (see Table 3),  $F$  value ( $P = 0.00$ ) shows that PMHE and PFHE significantly influence the PHE. The model indicates that, if PMHE changes by a rupee, the PHE on the average changes by fifty nine paise and if PFHE changes by a rupee, the PHE on the average changes by fifty four paise. It means male influences household health expenditure more than the female in urban area. The autocorrelation problem is also taken care of by the D-W statistics test.

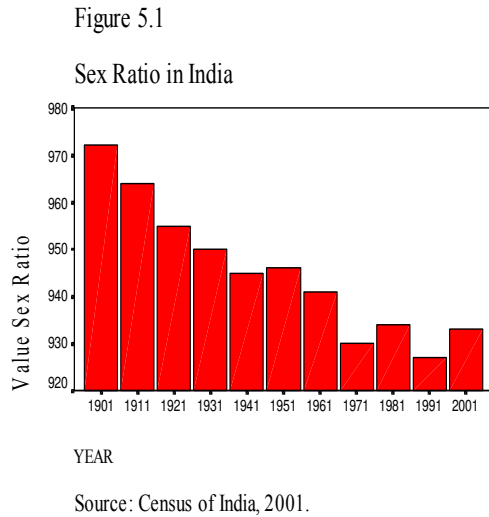
#### IV. CONCLUSION

Biologically determined sex and socially constructed gender have strong bearing on the household out-of-pocket health expenditure. The study shows that there is a significant difference between male and female out-of-pocket health expenditure in urban area. But the female out-of-pocket health expenditure in urban area is more than that of rural and tribal areas. The regression model indicates that the male out-of-pocket health expenditure influences per head out-of-pocket health expenditure by fifty-nine per cent where as female influence is fifty-four per cent. It means male influences out-of-pocket health expenditure more than the female in urban area. This is also true in case of rural and tribal Orissa (Rout, 2005).

A comparative study of influence of sex and gender on health expenditure in rural and urban Orissa shows that the influence of male on the PHE in rural area is more than in urban area and the influence of female on it is higher in urban area than rural area. This indicates that there is more gender consciousness in urban area than in rural area in respect of health expenditure and this may be due to the impact of education and modernity.

In this connection, to reduce this gender inequality, men, first, recognize the roles and contributions of female in family as well as in the society. Secondly, women actively

participate in all household decision making process and have the power to speak out their problems. Thirdly, cooperation, coordination, sharing and understanding between men and women is essential. Fourthly, male and female educational level has a positive role to bring equality between men and women in household and societal decision making process.



**TABLE 1**  
**FEMALE AND MALE HEALTH**  
**OUTCOMES AND SOCIAL INDICATORS**

Indicator	Male	Female
Neo natal Mortality Rate (NNMR)	50.7	44.6
Post NNMR	24.2	26.6
IMR	74.8	71.1
CMR	24.9	36.7
Underweight for age (below two SD)	45.3	48.9
Attending Primary School	85.2	78.3
Attending Secondary School	80.2	67.0
Fully Immunized	43.1	40.9

Source: Mishra et.al. (2003), p.80

**TABLE 2**  
**DESCRIPTIVE STATISTICS**

VARIABLES →	PHE	PMHE	PFHE
DESCRIPTIVE STATISTICS ↓			
Mean	2044.8956	1984.8278	2483.8292
Standard Deviation	2466.2646	2599.2108	3507.9128
Coefficient of Variation	1.21	1.31	1.41
Highest Value	13100.00	13100.00	27000.00
Lowest Value	137.50	75.00	0.00
Range	12962.50	13025.00	27000.00

Source: Compiled from Primary Data

FIGURE 5.3

RELATIONSHIP BETWEEN

PHE AND PMHE (URBAN AREA)

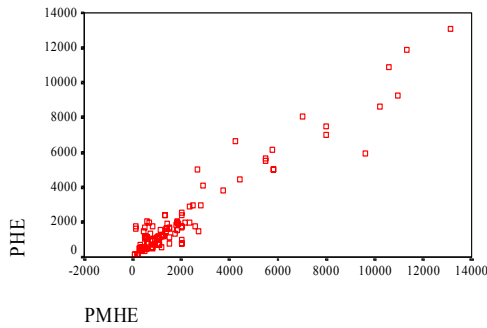


FIGURE 5.4

RELATIONSHIP BETWEEN

PHE AND PFHE (URBAN AREA)

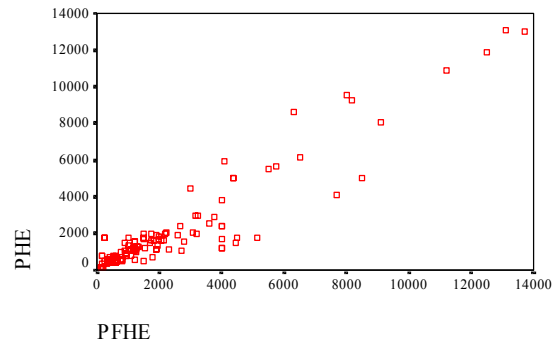


TABLE 3

REGRESSION OUTPUT: ANOVA<sup>b</sup>

	Sum of Squares	df	Mean Square	F	Sig.	R <sup>2</sup>	Std error	D-W Stat.
Regression	700045879.367	2	350022939.68	1383.70	.00 <sup>a</sup>	.96 <sup>a</sup>	502.95	2.02
Residual	29849432.252	118	252961.290					
Total	729895311.619	120						

a Predictors: (Constant), PFHE, PMHE

b Dependent Variable: PHE

COEFFICIENTS<sup>a</sup>

Standardized Coefficients	t	Sig.	95% Confidence Interval for $\beta$		Correlations		Collinearity Statistics		
			Lower Bound	Upper Bound	Zero-order	Partial	Tolerance	VIF	
$\beta$									
Constant	-6.207	-0.103	0.918	-125.243	112.829				
PMHE	0.59	27.28	0.00	0.518	0.599	0.862	0.929	0.744	1.344
PFHE	0.54	25.01	0.00	0.349	0.410	0.837	0.917	0.744	1.344

a Dependent Variable: PHE

Source: **Compiled from Primary Data**

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