

Widening Gender Disparity in Household Health Expenditure in India and its States, 1999-2010

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Abstract: This study endeavours to shed light on the changing pattern of gender disparity in household health expenditure over time in India and states over the last decade, between 1999-2000 and 2009-10. Unit level data from two surveys of the National Sample Survey on household Consumer Expenditure have been used for the study. Findings from Bivariate Analysis indicate wide disparity between men and women where men are privileged and the inequality has considerably increased over time, though the composition of female population has shifted during the period. Theil Decomposition Analysis reveals that the between group contribution to the total inequality in health expenditure is high and has increased over time, which signifies that gender is an important factor explaining inequality in health expenditure. Hence, there is a need of evolving policies to meet the healthcare needs of women and also to improve social status of this vulnerable group.

Keywords: Gender disparity, Health expenditure, Decomposition analysis, Public policy.

Introduction

Gender disparity dwells not only outside the household but also centrally within it. It stems not only from pre-existing differences in economic endowments between women and men but also from pre-existing gendered social norms and social perceptions. Gender inequality has adverse impact on development goals as it reduces economic growth. It hampers the overall well-being, because blocking women from participation in social, political and economic activities can adversely affect the whole society. Gender inequities refer to the discrimination and differential treatment of men or women in ways that are unfair, avoidable, unjust, and/or unnecessary (Whitehead, 1992). In societies where women are of a lower status than men, gender inequities are often mirrored in terms of restrictions in education, health care, economic and employment opportunities, and choices regarding marriage and reproductive health matters (UNPF, 2011). Sustainable Development Goal-3 (SDG-3) targets to ensure healthy lives and promote well-being for all at all ages and SDG-5 aims to “achieve gender equality and empower all women and girls” with specific focus on ending all forms of discrimination against all women and girls everywhere (MoSPI, 2018). In a study Singh (2017) found that single older women in India suffered from greater rates of self-reported morbidities and a very lower proportion of single older women were able to access health care services.

Gender inequities are multidimensional and affect women’s access to health care in more ways than one (Sen, 2001). Women generally have higher life expectancies than men, because of their biological and behavioral factors. Yet this advantage is overridden in many contexts, and female life expectancy at birth is sometimes lower than or equal to that of males (WHO, 2011). Additionally, women’s higher longevity often does not translate into healthier lives, and in many low- and middle-income countries, women undergoing pregnancy and

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childbirth are often unable to access maternal health care due to systematic discriminations or inequities rooted in gender norms within the society they live in. Lack of autonomy, male dominance in relationships, and gender-based violence are other examples of gender inequities that affect access to health care (Ridgeway and Correll, 2004; WHO, 2011). In several parts of the world, women receive less attention and health care than men do and particularly girls often receive very less support than boys. As a result of this gender bias, the mortality rates of females often exceed those of males in these countries (Mehrotra and Chand, 2012).

This is an important issue because gender discrimination that contributes to poorer health status for girls than for boys is likely to be the main pathway for excess female mortality (Sen, 2001). Many developing countries including India have displayed gender inequality in education, employment and health as gender discrimination is a major concern in India and most of its states. The women in India are sometimes marginalized or neglected on the gender discrimination when it comes to basic healthcare. Women in India face various socio-economic, environmental, psychological and health related issues due to their increased vulnerability, as they are more likely to be widowed, have low economic security, lower educational attainment, less labour force experience and more care giving responsibilities (WHO,2002). According to gender inequality index (GII), India ranks 126th among 146 countries, lagging far behind its regional neighbours. Discrimination against women and girls remains the most prominent form of inequality. Gender based violence, economic discrimination; reproductive health inequities and harmful socio-cultural practices are various ways in which women are relegated to a much lower status. As a consequence, gender inequality has several negative and harmful effects on the health of women (Shah, 2012).

Sen, Iyer and George (2002) have analysed India's National Sample Survey data for 1986-87 and 1995-96 to study the change in health inequality by gender, and have found that gender inequity, particularly in untreated morbidity and health care cost, continued to be severe. Ostlin, George and Sen (2009) analysed mortality, morbidity, health care and clinical health in both the high and low income countries like Mali, Bolivia, India, South Africa, Egypt, China, Poland and Sweden. They conclude that gender acts as an important determinant of health inequalities and inequity. Kenzie et al. (2010) analyses of national data on 9164 representative elderly Americans, to investigate gender differences in the use of healthcare and the extent to which any observed gender differences were mediated by differential health needs and economic access. They find that health needs were substantially greater among older women compared with older men, and that women had fewer economic resources. Batra, Gupta and Mukhopadhyay (2014) use a longitudinal survey on rural patients suffering from cancer in a public tertiary health centre in Odisha and investigated if there are gender differences in health expenditures and treatment seeking behaviour among adults, focusing on the role of gender discrimination in explaining these differences. They conclude that expenditure on female adults are significantly lower than those on males. Rout (2006) analysed the data of 120 households from urban Odisha to assess the gender difference in health expenditure. The author finds that there is a significant difference between male and female out-of-pocket health expenditure in urban areas. Saikia et. al. (2016) found that Indians spend less on female healthcare than on male. Borooah (2016) has conducted a study on health outcomes of elderly in India and concluded that compared to elderly men, significantly smaller amounts were spent on elderly women with respect to in- patient and out-patient care. Moreover, compared to men, women's ailments were more likely to be chronic and also more likely to be continuing ailments. Agewell (2015) study reported that according to 86.13% elderly respondents, health status of elderly women is neglected due to

gender bias. The study also revealed that in rural areas 88% elderly respondents claimed that gender discrimination is also responsible for poor health condition of elderly women, whereas in urban areas 83.84% elderly respondents said that elderly women do not get proper health care in comparison to their male counterparts.

An integrative review to explore issues faced by ageing women, Davidson, Digiacomio, and McGrath, 2011 suggests that women continue to face inequities related to health care, often invisible within the discourse of the ageing policy. Lancaster, Maitra and Ray (2008), use the 50th round of the National Sample Survey data of India for three states, namely Kerala, Bihar and Maharashtra, to examine the gender difference in expenditure allocation, and found that it is more prevalent in the adult age group. They conclude that in Maharashtra, increase in the proportion of male adults lead to a strong and significant increase in the budget share of food, whereas that in female adults leads to a statistically significant decline, thus, providing a strong example of pro-male gender bias in food spending in Maharashtra. According to a study conducted by Nesbitt et al. (2008) in Canada, consumption of many food items varies by gender and specific foods are significantly more likely to be consumed by the elderly male individuals. A large number of studies have been done to study preferences for sons over daughters and the effect of gender inequality in education, employment and health (Arnold et al 1998, Desai 1994, D'Souza and Chen 1980, Miller 1981 etc.). Studies in India have found that boys are much more likely than girls to be taken to health facility at the time of sick (Govindaswamy and Ramesh 1996, Kishore 2005). Das Gupta (1987) found that while boys and girls had roughly similar calories intake, girls were given more cereal, while boys were given more milk and fat with their cereal. Lakshmana (2006) tried to understand the demographic changes and gender inequality in the states of Madhya Pradesh and Karnataka and found a significant gender difference in education and health.

From the foregoing discussion, it is noted that sporadic attempts have been made to find the gender disparities in health care and other expenditures in India and that the few available studies are far from complete. The present study is an attempt to fill this research gap and provides empirical evidence on the extent of gender discrimination in health care expenditure in India and its states. Keeping the abovementioned discussion in view, this paper makes an attempt to elucidate gender disparity in household health expenditure in India between 1999-2000 and 2009-10. The study is pertinent in Indian context for the reason that the life expectancy of women has overtaken that of men, gender role in Indian society is not changed enough to prevent discrimination of women. The findings of the study may provide inside evidence to serve as the basis for the need of evolving policies to meet the healthcare needs of this vulnerable group.

Data and Methodology

Data

The data used in this study are from the 55th round (1999-00) and 66th round (2009-10) of National Sample Survey Office (NSSO) on household consumer expenditure. The National Sample Survey Organisation (NSSO) conducts regular consumer expenditure surveys as part of its rounds, each round being normally of a year's duration and covers more than one subject of study. The surveys are conducted through household interviews, using a random sample of households covering practically the entire geographical area of the country. The sampling designs adopted in all the rounds of NSSO surveys are multi-stratified sampling and are comparable. The household consumer expenditure schedule used for the

survey has collected information on quantity and value of household consumption with a reference period of last 30 days for most items of consumption and last 365 days for some less frequently purchased items. For both the 55th and 66th round the schedule for consumer expenditure survey are same and comparable. A very detailed item classification is adopted to collect information, including items of food, items of fuel, items of clothing, bedding and footwear, items of educational and medical expenses, items of durable goods, and other items. Items of expenditure on institutional health care includes medicine, X-Ray, ECG, pathological tests, doctor's/surgeon's fee, hospital and nursing home charges and other medical expenses are collected for a reference period of one year but for non-institutional health care expenditure the reference period is last 30 days. Further for each household member, details about age, sex, marital status, educational level and occupation are also collected. The sampling designs adopted in both the rounds of NSSO surveys are multi-stratified sampling and were comparable.

Methods

Descriptive statistics and bivariate analysis are used to describe the characteristics of individuals and to assess whether gender disparity exists in health expenditure. Health expenditures of the household are first allocated to its members taking into consideration the age of the members. A cubic function is employed for allocation of household health expenditure to individual members. Gender inequality in the distribution of health expenditure is measured with the Theil Decomposition Indices (1967). The Theil index's main attraction lies in its' decomposability that estimates the contribution of different groups to total inequality.

The Theil index is given by:

$$T = \sum_{i=1}^m \sum_{j=1}^{n_i} \left(\frac{y_{ij}}{Y}\right) \log\left(\frac{y_{ij}/Y}{1/n}\right) = \frac{1}{n} \sum_{i=1}^m \sum_{j=1}^{n_i} \left(\frac{y_{ij}}{\mu}\right) \log\left(\frac{y_{ij}}{\mu}\right), \quad (1)$$

Where, m = total population in all households, y_{ij}= per capita health expenditure of household j in group i(i=1, 2,, m; j=1, 2,, n_i); n_i= total number of households in group i (1i=1,2,.....,m); Y = (∑_{i=1}^m ∑_{j=1}^{n_i} y_{ij}) = total health expenditure of all households; n = (∑_{i=1}^m n_i) = total number of all households; and μ = (Y/n) = mean per capita expenditure for all households.

The Theil index T, as given in (1), can be decomposed into within-sex component and between-sex component as follows (Chowdhury, 2007):

$$T = \sum_{i=1}^m \left(\frac{Y_i}{Y}\right) T_i + \sum_{i=1}^m \left(\frac{Y_i}{Y}\right) \log\left(\frac{Y_i/Y}{n_i/n}\right) = T_w + T_B \quad (2)$$

where

Y_i = total expenditure of households in group i,

n_i = total number of households in group i.

Theil index L is given by:

$$L = \sum_{i=1}^m \sum_{j=1}^{n_i} \left(\frac{1}{n}\right) \log\left(\frac{1/n}{y_{ij}/Y}\right) = \frac{1}{n} \sum_{i=1}^m \sum_{j=1}^{n_i} \log\left(\frac{\mu}{y_{ij}}\right) \quad (3)$$

This index can also be decomposed additively into the within-sex component and the between-sex component as given below (Chowdhury, 2007):

$$L = \sum_{i=1}^m \left(\frac{n_i}{n}\right) L_i + \sum_{i=1}^m \left(\frac{n_i}{n}\right) \log \left(\frac{n_i/n}{\bar{y}_i/Y}\right) = L_W + L_B \quad (4)$$

Results

Table 1 presents some broad statistics for the two surveys. The total number of individuals in 1999-2000 is 600016 of which 311081 are males and 288935 are females. For the period 2009-10 the data set comprises of 468551 individuals and 241277 males and 227274 females. The table shows that the mean household health expenditure has increased over time for both the males and females. However, the gap among them is quite incessant in both the surveys. In 1999-2000 the gap in mean household health expenditure between males and females is Rs.66, meanwhile, in 2009-10 is Rs.137. The increased gender gap in mean household health expenditure over the period indicates the persistence of gender disparity.

Table 1: Descriptive statistics by gender at two points of time, 1999-2000 & 2009-10

Gender	1999-2000			2009-10		
	No. of individuals	Mean household health expenditure (Rs.)	Coefficient of variation	No. of individuals	Mean household health expenditure (Rs.)	Coefficient of variation
Male	311081	156	1.95	241277	367	5.06
Female	288935	90	1.50	227274	230	3.71
All	600016	169	1.86	468551	384	5.32

Gender gap in health expenditure in 1999-2000 and 2009-10 is shown in Figure 1. As regards the health expenditure males are more privileged than females since expenditure on males is substantially high in both the surveys. Out of the total health expenditure, 68.8 percent is spent on males and 31.2 percent spent on females in 1999-00. In 2009-10 the expenditure on females has declined by 10 percent than the first survey period, and for males the expenditure has increased to 79.4 percent which indicates a wide difference between males and females at the two time points.

Figure 1: Gender differences in health expenditure in India at two points of time, 1999-2000 & 2009-10

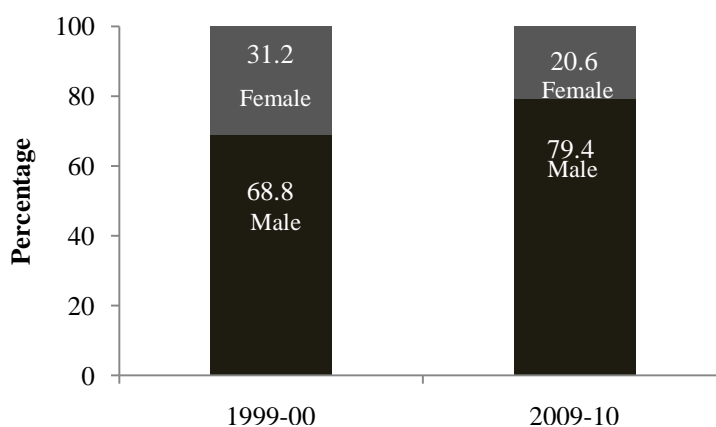


Table 2 portrays the scenario of gender gap in household health expenditure by states over time. In both the surveys gender gap is importunate and the gap has become wider over time as the male to female ratio in mean health expenditure has increased twice over time. In the states like Haryana, Madhya Pradesh, Gujarat, Punjab, Rajasthan, Kerala, and Delhi the male to female ratio in mean health expenditure is substantially higher than the other states. The findings indicate that gender is an important factor explaining the inequality in health expenditure in India and all its states.

Table 2: Health expenditure difference by gender and states at two points of time, 1999-2000 & 2009-10

States	1999-00			2009-10		
	No. of individuals		Gender gap in mean health expenditure	No. of individuals		Gender gap in mean health expenditure
	Male	Female	Male Female Ratio	Male	Female	Male Female Ratio
Andhra Pradesh	19759	19365	1.6	6805	6721	2.6
Arunachal Pradesh	2800	2467	1.4	1439	1344	2.5
Assam	12041	10601	1.4	3224	2739	2.5
Bihar	27275	24598	1.3	10062	9122	2.3
Goa	1128	1055	1.6	302	291	1.2
Gujarat	13353	12309	1.8	5021	4581	3.4
Haryana	5489	4745	1.8	2648	2399	3.2
Himachal Pradesh	5689	5533	1.5	1848	1894	1.9
Jammu & Kashmir	7106	6251	1.5	2355	2131	2.2
Karnataka	13083	12291	1.6	4963	4730	2.0
Kerala	10373	11066	1.6	2639	2933	3.4
Madhya Pradesh	23379	21512	1.8	7557	6958	3.3
Maharashtra	23123	21448	1.8	9682	9038	2.6
Manipur	3801	3718	1.4	2954	2895	2.3
Meghalaya	3288	3286	1.3	1814	1776	2.3
Mizoram	3282	3163	1.5	1580	1541	2.0
Nagaland	1865	1678	1.6	1864	1733	2.4
Orissa	10934	10685	1.4	4987	4663	2.4
Punjab	10867	9547	1.9	3413	3027	2.7
Rajasthan	15188	13992	1.7	6249	5898	2.6
Sikkim	3395	2949	1.3	1288	1240	2.2
Tamil Nadu	17016	16893	1.6	5198	5280	2.0
Tripura	3850	3411	1.3	2638	2420	1.6
Uttar Pradesh	43052	39396	1.7	15726	14475	2.6
West Bengal	19660	17909	1.5	8077	7449	2.5
Delhi	3223	2642	2.7	1351	1154	3.6
India	311081	288935	1.7	241277	227274	1.6

Table 3 depicts the results of Theil decomposition analysis applied to assess the gender inequality in health expenditure in India. The inequality is measured by Theil's T and Theil's L index as both Theil's T and Theil's L are decomposable. The difference between them is based on the part of the outcomes distribution that each is used for. Theil's L is more sensitive to differences at the lower end of the distribution and Theil's T is more sensitive to differences at the top of the distribution. The table reflects that the between group component explaining 4.5 percent of total inequality by the Theil index L, which indicates that gender is an important factor behind explaining inequality in health expenditure for the period 1999-00. However, for the period 2009-10, the between group contribution to the total inequality is more persistent than the previous survey. Nevertheless, the between group contributions to

total inequality increased from 4.5 percent to 7.9 percent by Theil L indices over time. At the same time the between group component explaining 3.8 percent of total inequality by the Theil T index and the inequality has increased to 5.1 percent in 2009-10. Findings from the table indicate substantial gender difference in health expenditure at the lower end as well as upper end of the distribution with a significant increase in the difference over the period.

Table 3: Inequality decomposition by gender at two points of time, 1999-2000 & 2009-10

Gender	1999-2000				2009-10			
	Theil T	Theil L	GE(-1)	Gini	Theil T	Theil L	GE(-1)	Gini
Male	0.657	0.564	2.390	0.539	1.198	0.928	2.193	0.687
Female	0.324	0.363	1.823	0.419	0.822	0.526	0.961	0.530
All	0.571	0.501	2.211	0.506	1.169	0.834	1.762	0.662
Within group	0.549	0.479	2.187		1.110	0.768	1.688	
(% share)	96.2	95.5	98.9		94.9	92.1	95.8	
Between group	0.022	0.023	0.024		0.060	0.066	0.074	
(% share)	3.8	4.5	1.1		5.1	7.9	4.2	

While inequality in healthcare expenditure in different states of India comes into the scenario, it is evident from Table 4 that between group inequalities in all the states has significantly increased over time. In all the Northern states like Haryana, Jammu & Kashmir, Himachal Pradesh and Punjab inequality in health expenditure is significant in both the surveys. However, the between group inequality has noticeably increased over the period. Haryana is a state with the lowest sex ratio where the inequality has tremendously increased over time. For Haryana, Theil T index explains the increase in inequality from 4.2 to 7.6 percent and Theil L index elucidates the increase from 4.6 to 11.2 percent. Also in Himachal Pradesh the increase in between group inequality over the period explained by Theil L index is 7.4 percent. The inequality has substantially increased in Punjab from 5.9 to 6.6 percent for Theil T and from 7 to 9.1 percent for Theil L index. Equally, in Jammu & Kashmir the between group inequality in healthcare has substantially raised from 1999-2000 to 2009-2010, as the inequality has increased from 4 to 7.7 percent by Theil T index, and from 4.5 to 9.9 percent by Theil T index.

The between group contribution to the total inequality is significant in all the states belonging to Western region for the period 1999-00 and has considerably increased over time. Consequently, in Goa, Maharashtra and Gujarat the between group inequality in healthcare expenditure has increased by 8.6 percent, 3 percent and 4.5 percent respectively over the period by Theil L index. In all the Eastern states like Bihar, Odisha and West Bengal, the between group inequality has considerably increased over the period. Madhya Pradesh is in the Central region of India, where the between group contribution to the total inequality has raised from 5.2 to 9 percent and 5.6 to 10.7 percent respectively by Theil T and Theil L index from 1999-00 to 2009-10. Over the period Gender inequality in health care expenditure has increased in most of the North-Eastern states like Arunachal Pradesh (1.7 to 7.2 percent), Meghalaya (2.6 to 3.9 percent), Manipur (3.5 to 8.6 percent), Mizoram (3.9 to 11.1 percent), Nagaland (4.2 to 8.4 percent) and Tripura (1.4 to 14 percent) for Theil L index and for Theil T index the between group inequality has increased substantially in all the states.

In all the Southern states like Andhra Pradesh, Karnataka, Tamil Nadu and Kerala the inequality in health expenditure is more persistent in 2009-10 than the preceding survey. In Andhra Pradesh the between group contribution to the total inequality has increased from 4.2 to 6.5 percent by Theil T index and from 4.2 to 8.1 percent by Theil L index. Likewise, in

Karnataka and Kerala the between group inequality has significantly increased from 3.6 to 6.1 percent and from 2.7 to 7.9 percent respectively over time by Theil T index. For the same states the between group contribution to the total inequality has increased from 4.3 to 7.3 percent and 3.1 to 11.4 percent respectively during 1999-2010. Similarly, gender inequality in health expenditure is importunate in Tamil Nadu as in other Southern states, where the inequality has increased from 4.4 to 10.6 percent over time by Theil L index. The findings reveal that in all the states the between group contribution to the total inequality in healthcare expenditure is high and has increased over time, which signifies that gender is an important factor explaining total inequality in health expenditure.

Table 4: Inequality decomposition by gender in different states of India at two points of time, 1999-2000 & 2009-10

States				% share	% share			% share	% share
		Male	Female	within group	between group	Male	Female	within group	between group
Andhra Pradesh	Theil T	0.467	0.252	95.8	4.2	0.765	0.442	93.49	6.5
	Theil L	0.471	0.310	95.8	4.2	0.681	0.396	91.87	8.1
	GE(-1)	3.466	1.889	99.3	0.7	1.224	0.577	94.60	5.4
	Gini	0.485	0.379			0.607	0.473		
Arunachal Pradesh	Theil T	0.567	0.289	98.4	1.6	1.310	0.621	95.49	4.5
	Theil L	0.520	0.355	98.3	1.7	0.994	0.429	92.78	7.2
	GE(-1)	1.356	1.398	99.4	0.6	1.926	0.534	94.96	5.0
	Gini	0.511	0.419			0.714	0.495		
Assam	Theil T	0.366	0.228	97.8	2.2	1.285	0.765	98.35	1.6
	Theil L	0.419	0.302	98.0	2.0	1.128	0.936	98.08	1.9
	GE(-1)	2.297	1.645	99.6	0.4	2.986	3.320	99.32	0.7
	Gini	0.439	0.373			0.728	0.651		
Bihar	Theil T	0.422	0.243	98.4	1.6	1.247	0.870	98.92	1.1
	Theil L	0.410	0.289	98.4	1.6	0.852	0.651	98.39	1.6
	GE(-1)	1.720	1.435	99.6	0.4	1.964	1.171	99.20	0.8
	Gini	0.455	0.378			0.661	0.593		
Goa	Theil T	0.517	0.309	96.8	3.2	1.396	0.597	93.39	6.6
	Theil L	0.591	0.346	97.0	3.0	0.973	0.472	88.36	11.6
	GE(-1)	2.226	0.775	99.0	1.0	1.982	1.094	93.40	6.6
	Gini	0.533	0.417			0.706	0.500		
Gujarat	Theil T	0.578	0.252	93.6	6.4	1.358	0.319	92.84	7.2
	Theil L	0.553	0.322	92.8	7.2	1.096	0.423	88.34	11.7
	GE(-1)	2.399	1.496	98.2	1.8	3.740	1.420	95.29	4.7
	Gini	0.532	0.383			0.717	0.429		
Haryana	Theil T	0.536	0.339	95.8	4.2	1.067	0.440	92.43	7.6
	Theil L	0.516	0.358	95.4	4.6	0.882	0.367	88.77	11.2
	GE(-1)	0.906	1.010	97.7	2.3	2.098	0.612	93.45	6.6
	Gini	0.530	0.424			0.671	0.443		
Himachal Pradesh	Theil T	0.486	0.320	96.8	3.2	0.945	0.450	92.53	7.5
	Theil L	0.466	0.422	96.9	3.1	0.806	0.374	89.48	10.5
	GE(-1)	1.272	2.568	99.3	0.7	1.514	0.579	92.90	7.1
	Gini	0.484	0.423			0.653	0.459		
Jammu & Kashmir	Theil T	0.563	0.248	96.0	4.0	0.781	0.406	92.32	7.7
	Theil L	0.498	0.342	95.5	4.5	0.717	0.355	90.08	9.9
	GE(-1)	1.198	1.924	98.7	1.3	1.368	0.611	93.72	6.3
	Gini	0.510	0.383			0.619	0.437		
Karnataka	Theil T	0.669	0.319	96.4	3.6	0.701	0.326	93.89	6.1
	Theil L	0.563	0.362	95.7	4.3	0.661	0.334	92.69	7.3
	GE(-1)	1.679	2.014	98.9	1.1	1.187	0.631	95.49	4.5
	Gini	0.540	0.412			0.597	0.412		
Kerala	Theil T	0.574	0.401	97.3	2.7	1.017	0.640	92.14	7.9
	Theil L	0.485	0.396	96.9	3.1	0.893	0.421	88.60	11.4
	GE(-1)	0.980	1.093	98.7	1.3	2.181	0.668	93.37	6.6
	Gini	0.510	0.446			0.669	0.470		
Madhya Pradesh	Theil T	0.558	0.300	94.8	5.2	0.671	0.371	91.01	9.0
	Theil L	0.544	0.362	94.4	5.6	0.672	0.355	89.31	10.7
	GE(-1)	3.024	2.944	99.1	0.9	2.180	0.840	95.59	4.4
	Gini	0.526	0.413			0.588	0.413		

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States				% share	% share			% share	% share
		Male	Female	within group	between group	Male	Female	within group	between group
Maharashtra	Theil T	0.721	0.458	95.1	4.9	0.754	0.346	92.73	7.3
	Theil L	0.640	0.392	93.9	6.1	0.700	0.345	91.04	9.0
	GE(-1)	1.833	1.148	97.7	2.3	2.089	0.827	96.20	3.8
	Gini	0.578	0.446			0.603	0.418		
Manipur	Theil T	0.334	0.206	96.5	3.5	0.814	0.606	92.52	7.5
	Theil L	0.339	0.241	96.5	3.5	0.878	0.477	91.37	8.6
	GE(-1)	0.736	0.505	98.3	1.7	2.167	0.805	95.37	4.6
	Gini	0.425	0.350			0.654	0.503		
Meghalaya	Theil T	0.386	0.210	97.5	2.5	0.842	0.429	96.90	3.1
	Theil L	0.346	0.249	97.4	2.6	0.720	0.399	96.07	3.9
	GE(-1)	0.671	0.711	98.8	1.2	1.512	0.869	97.97	2.0
	Gini	0.435	0.350			0.615	0.450		
Mizoram	Theil T	0.462	0.374	96.1	3.9	0.652	0.317	90.76	9.2
	Theil L	0.464	0.417	96.1	3.9	0.625	0.319	88.92	11.1
	GE(-1)	1.134	1.494	98.7	1.3	1.171	0.558	93.05	6.9
	Gini	0.495	0.438			0.580	0.408		
Nagaland	Theil T	0.377	0.237	95.2	4.8	0.789	0.402	93.71	6.3
	Theil L	0.441	0.323	95.8	4.2	0.703	0.333	91.63	8.4
	GE(-1)	2.147	2.014	99.2	0.8	1.234	0.471	94.04	6.0
	Gini	0.462	0.372			0.617	0.426		
Odisha	Theil T	0.383	0.218	97.6	2.4	1.167	0.627	95.94	4.1
	Theil L	0.404	0.271	97.7	2.3	0.937	0.486	94.15	5.8
	GE(-1)	3.350	2.516	99.7	0.3	3.239	1.099	97.76	2.2
	Gini	0.453	0.360			0.677	0.503		
Punjab	Theil T	0.576	0.325	94.1	5.9	0.943	0.462	93.38	6.6
	Theil L	0.512	0.335	93.0	7.0	0.796	0.396	90.91	9.1
	GE(-1)	0.851	0.680	95.9	4.1	1.597	0.773	94.74	5.3
	Gini	0.533	0.419			0.646	0.458		
Rajasthan	Theil T	0.488	0.262	95.9	4.1	0.972	0.580	93.50	6.5
	Theil L	0.488	0.313	95.8	4.2	0.882	0.486	91.40	8.6
	GE(-1)	1.410	1.279	98.7	1.3	2.429	1.078	96.03	4.0
	Gini	0.506	0.397			0.658	0.488		
Sikkim	Theil T	0.377	0.245	97.9	2.1	1.285	1.635	94.56	5.4
	Theil L	0.448	0.304	98.2	1.8	1.142	0.835	92.07	7.9
	GE(-1)	2.280	1.045	99.6	0.4	2.569	1.250	95.40	4.6
	Gini	0.454	0.370			0.743	0.663		
Tamil Nadu	Theil T	0.483	0.271	95.8	4.2	1.057	0.552	92.95	7.1
	Theil L	0.471	0.318	95.6	4.4	0.843	0.422	89.43	10.6
	GE(-1)	1.143	1.112	98.4	1.6	1.742	0.586	93.05	6.9
	Gini	0.498	0.392			0.663	0.489		
Tripura	Theil T	0.287	0.227	98.4	1.6	1.295	0.390	91.86	8.1
	Theil L	0.318	0.287	98.6	1.4	0.978	0.330	86.04	14.0
	GE(-1)	0.816	0.827	99.5	0.5	2.293	0.505	90.97	9.0
	Gini	0.395	0.372			0.705	0.425		
Uttar Pradesh	Theil T	0.673	0.299	95.7	4.3	0.831	0.622	97.72	2.3
	Theil L	0.597	0.378	95.1	4.9	0.829	0.552	97.47	2.5
	GE(-1)	2.628	1.691	98.8	1.2	1.589	0.693	98.38	1.6
	Gini	0.551	0.420			0.647	0.556		
West Bengal	Theil T	0.471	0.297	96.9	3.1	0.761	0.280	92.97	7.0
	Theil L	0.444	0.377	96.9	3.1	0.672	0.260	90.05	9.9
	GE(-1)	1.195	2.088	99.2	0.8	1.711	0.368	94.29	5.7
	Gini	0.475	0.412			0.585	0.356		
Delhi	Theil T	1.520	0.343	92.1	7.9	1.546	1.106	99.95	0.1
	Theil L	1.167	0.359	86.4	13.6	0.875	0.835	99.92	0.1
	GE(-1)	3.661	2.262	95.6	4.4	1.355	1.187	99.95	0.1
	Gini	0.755	0.441			0.671	0.669		

Summary and Conclusion

This Paper has endeavored to study the aspect of gender inequality situation in household health expenditure over time and provides a complete understanding on the gender disparity in health care expenditure in India and its states. It is evident that gender disparity is

quite persistent in health expenditure in both the surveys. Though, per capita expenditure on women has increased over the period, a huge disparity in the distribution is seen among men and women over time. In 1999-00 out of the total health expenditure, 30 percent is spent on women, which has declined to 21 percent in 2009-10. The male to female ratio in healthcare expenditure is high in all the states of India and has increased over the period. In Haryana, Madhya Pradesh, Punjab, Rajasthan, Gujarat, Delhi and Kerala, the ratio has substantially increased from 1999-00 to 2009-10.

The findings from Theil Decomposition in the study suggest that gender gap in health expenditure is significant and the gap has become wider in India over time. The findings also indicate that gender disparity in health expenditure between men and women is persistent at two point of time in the states of India and has substantially increased over the period. In most of the Northern states like Haryana, Jammu & Kashmir, Himachal Pradesh, Punjab and Uttar Pradesh inequality in health expenditure is significant in both the surveys and has considerably increased in 2009-10 than the preceding survey. Likewise, in Goa, Maharashtra and Gujarat which belong to Western part of India follow the same pattern of inequality over the period. It is noticeable that all the Southern states like Andhra Pradesh, Karnataka, Tamil Nadu, Kerala and Eastern states like Bihar, Odisha and West Bengal pursue the similar pattern of gender inequality in health expenditure as of the other states. Madhya Pradesh is the Central region of India, where the inequality between men and women in terms of healthcare expenditure has increased largely from 1999-00 to 2009-10. Thus it may be said that gender is a vital issue explaining inequality in household health expenditure in India and its states.

Various studies indicate that health expenditure in households is negligible as compared to other expenditures. Despite this, gender discrimination is a major issue in all over India for which women are less privileged in all aspects particularly healthcare. Women usually have higher life expectancies than men due to biological and behavioral factors. Moreover, women's greater longevity often does not translate into healthier lives in many developing countries; women experiencing pregnancy and childbirth are habitually unable to access maternal health care due to discriminations in gender norm in the society. Looking to the scenario, the present paper suggests that Government should implement policies to reduce inequality, improving the social status and to meet the healthcare needs of this vulnerable group.

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