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Gender Health Inequalities in South Asia: A Case for Higher Public Health Expenditure

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ABSTRACT

Global Gender Gap rankings for the South Asian region have declined between 2018-2023. Furthermore, ranking the four sub-indices in the global gender gap index also shows a deteriorating trend. The lowest gender gap is in the health and survival sub-index, and the highest gender gaps are in economic participation and opportunities. Nevertheless, the highest rank decline is for the sub-index health and survival. Life expectancy and mortality rates are the two indicators included in this subindex, and they have shown substantial improvement over time. On the contrary, malnutrition and anaemia for women in South Asia have been increasing. Despite the low per capita income levels, the out-of-pocket health expenditures range between 50 to 70 per cent of the total health expenditure in these countries. In this context, this paper investigates the impact of public health expenditure on selected health outcomes for women. The panel regression results show that between 1998-2022, public health expenditure significantly reduced the mortality rates. The reduction has been more in the case of male mortality, whereas the impact of public health expenditure on women's malnutrition and anaemia has been low and insignificant. Moreover, private health expenditures have a larger significant impact on all health outcomes. The paper concludes that more decentralised allocation for primary health expenditures is required to improve women's access to public health provisions and, therefore, health outcomes.

1. Introduction

Are gender inequalities in health a major challenge for sustainable development? Does increasing public health expenditures significantly reduce women's health inequalities in South Asia? The question is relevant in the context of increased health allocations falling far from sufficient to manage the ever-increasing health gaps for women (WHO 2024). The World Health Organisation emphasise that gender inequality and discrimination against women in all age groups increases the health and well-being risk. Moreover, income disparities and social status aggravate their vulnerabilities. Hence, the higher the per capita public health expenditure, the better the women's health. No doubt public health allocations have risen substantially over the last three decades, and women's health parameters have been improving. Maternal Mortality rates have substantially reduced, and women generally have higher life expectancy than men. Gender inequality in health has been an established research question for the last three decades (Moser, 1989; Vlasoff, 1994; Okojie, 1994). However, the argument has shifted from the social status of women and the reproductive role of females to poverty, income disparity and systemic bottlenecks in women's choices and opportunities. Moreover, South Asia needs to allocate more funds for gender inequalities as they have fewer life advantages and are more vulnerable to health hazards (Fikree & Pasha, 2004; Filmer, Elizabeth & Pritchet, 1998; Tebaldi & Bilo, 2019). As the countries approach the SDG Agenda 2030, the focus is more on gender health inequities. Gender inequality prevails because of socio-economic discrimination at various stages of the life cycle and the marginalisation of women in society. It exists when the incidence of diseases and access to health care differ systematically not only between men and women only, but also among women. It is confirmed if we take the mortality rate as evidence for this question. Men, regardless of income or location, suffer higher mortality because of injuries, hazardous consumption habits, and non-communicable diseases. On the contrary, mortality rates due to lack of safe water, sanitation and hygiene facilities are higher among females of low-income and rural households and low-literacy households. Further, the prevalence of malnutrition and anaemia is severe for women. Violence and crime against women have always been higher for low-income and disadvantaged households. (Sen & Östlin, 2008; Crespí-Lloréns et.al. 2021; Khan et.al. 2023) Gender health is indeed a policy challenge as it costs the prosperity and living standards of the economy. The World Health Organisation defines health inequities as systemic differences in access to health provisions, unequal distribution of health resources and unequal health status after public interventions. Inequities are due to the lack of policy focus on women-specific issues, such as health, education, or economic participation. Women are considered secondary resource owners or decision-makers and are prone to unfair treatment in different social settings. Gender inequity traditionally stemmed from violence, low education, and unpaid labour and with technology-induced globalisation, the marginalisation is changing its form to a double burden of care and economic empowerment. Women's health issues are no longer limited to reproductive health but have expanded to malnutrition and lifestyle diseases. It is revealing that in developing and low-income countries, out-of-pocket health expenditures are way higher than public health expenditures (Esteban & Roser, 2017). For Instance, out-of-pocket health expenditure shares are below 40 per cent of total health expenditure for European countries while more than 50 per cent in South Asian and African countries. Therefore, public health expenditures have become more critical for achieving equitable health outcomes for women. This paper aims to discuss the gender health gaps and the impact of public health expenditure on female

mortality, malnutrition and anaemia levels in eight South Asian countries.

Theoretical and empirical research continuously discusses and debates several dimensions of gender inequality and inequity. Further, gender gaps are measured and ranked through various indices at the global level, such as the Health Inequality Monitor, Gender Gap, Gender Inequality Index, Gender Parity Index and Women Empowerment Index. These indices are measured annually by the World Health Organisation, World Economic Forum and UN Women. Walton & Schbley (2013), Mathers (2017), and Patwardhan et.al. (2023) have analysed various health gap indicators and established that women and girls have a higher morbidity burden while men and boys have a higher mortality burden. Morbidity burden is the accumulated risk or health hazard against well-being, which is higher among women because of pregnancy, childbirth, violence, and inadequate diet. While men have a higher mortality rate than women, the disease burden is disproportionately higher for women. The Demographic & Health Surveys compiled by the USAID suggest that women have a more immense burden of diseases. Very often, the diseases are primarily caused by infections, reproductive health complications, and ignored or untreated health problems at various stages. Even if we presume that men and women experience similar patterns of exposure to health hazards and incidence of diseases, their treatment and impact on economic productivity varies significantly. Moreover, the disability-adjusted life years (DALY) are lower for women. There are different reasons behind gender health inequalities. Men are likelier to get sick or injured because their jobs involve manual labour, outdoor work, and hazardous tasks. However, they have more access to and control over resources. Thus, they can access health services or health care more than women. Women live longer but may have more health problems because of childbearing and less access to healthcare (Cislaghi et al., 2020). Lancet studies establish that men are more prone to substance abuse, whereas women are more prone to physical violence. Women in different age groups have different vulnerabilities, making their health inequities severe (Kennedy et al., 2020). The female child faces less preference over the male children and then bears the fertility risks followed by deprivation and social neglect. Females also bear a more considerable burden of any shortfall of household income across age groups. Apart from the above-stated reasons, female health outcomes depend highly on public provisions because of their limited access to income and other family resources. Cultural practices, ownership rights, and economic participation are three factors that shape health inequities. Several socio-economic factors further influence women's unequal health access and outcomes. Education, income, employment, food security, political system, and health policies are significant factors. According to the World Health Organisation Health Inequality Monitor, how the health system is organised and implemented affects women's access to healthcare in any country. Therefore, different countries and societies will have disparities in health outcomes. Consequently, quality, equity, and dignity should be ensured in providing health services that are accessible and affordable to all.

Conceptual differences exist between gender gaps and gender inequalities (Gupta et.al 2019; Shang, 2022). Gender gaps are the observed differences in socio-economic opportunities. Gender inequality is the gender gap generated due to gender bias and unequal rights and opportunities. The gender bias and the strict social norms for women's freedom and opportunity lower the overall welfare in society. Further, gender biases misallocate human capital and investment, making women less productive and skilled. Moser. (1989) and Agarwal B. (2016) distinguished between practical and strategic gender needs. Practical gender needs are

related to basic amenities for daily living, including food, water, shelter, sanitation, security and ease of maintaining the family. Social protection programmes provide income support to women and help address practical gender needs. Strategic gender needs can remain unaffected even after social protection. Despite improving living conditions, traditional gender roles reinforce the unchanged strategic needs. Strategic needs are related to improvements in women's disadvantaged position in society and include issues such as legal rights, equal pay and domestic violence. To avoid harming women and to achieve gender equality in the long run, programmes should know both practical and strategic needs. Gender is insufficient for understanding inequity (Bates, Hankivsky, & Springer, 2009). Intersections of gender with other social hierarchies, such as income groups, races, social class, ethnicity, age, religion, location, mobility, education, wealth and assets, socioeconomic status, and alike, are critical determinants for inequity. The authors suggest that gender mainstreaming requires an integrated, relational approach to gender. The health needs of women vis-a-vis men, along with people of different sexual orientations, can be an appropriate way to understand health inequities.

Gender inequalities are vast and prominent in South Asia (Filmer et al., 1998; Boudet et al., 2018). Per capita income impacts education and health outcomes more significantly than gender gaps. The low impact is perhaps because of the wide variations in income, health and educational status across these countries. Male poverty rates are 14.7 percent compared to 15.9 percent female poverty rates. The regions also hold the second largest number of people living less than USD1.90 per day. The highest concentration of poor children, i.e., 50.5%, exists in South Asian countries like India, Bangladesh, Pakistan, and Afghanistan. Among the child population, 22.2 percent of girls and 20.1 percent of boys are poor (UN Women 2024). Country-specific studies illustrate that woman, children, and the elderly are highly prone to malnourishment across households because of their weak bargaining power and social barriers (Rama. et al., 2015; Tebaldi. & Bilo, 2019). Social safety provisions are crucial for addressing gender-specific risks in these countries. The analysis of selected non-contributory social protection programs (female education, poverty and empowerment) in South Asia reveals gaps in policymaking as they exhibit low gender sensitivity (Tebaldi. & Bilo 2019). Researchers have attempted to build the argument of crowding in private sector expenditure for cost-effective health care services through more extensive insurance coverage and focusing on curative and tertiary health care. In other words, a larger role for public expenditure. When the relationship between health outcomes and gender inequalities is analysed, there is always an argument for increasing budget allocations on primary health (Singh & Kumar, 2022; Arthur & Oaikhenan, 2017; Bergqvist et al., 2013) for countries which are lagging in the Sustainable Development Goals (SDGs) related to health and gender equality (SDG 4 & SDG 5). Given the limited fiscal space and worsening economic slowdown in the last five years, the most urgent question in the context of SDGs is the possibility of increasing expenditure allocations. An urgent follow-up question is that even if the expenditure allocation increases, the existing health gaps demand an even more considerable increase in public expenditure (Deshpande 2021; The Hindu 2021). As outlined in the GGGR 2023, South Asia has emerged as a critical region for increasing Health and Survival index gaps. There is a rising concern about expanding the private sector participation in the health care system and contracting the government's role as a provider of primary health care. Though the ultimate focus of health policies in each South Asian country is to improve access of primary health care for low-income populations, larger involvement of private insurance and medical service providers, along with political hindrances, are widening the health disparities as the budget

allocations are increasing in these countries (Zaidi et.al., 2017). In the last decade, there has been a growing focus on efficiency and outcome disconnect and, therefore, a need for rationalisation and reallocation regarding public health expenditures. Healthcare financing can be adequate when complemented with integrated efforts for domestic resource mobilisation and reforms in budgeting and public financial management systems. This argument is more prominent for targeting widespread health inequities in South Asia through disaggregated planning and specific budget allocations.

2. Materials and Methods

The brief literature review in the introduction indicates that public health expenditure affects women's health outcomes in different settings. Although there are fewer studies, including eight South Asian countries, that analyse the pattern of health expenditure and its impact on women's health outcomes, such as life expectancy, fertility, mortality, morbidity, nutritional status, anaemia and many more. Another critical research gap is the investigation of inequities in health access for women in South Asia.

Therefore, this paper explores the gender inequality and inequity aspect of health outcomes in South Asia. Gender inequality is analysed through changes in the Global Gender Gap (GGGR) rankings (published by the World Economic Forum) of eight South Asian countries between 2006 (first issue of GGGR), 2018 (pre-pandemic), 2022 and 2023 (post-pandemic). The purpose is to understand the paradox between the lowest gender gaps in health and the severe challenges in SDG 3 in South Asia. The question of gender health equity is examined by analysing the impact of health expenditure (public and private expenditures separately) on mortality rate, anaemia, and malnutrition prevalence. To achieve health and gender equality SDGs, countries that lag should significantly increase their primary healthcare budgets. Given the limited fiscal space and worsening economic slowdown in the last five years, the most urgent question in the context of SDGs is the possibility of increasing expenditure allocations. An urgent follow-up question is that even if the expenditure allocation increases, the existing health gaps require a targeted increase in health expenditure. Therefore, the overburden of out-of-pocket health expenditure is assumed to be an outcome of low public health expenditures in South Asia.

This paper uses World Health Statistics published by the WHO, World Bank open data and Global Gender Gap (GGGR) Reports published by the World Economic Forum. The null Hypothesis for the data analysis is the significant negative impact of per capita public and private health expenditure (in current $ PPP) on female mortality, malnutrition and anaemia during 1998-2022. The period is selected based on the consistent availability of time series data for all selected countries. The rationale for using the per capita health expenditure in PPP $ terms is to assess the effectiveness of health expenditure on health access. Access to health is critical for gender equity as it ensures the availability of health provisions. It also provides a comparison between countries. Moreover, total health expenditure does not appear to affect the selected health outcomes significantly. The paper uses the panel regression model with cross-section and period-fixed effects. Eviews 12 software package is used for the data analysis.

With the purpose of analysing the impact of health expenditures on gender health outcomes in eight South Asia countries, we use the Panel Regression Model. Panel Regression combines the cross section data (i.e, country-wise) and time series (across time). Here, we can stack and arrange the selected variables for each cross-section at different points in time. Hence, the same unit cross-section is measured at different times. So we have T periods (t = 1998, 1999,

2000,……., T i.e. 2023) and N (8), the number of countries (i = 1 Afghanistan (AFG), 2 Bangladesh (BANG), 3 Bhutan (BTN), 4 India (IND), 5Maldives (MALD), 6 Nepal (NPL), 7 Pakistan (PAK), 8 Sri Lanka (SL)). In this panel data we will have total observation units of N x T, i.e 8x25=208. If the sum unit time is the same for each individual, then the data is called a balanced panel. If the number of time units is different for each individual, it is called an unbalanced panel. In this paper, we have an unbalanced panel as the data availability in the case of Afghanistan and Maldives is not uniform as for other countries. This is one of the limitations of the panel results.

The generalised form of the Common Effect panel data regression equation is:

$$Y_{it} = \alpha + \beta^t X_{it} + \varepsilon_t$$

where N = Number of individuals or cross section and T is the number of periods. Y is the dependent variable, and X is the vector of the independent variable. E is the residual or error term of the panel regression. The generalised form of the Fixed Effect panel data regression equation is:

$$Y_{it} = \alpha + \beta^t X_{it} + \varepsilon_{it}$$

In the case of a fixed effect, we accept the difference between cross sections and use the dummy variable least square method.

The paper estimates six different Models. The independent variables are per capita government health expenditure (PCGHE), per capita private health expenditure (PCPHE), current health expenditure as percent of gross domestic product (CHE/GDP) and capital health expenditure (KHE/GDP) . Current health expenditure is exclusive of the capital health expenditure and, therefore, reflects the amount spent on the current provision (in other words, cost of provision) of health services. Capital health expenditure is an investment and long-term health expenditure. The first model takes female mortality per 1000 female population (FMR) as the dependent variable with a common effect. The second model takes female mortality per 1000 female population (MRFe) as the dependent variable with a section-fixed effect. The third model takes male mortality per 1000 male population (MRMa) as the dependent variable with a period-fixed effect. This mortality rate in the above three models includes mortality due to CVD, cancer, diabetes or CRD between the ages of 30 and 70, and also, mortality attributed to unsafe water, unsafe sanitation and lack of hygiene and mortality due to accidents and injuries. The fourth and fifth models take the percentage of the malnutrition population (Mal) as the dependent variable with cross-section and period fixed effect. The sixth model takes the prevalence of anaemia (Ana) as the dependent variable with a section-fixed effect. The selection of the fixed effect model is decided based on the chi-square value of the Hausman Test.

3. Results and Discussion

South Asian countries have consistently improved health outcomes in the last three decades. Sri Lanka and the Maldives are pioneer countries in major health outcomes, such as lowest mortality and fertility rates, higher life expectancy and favourable sex ratios, and higher access to public health provisions across population groups. Pakistan, Afghanistan and India, on the contrary, continue to be the laggards, particularly in terms of child and female health and, recently, in terms of lifestyle diseases. Access to public health services has a lot of disparities and inadequacies. Bhutan, Nepal, and Bangladesh have been faster-improving countries in the last decade (United Nations, 2023). South Asia shares 25 percent of the world's population. Gender disparities are more pervasive because of the low-income levels and social norms in all selected countries. SDG 3, i.e. Good Health and Well-being, is challenging for these countries.

Table 01. Mean Value (2000-2021) of Selected Health outcomes for South Asia

Countries	Sex Ratio (F/M)	Survival age	Maternal Mortality per Lakh	Women with Low BMI	Mal-nourished Population %	skilled birth %	Antenatal care coverage	Anaemic females %
Afghanistan	0.91	62.5	638	60.8	28.61	58.8	20.9	37.53
Bangladesh	0.91	71.9	173	53.3	13.98	52.7	36.9	35.83
Bhutan	0.96	71.6	183	26.5	0.00	96.2	85	41.28
India	0.91	70.1	145	28.7	16.77	81.4	51.2	53.52
Nepal	0.96	69.2	186	25	11.10	58	69.4	38.29
Pakistan	0.92	66.2	140	65	15.87	69.3	51.4	41.84
Sri Lanka	0.97	76.3	36	16.6	9.40	99.5	92.5	35.10
Maldives	1.01	79.8	57	0.0	0.00	98.3	93.45	53.52

(UNSDG, 2023; World Bank, 2023)

The maternal mortality ratio is above 100 per 100,000 live births, which is far from the target value of 3.4. Sri Lanka, Bhutan, and Maldives have successfully brought this ratio below 50. Similarly, progress on Neo-Natal Mortality and Under 5 Mortality has severe challenges before it can reach the target of 1.1 and 2.6 per 1000 live births in all except Sri Lanka and Maldives. Further, the prevalence of communicable and non-communicable diseases is also severe for women. In South Asia, the Maldives is the only country with a higher DALY for females due to effective health interventions and lower disease burdens. Table 1 summarises health outcomes targeted for women in eight South Asian countries. It highlights the inequities for women in terms of maternal mortality, coverage of ante-natal care and anaemia prevalence. Maldives and India have the highest prevalence of anaemia among females. Afghanistan, Pakistan and Bangladesh have the highest proportion of women with low body mass index (BMI).

Global Gender Gap report, annually published by the World Economic Forum since 2006, provides estimations for years required to cover the gender gaps in development outcome categorised into four sub-indices. Global Gender Gap rankings and index values are unweighted averages of inequality gap scores in four broad categories: (a) economic participation, b) political empowerment, c) health and survival, and d) education opportunities). Table-2 presents a comparative status of the overall Gender Gap and Health and Survival sub-index for 8 South Asian countries. Health and Survival subindex describes health differences between men and women. This is based on two indicators, viz, sex ratio and life expectancy. The first indicator is a mechanism to identify the phenomenon of "missing women", prevalent in countries with a strong son preference. The second indicator measures the life expectancy gap between women and men. The measure estimates years of healthy living by accounting for factors like violence, disease, and malnutrition. South Asia region has experienced a sharp deterioration in the ranking of the gender gap index and its sub-indices between 2018 and 2022 (GGGR 2022). Between 2006-2016, there was a gradual and continuous improvement in the Global Gender Gap index value from 0.59 to 0.66, followed by a decline upto 0.62 in 2022. However, the Global Gender Gap rankings (GGGR) have deteriorated between 2006 and 2022 across South Asian countries, excluding

Maldives. More importantly, out of four sub-indices, all countries, including Maldives and Sri Lanka, have experienced a sharp deterioration in health and survival. In other words, gender gaps in health and survival have worsened among South Asian countries. It is important to note that the largest closing of the gender gap has occurred in the health and survival index, but the highest decline in ranks is also in health and survival.

Table 02. Ranking and Index Values for Gender Gaps in South Asia

	Gender Gap Rank (index Value)	**Health & Survival Rank (index Value)**	**Gender Gap Rank (index Value)**	**Health & Survival Rank (index Value)**	**Gender Gap Rank (index Value)**	**Health & Survival Rank (index Value)**	**Gender Gap Rank (index Value)**	**Health & Survival Rank (index Value)**
	2006	2006	2018	2018	2022	2022	2023	2023
Sri Lanka	13 (0.7199)	1 (0.9796)	100 (0.676)	1 (0.980)	110 (0.670)	1 (0.980)	115 0.663	1 0.980
Bangladesh	91 (0.6269)	113 (0.9495)	48 (0.721)	117 (0.969)	71 (0.714)	129 (0.962)	59 0.722	126 0.962
India	98 (0.6010)	103 (0.9624)	108 (0.665)	145 (0.940)	135 (0.629)	146 (0.937)	127 0.643	142 0.950
Nepal	111 (0.5477)	111 (0.9531)	105 (0.671)	128 (0.966)	96 (0.692)	109 (0.965)	116 0.659	82 0.969
Pakistan	112 (0.5433)	112 (0.9506)	148 (0.550)	145 (0.946)	145 (0.564)	143 (0.944)	142 0.575	132 0.961
Maldives	99 (0.635)	128 (0.950)	113 (0.662)	144 (0.953)	121 0.962	138 0.956	124 0.649	121 0.962
Afghanistan					146 0.435	140 0.952	146 0.405	141 0.952
Bhutan	121 (0.642)	125 (0.966)	122 (0.638)	141 (0.690)	125 0.637	125 0.962	103 0.682	122 0.962

(WEF, 2023).

Among all the selected countries, Nepal has experienced a consistent improvement in reducing the gender gaps. The improvements are significant in rankings and marginal in index values from 2006 to 2023 for health and survival. There are multiple factors explaining this narrowing gender gap. Improvements in female literacy, food security, economic participation and better health provision are playing a major role along with unchanging or slightly deteriorating outcomes for the male population in Nepal. Sri Lanka appears to be one of the severe cases of increasing gender gaps, except for health and survival. It has been ranked as the country with complete gender equality in health and widening gender gaps in education and economic participation. Bangladesh is another interesting case with improved overall ranks but widening gender gaps in health and survival. India, Pakistan, Afghanistan and Bhutan have experienced a widening gender gap across indicators with very marginal improvements in comparison to other countries. A time-series investigation of these reports indicates that low and low-middle-income countries have observed widening gender gaps in economic participation and educational attainments, leading to declining global gender gap rankings since 2006.

The changes in the global gender gap and its sub-indices indicate that the progress for the selected countries lags behind other country groupings, such as Latin America and Central Asia. Reports by WHO, United Nations, and ADB have shown that female and child health vulnerabilities have worsened with Covid-19, despite increasing public expenditure on health provisions. For instance, excluding Sri Lanka and Bhutan, the percentage of the population having access to Antenatal care and institutional birth is 50- 60 per cent. This lower health access is one among many instances of gender inequalities as this affects the health care of women as well as children up to the age 0 to 5 years directly. Further, this becomes a critical factor in the progress towards Sustainable Development Goal 3 (WHO, 2013) because health expenditures in these countries are still at the lowest levels (3-5 per cent of their GDP levels as well as general government total expenditure, with two exceptions of Bhutan and Sri Lanka).

Table 03. Domestic general government health expenditure as a percentage of government total expenditure

	2019	2015	2011	2007	2005	2003	2002	2000
Afghanistan	3.87 (8.19)	2.01	2.19	2.61	3.37	5.46	1.21	(0.89)
Bangladesh	3 (18.63)	3.38	4.14	5.08	4.39	4.76	4.54	5.21 (28.69)
Bhutan	10.41 (73.57)	9.37	6.4	7.73	6.83	7.72	8.01	7.79 (80.17)
India	3.39 (32.79)	3.38	3.38	2.96	3.03	2.75	2.87	3.29 (23.54)
Nepal	4.03 (24.81)	5.15	4.87	5.18	6.25	5.52	6.1	4.25 (15.51)
Pakistan	4.92 (31.98)	3.74	3.16	3.44	3.71	3.78	5.93	5.88 (35.12)
Sri Lanka	9.25 (47.22)	8.4	7.95	9.33	10.14	10.38	10.37	10.14 (53.63)
Maldives	17.85 (79.99)	18.45	11.76	11.24	7.65	8.14	8.62	8.83 (33.14)

Note: figures in parenthesis are the domestic general government health expenditures as percentage to total health expenditures. General government health expenditures includes all levels of government, i.e. central, provincial and local (WHO, 2023).

Table 3 presents a country-wise comparison of the comparative view of domestic general government health expenditure as a percentage of government total expenditure and (as a percentage of total Health Expenditure) in the selected countries. Total health expenditures include public, private and externally funded health expenditures. More than 70 percent of health expenditure in Bhutan and Maldives is by the government. For Afghanistan, the government share is less than 10 per cent of the total current health expenditure. The share of public expenditure in the current health expenditure is declining, except for in the Maldives, India, and Nepal. This declining share of public expenditure results in a higher burden of out-of-pocket health expenditure, as presented in Figure 2. Again, Maldives and Bhutan have the lowest out-of-pocket health expenditure; Maldives has a significantly declining share of out-of-pocket health burden. All other countries have an above 50 per cent share of out-of-pocket health expenditure. This directly affects the access and utilisation of public health care provisions, specifically for women and child health care. The patterns in health outcomes and health expenditures reveal that over the years, the improvement in health outcomes has been significantly responsive to private health expenditures. Table 4 presents the panel regression results.

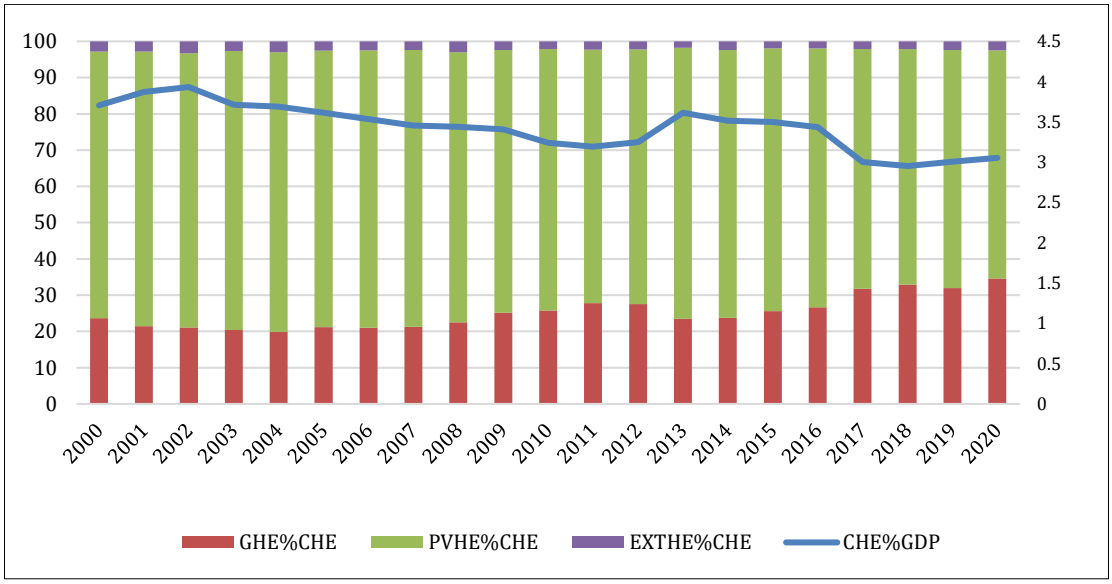

Figure 01: South Asia Current Health Expenditure and its Composition (WHO, 2023).

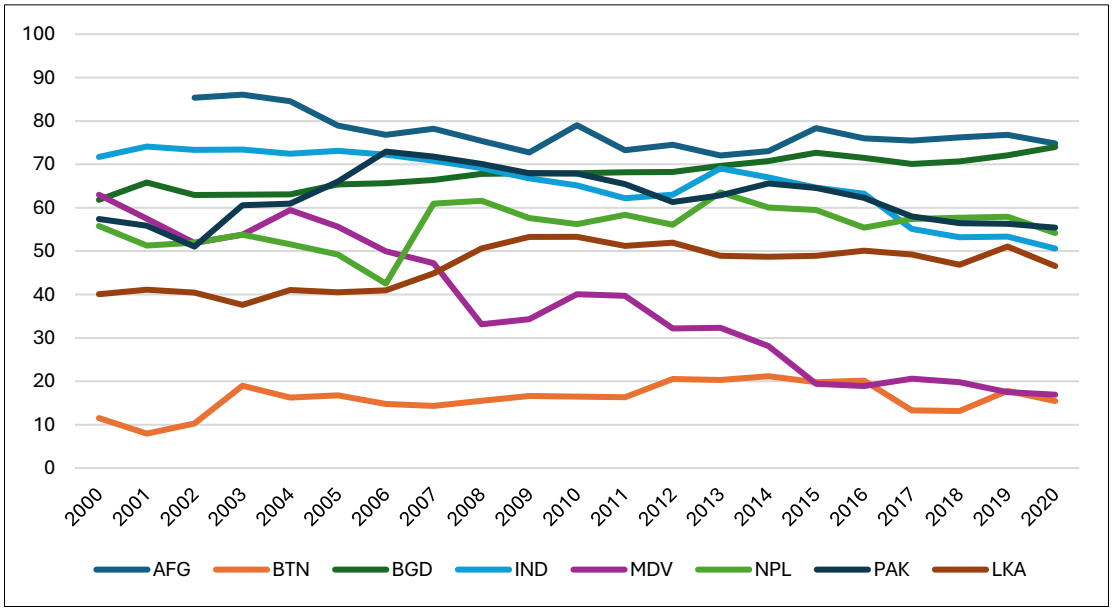

Figure 02: Out of Pocket Health Expenditure as % of Current Health Expenditure (20-2020) (WHO, 2023).

Table 04. Panel Regression Test for 8 South Asian Countries (1998-2022)

Independent Variables	Model-1 Mortality Rate Female Common Effect	Model-2 Mortality Rate Female Cross Section Fixed Effect	Model-3 MR Ma Period Fixed Effect	Model-4 Mal Fe Cross Section Fixed Effect	Model-5 Mal Fe Period Fixed Effect	Model-6 Ana Fe Cross Section Fixed Effect
Constant	115.0773*	167.605*	190.0536*	16.86*	11.26*	38.71*
lnPCGHE$	-0.0916* (-5.7093)	-0.0671* (-6.0266)	-0.0546* (-3.5022)	0.055*** (1.8612)	-0.0456*** (-1.8500)	0.002 (2.093
lnPCPHE$	-0.4056* (-7.2754)	-0.2491* (-3.7389)	-0.70422* (-13.3024)	-0.3274* (-7.4175)	0.0213 (0.2513)	-0.0314* (-4.534)
CHE/GDP	11.1691* (12.0739)	-1.3656 (-0.8268)	13.3102* (15.6765)	1.004* (2.828)	1.5866* (5.5700)	0.640* (3.4056)
KHE/GDP	13.9420** (2.2039)	14.0525** (2.4511)	-14.5438** (-2.5146)	4.9505* (2.18)	-5.3589** (-2.032)	1.6582* (2.889)
Adjusted R^2	0.747	0.887	0.868	0.841	0.676	0.924
F Statistic	106.8678	103.1099	40.482	65.270	77.270	155.59
Prob (F Stat)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
DW Test	0.259	0.578	0.484	0.298	0.298	0.1777
No. of Observations	208	208	208	208	208	208

significant at 1% level, **significant at 5% level and *** significant at 10% level. (t-statistic) is mentioned below the coefficient value. Authors calculation using Eviews 12.

The analysis results are presented through 6-panel models. All significant models are presented, as reflected by the F Statistic value (a probability value less than 0.05 makes the model results robust. The Chow and Hausman tests suggest that the common and fixed effect models are more significant than the random tests. The first model takes female mortality as the dependent variable. Results show that increased per capita health expenditure (public as well as private) has significantly reduced the female mortality rates. Private health expenditure substantially impacts mortality rate reduction more than public expenditure. Further, the cross-section fixed effects reveal a negative but insignificant impact of current health expenditure on female mortality. Another important result is the significant impact of public expenditure on female fertility compared to male mortality. In the case of male mortality, capital health expenditures as percent of GDP are also significant with a negative impact. Furthermore, in the case of female malnutrition (Model-4) and anaemia prevalence (Model-6), again, private expenditures are more significant, and public expenditures appear to be insignificant. The models also include current health expenditures (expenditures to maintain the provision of public health provisions) and capital health expenditures (new investments for upgrading the quality of health care), and both are insignificant for female health outcomes. The insignificant of current and capital health expenditures have been explained as the inadequacy, ineffectiveness and leakages in the public health provisions in several studies mentioned subsequently. Another reason is the rising cost of public health delivery and

the lack of infrastructure despite rising allocation. In Table 1, the low percentages of ante-natal care coverage and per cent of skilled birth are evidence of inadequate public health provisions and inequities in public health access for women in South Asia.

The results presented in the paper align with the studies focusing on developing Asia in general and South Asia in particular. Various categories of health expenditures create differential impacts on health outcomes for a panel of SAARC countries between 1993-2012 (Mohapatra, 2022). Out-of-pocket expenditures significantly influence life expectancy, whereas public health expenditures significantly affect female mortality rates. Moreover, the nature of public expenditure, such as current or capital, and socio-economic determinants also have proximal linkages with health outcomes. Further, a one percent increase in per capita health expenditures reduces the mortality rates by 0.07 percent in South Asia. Rahman et al. (2018) estimated a positive impact of health expenditures on health outcomes for a panel of 21 Asian countries. The study also finds a more substantial impact of private health expenditure on fertility and mortality rates. Li & Yuan (2019) investigated the impact of public health expenditure on health equity and mortality rates between 2000-2015 and found domestic government expenditure and externally financed health expenditure significant in reducing the mortality rates. Therefore, there has been a pervasive argument of public expenditure crowding in private sector expenditure for cost-effective health care services through more extensive insurance coverage and focusing on curative and tertiary health care.

With the increase in per capita income and awareness across South Asian countries, out-of-pocket health expenditures are rising, reflecting the demand for quality health provisions. Over the years, public provisions have suffered from absenteeism, delays, limited expansion and lack of utilisation (Deon, 2003; Gauthier & Wane, 2007; Escribano et al., 2022). This results in slow progress in mortality and malnutrition indicators, specifically for females. As outlined in the GGGR 2023, South Asia has been emerging as a critical region for increasing gaps in terms of Health and Survival in the world. Public Expenditure Tracking studies (Ostilin et al., 2011; Chakraborty et al., 2013; and Jain, 2020) have highlighted the absenteeism and leakages in public health programmes. Perhaps, diverting 60 to 80 percent of the budgeted allocations towards female, mother, and child health care provisions can be the second-best strategy for decreasing the gender gaps in health outcomes. Health outcomes are becoming dependent on awareness-led demand and a nominal increase in budget allocations. Private sector financing supported by public universal coverage programmes is the emerging solution for better health outcomes. Studies analysing the quantitative and qualitative dimensions of gender inequalities in health, education and employment have estimated the probabilities of improved health outcomes more with targeted allocations and gender mainstreaming policies (Banu, 2016; Witter et al., 2017; Zaidi et al., 2017; Choudhary & Mohanty, 2019; Kelly et al., 2020).

4. Conclusions and Recommendations

This paper analyses the gender health gaps in eight South Asian countries. Bhutan and Sri Lanka have far better health outcomes than the remaining six South Asian countries. Gender health gaps urgently need policy attention as South Asian countries are observing a decline in their global ranks in the health and survival sub-index. Private sector-financed and household-financed health expenditures surprisingly dominate the health expenditures in these countries. Nevertheless, there has been substantial progress in women's health outcomes across developing countries in the last two decades. South Asian countries, through their targeted policy interventions, have been progressing

towards achieving the targets set under the Good Health and Well-being (Goal 3) of Sustainable Development Goals Agenda 2030. Enhancing health outcomes in South Asia in line with achieving the health SDGs would require a sizable increase in health spending. Health spending in South Asian countries (excluding Bhutan, Maldives and Sri Lanka) has remained in the range of two to four percent of GDP since the 1990s (Figure 1), and out-of-pocket health expenditures are above 50 percent of the total expenditures excluding Bhutan. This is significantly below the levels of BRICS and EMEs (WHO, 2023). The low level of spending is reflected in the huge vast lag gaps in the availability of doctors, health care providers and hospital beds per 1,000 inhabitants. A need for doubling health spending or at least five percent of GDP is advocated occasionally. Nevertheless, the region has the worst inequities in gender outcomes. Women across different social categories, locations and livelihoods face larger discrimination and negligence. This creates inflexible choices and outcomes for their health, education, nutrition, and employment. Women, more often, have to choose between their family members versus their requirements to avoid conflicts. Reports on South Asia by UNICEF continuously emphasise that adverse gender norms aggravate the risk of violence and vulnerability for women.

Countries with higher levels of public expenditure, such as Bhutan and Maldives, have lower out-of-pocket expenses for primary health care. The panel regression results in this paper indicate a significant positive impact of public health expenditures and utilisation of public health provisions on female health outcomes. One percent increase in per capita public health expenditure s reduces the female mortality rates by 0.06 to 0.09 percent. However, an increase in per capita private health expenditure reduces the mortality rates by 0.24 to 0.42 percent. Further, public expenditure becomes less impactful in the case of anaemia and malnutrition in females. One percent increase in per capita private expenditure reduces the malnutrition prevalence by 0.3 percent while reducing the anaemia prevalence by only 0.03 percent. Therefore, the paper advocates for higher per capita allocations targeting women's health programmes compared to total health expenditures.

When aggregate health expenditures rise, health inequalities initially decline. However, in the medium to long term, the effective implementation of health programmes at the disaggregated levels emerges as a critical factor. (Kelly et al., 2020). Further, a comprehensive approach targeting nutritional deficiencies, maternal health, and gender inequalities is crucial in improving health outcomes rather than an absolute increase in health spending. In the case of India and Nepal, private sector health expenditure might be creating a larger impact on health outcomes as public expenditure has a significant and negative impact. These countries appear to have different levels of economic development; hence, different approaches to health systems result in varied impacts of public health expenditure on health outcomes. For instance, Sri Lanka and Bhutan have focused more on the traditional treatment system than India and Nepal. More importantly, a higher percentage of the rural population does affect health outcomes despite the levels of health expenditure.

Health is broadly seen as a merit good and considered as a public good for the poor and vulnerable. Health encompasses curative, preventive and promotive care (Wang F 2018; Wendimagegn & Bezuidenhout, 2019). Therefore, the World Health Organisation advocates for Universal Health Coverage as one of the major sub-targets in the SDG-3. The widely accepted definition of Universal health coverage (UHC) is a comprehensive set of *"essential health services, from health promotion to prevention, treatment, rehabilitation, and palliative care across the life course*" (Mcintyre et al., 2017) citation. Health inequities are the systematic

differences that exist because of the different social conditions of individuals. Social and demographic differences lead to varying health and healthcare access levels among people. Health inequities are unfair if individuals and societies have to bear the cost. An appropriate mix of public policies can reduce these costs. Governments can provide health care based on their budget (i.e. fiscal space), but how much they spend is also important. When discussing health policies, we must consider how much money we spend, how it has been spent, if it works, and the connection between personal and public health expenses. Higher public expenditure on health is a prerequisite for better living standards. Health and well-being are an integral component of living standards. Low levels of public health spending make health provisions difficult and disparately affect the health status of men and women. Low health spending can further lead to gender inequity and worsen the cross-sectional disparities.

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