

A COMPARATIVE ANALYSIS OF HEALTHCARE FUNDING SOURCES AND THEIR CONTRIBUTION TO OVERALL HEALTH AND WELL-BEING FOR SUSTAINABLE DEVELOPMENT

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ABSTRACT

Objectives: *The present study set out to investigate the following research question: "What is the healthcare spending pattern, and how does this evolving healthcare spending pattern contribute towards the achievement of SDG 3 in South Asian countries by 2030?"*

Methods: *This study highlights the funding sources for healthcare in South Asia and compares the percentage changes of several healthcare financing components with the compound annual growth rate (CAGR) from 2002 to 2019. The analysis of variance (ANOVA) and regression technique is used in this study.*

Results: *Expenditure on healthcare by the government has increased overall, although private, out-of-pocket, and external funding costs have dropped. Components of healthcare expenditure except OOPE has a positive and significant impact on life expectancy.*

Conclusion: *In South Asian countries, the growth rates of GHE, PHE, and OOPE have shown significant differences throughout time, as per the study.*

Keywords: Analysis of Variance, Government, Healthcare Funding, Regression, Sustainable Development.

INTRODUCTION

Public Goods have non-rival and non-excludable nature which allows an individual/person to use it without excluding others to use the same. Nobel Laureate Paul Samuelson is commonly credited with introducing the theory of public good to modern economics. Samuelson coined the term "*Collective consumption good*" where it is said that when one individual consumes a good it leads to no subtractions for consumption of the same good by another individual (Samuelson, 1954). A good is rivalrous if and only if one person's consumption reduces the ability of others to consume it. John Kenneth Galbraith defines public good as "*things that do not lend themselves to [market] production, purchase, and sale*". They must be available to everyone if they are to be made available to anyone or they will not be available at all. There are different public goods like security, science and education, infrastructure, environment, and health. Health is taken as an important public good and has more benefits to the population of a country (Kehr, et al., 2023). The WHO Assembly in 2005, urged member states to "ensure adequate and equitable distribution of good-quality health care infrastructures and human resources for health (Bärnreuther, 2023). People of a country if suffering from different diseases, can't contribute to its development. Economic growth is positively influenced by Investments in health sector. When people could live without experiencing health issues, economic growth and development would be greatly impacted. A healthy population accelerates productivity. Hence, more expenditure on the health sector should be made to fuel the growth of a country (Frankovic, 2023). Indicators of a healthy lifestyle include eating, abstaining from alcohol and tobacco use, avoiding unhealthy habits, drinking high-quality water, participating in sports, and having a sufficient income. The environment and a person's personality might affect their health as well. Making them participate in sports is the most effective strategy to ensure their good health.

Providing healthcare services to the people of a country is always challenging. There are different challenges like:

1. Infrastructure
2. Healthcare finance / financial limitations
3. Availability of a skilled workforce
4. Implementing new technology
5. The concerns of health equity
6. The move towards value-based care
7. The growing provider shortage

Among different dimensions of health systems (Jakovljevic, et al., 2019), A crucial component of the advancement of universal health coverage is healthcare funding, which enhances both financial security and efficient service delivery. To ensure access to affordable healthcare, various steps at the global, as well as country levels, are taken, like the inclusion of healthcare aspects in Millennium Development Goals or Sustainability Development Goals (SDG) set by the United Nations Organization in 2015 (Goal 3 in SDG). With the help of UHC programs, health services can be provided to the whole population (including the poor) and a significant reduction in out-of-pocket health expenditure can be achieved (Ranabhat, 2020). There are different ways of financing healthcare, like through government resources via allocation in the budget for healthcare by utilizing taxes and other sources. Health insurance is another way of financing healthcare in which the cost of an insured individual's or family's medical and surgical expenses are covered. One of the major sources of finances for healthcare is Out-of-pocket health expenditure that an individual spends by utilizing their resources (savings, borrowings, or selling household assets) for accessing health services (Bukatov & Gimranova, 2023). It has been observed that people are more dependent on their resources (Out-of-Pocket) for financing healthcare in comparison to government support. A transition of sources of healthcare financing has been observed in low and middle-income countries more towards government and private sources (Behera & Dash, 2020; Behera, et al. 2024).

In the absence of adequate government support people spend out of their pockets resulting in catastrophic health expenditures that drag them into poverty. Healthcare can also be financed using support from external agencies like the United Nations, and other countries' institutions. At the global level, some notable examples of very big nations, and the one developing fastest throughout the global South are the BRICS. These nations serve as models for emerging nations as their remarkable trends in health spending (Jakovljevic, et al. 2022). Provide important insights to follow. In many developing countries, governments struggle to mobilize enough money for paying healthcare. According to estimates, out-of-pocket (OOP) expenditures are an important component of health finance, particularly in countries with poor and medium incomes (Alsan, et al. 2015). It is anticipated to continue to be the primary source of funding for total healthcare expenditures (THCE) (Jahanmehr, et al., 2022).

In South Asian countries which are mostly developing, financing healthcare has always remained a challenge. In Sri Lanka government health expenditure in 2019 was 47.2221 percent (% of current health expenditure) and in 2000 it was 53.62961%. In India government health expenditure in 2019 was 32.78846 percent (% of current health expenditure) and in 2000 was 20.68014%. Similarly, in China, government health expenditure in 2019 was 55.97904 percent (% of current health expenditure) and in 2000 it was 21.97529%. The current study tries to understand and analyse the sources of finances used for healthcare in the South-Asian context. South Asian countries' primary sources of funding for healthcare are private resources and out-of-pocket spending. Due to inadequate government provision of health care, households are under a significant amount of financial strain (Zaidi, et al., 2017). Sources of healthcare finances have been classified into:

1. Government expenditure
2. Private expenditure
3. Out-of-pocket expenditure
4. External expenditure

REVIEW OF LITERATURE

The majority of wealthy nations strive to address the population's most basic health needs and increase their investments in healthcare. While undeveloped and developing countries struggle to offer their citizens quality medical care. Both Britain and Canada have single-payer systems in place. In Canada, both the private and public sectors contribute to the cost of health insurance (Gatrell & Elliott, 2014). The majority of healthcare costs—nearly 70% of them—are covered by the government. In Britain, all healthcare is provided by the government, which also established the National Health Service (NHS). The majority of the services are provided to the public without charge. A private system also coexists. The United States healthcare system is made up of private insurance, single-payer Medicare, state-administered, and private insurance (Squires & Anderson, 2015). Singapore's healthcare system is built on a distinct methodology. Primary care is accessible at the state-run hospital's wards and is provided at no cost; extra care is provided in private rooms for a fee. Additionally, the working class of Singapore pays roughly 37% of their income to required savings accounts, which are mostly used for social welfare programs like healthcare and education (Bai, et al., 2012). Singapore offers rather decent care to its population given the limited amount of money spent; however, some people contend that quality varies depending on whether a person is wealthy or not (Khoo, et al., 2014). Compared to many other healthcare delivery systems, France offers a wide range of services. In this context, purchasing health insurance, which is offered by small non-profit organizations and typically funded by taxes, is a requirement for everyone in France. Seventy to eighty percent of the expenditures in this respect are paid by public insurance. Voluntary health insurance may cover the remaining expense, making the out-of-pocket expense comparatively little. Nearly 95% of the population in France is protected by voluntary coverage. Budgets and resources are allotted by the Ministry of Health. In Australia, public hospitals offer free inpatient treatment, which includes having access to prescription medications and healthcare services. Private hospitals' accessibility as well as additional services not provided by the public health system is also made possible by the optional private health insurance system. Switzerland has a public healthcare program. Everyone is required to purchase insurance. The plan is mostly comparable to that of the United States under the Affordable Care Act, which is provided by private insurance firms with premiums that vary depending on features like the availability of expert consultations (Wilson, et al. 2015). Around 86% of all Germans are covered by the country's public health system; however, others elect to purchase voluntary private health insurance. Additionally, the government controls the costs of commercial health insurance, which can be costly for people with pre-existing conditions, but there are no subsidies available. The aforementioned facts make it clear that governments play a significant role in providing healthcare to the population with the support of private insurance arrangements in developed countries as well, and that these arrangements have also been found to be successful in boosting the use of healthcare services (Anderson, et al., 2012; Jan, et al., 2022; Maroof & Sangmi, 2021).

There cannot be a single model for the ideal healthcare system or a fix for all of the system's flaws ("Health Care Systems in Low- and Middle-Income Countries | NEJM," 2018). Countries with low-income where extending health services to the general masses is always a challenge, It is important to see the development of healthcare systems as a long-term process. In low-income countries, people typically pay for half of the cost of healthcare out of their own pockets, compared to 30% in middle-income countries and 14% in high-income ones (Giplaye, 2019). Additionally, insufficient financial protection for healthcare expenditures (Jakovljevic, et al., 2020) exposes 100 million population to live under poverty each year due to healthcare

payments, and for many others healthcare remains a dream. The nations and their development allies have been implementing innovative methods for funding and providing healthcare systems in response to such flaws in the overall healthcare system (Bloch 2020; Jan, et al. 2025).

There exists a dearth of literature targeting South Asian countries. A careful analysis of the literature highlights the significant relationship between the allocation of resources toward public health, the advancement of the economy, and the achievement of SDGs. So, it becomes essential to develop a more context-specific comparison of different components of healthcare expenditure in different South Asian economies and try to find out how investments in public health can effectively promote sustainable development in the South Asian region. Based on the above discussion following are the objectives of the study:

1. To analyze the disparities in the utilization of sources of healthcare finances in South Asian economies.
2. To review and compare the growth pattern of different components of healthcare expenditure in South Asian economies.
3. To compare the expenditure and income scenario in the healthcare sector in South Asian economies.
4. To find out the impact of different components of healthcare expenditure on Life expectancy in South Asian economies.

Based on the aim of the study, the present study sets a hypothesis to find out the differences in healthcare expenditure patterns of different income-based groups of South Asian Economies. So, the hypothesis for the present study is as follows:

H₀: A statistically significant difference exists among different components of healthcare expenditure across different income groups of South Asian Economies.

H₁: A statistically significant difference does not exist among different components of healthcare expenditure across different income groups of South Asian Economies.

Relevance of the Present Study

It is well recognized that the pattern of health expenditure is an important issue that can influence both national and international policy decisions. However, simply raising health spending is insufficient; factors such as price, consistency, and accessibility may affect how much they are utilized and—above all—how accessible they are to the population of the economy. For this reason, it is imperative to know the sources of health financing and healthcare expenditure patterns across different income groups in South Asian Economies. So, the present investigation was planned to investigate the following research question: “*What is the changing pattern of healthcare expenditure and how does this changing pattern in healthcare expenditure contribute towards achievement of SDG 3 in South Asian countries?*” The investigation of growth in the pattern of different components of the health expenditure variable would help policymakers in South Asian Economies to plan their strategies accordingly to achieve the sustainable development goal of achieving good health and well-being by 2030. Moreover, examining healthcare expenditure patterns in South Asian economies is extremely important, not only because health is an important determinant of economic growth, but also because poor health increases the gap between opportunities and actual income because it reduces the amount that a given income level can be converted into the ability to live a healthy and quality life.

DATA AND METHODS

The present research is descriptive as well as causal in nature. The study has made use of percentage change in healthcare in the year 2019 over the year 2002 with the help of the following formula:

$$\text{Change in health care expenditure (\%)} = (X_2 - X_1 / X_1 * 100)$$

X_1 = Health expenditure in 2002

X_2 = Health Expenditure in 2019

Further to examine the growth trends, the present study has calculated CAGR to compare the trends using the following formulas:

CAGR in HE = $(HE \text{ in } 2019) / (HE \text{ in } 2002)^{1/18} - 1$

Where, HE = Healthcare Expenditure

And CAGR = Compound Annual Growth Rate

For testing of the Hypothesis, the present study makes use of one-way analysis of variance (ANOVA). The formula for the same is as follows:

Where:

SSB stands for the *sum of squares between groups*

SSE stands for the *sum of squares of errors*

$\bar{X}_j - \bar{X}$ stands for the *mean of the jth group*,

$X - \bar{X}_j$ stands for the *overall mean*, and n_j is the *sample size of the jth group*.

X stands for *each data point in the jth group (individual observation)*

N stands for *total number of observations/total sample size*,

SST stands for *Total sum of squares* and is equal to the sum of SSB and SSE

The difference between the means of the two groups of the observed data set is not statistically significant if the value of F is close to 1.

Further to find out the impact of different sources of healthcare expenditure on life expectancy we used OLS the equation for the same is specified as given below:

$$Y_{it} = \alpha + \beta_1 X_{it} + \beta_2 X_{it} + \beta_3 X_{it} + \beta_4 X_{it} + \beta_5 X_{it} + \beta_6 X_{it} + \beta_7 X_{it} + \varepsilon_{it}$$

Where Y_{it} represents life expectancy at birth, ε_{it} is the error term and X_{it} represents other independent like Life expectancy at birth (*LNLE*), Out-of-pocket expenditure (% of current health expenditure) (*LNOOPE*), Domestic capital measured as (% of GDP) (*LNGFCF*), Gross domestic product measured as per capita GDP (current US\$) (*LNGDP*), External health expenditure (% of current health expenditure) (*LNEHE*), Domestic private health expenditure (% of current health expenditure) (*LNDPHE*), Domestic general government health expenditure (% of current health expenditure) (*LNDGGHE*), The institutional quality index (*IQI*) includes: (Voice and accountability, Political stability, Government effectiveness, Rule of law, Control of corruption, Regulatory quality) and the data has been taken from WDI, UNSD, and WGI.

RESULTS

The current study is an attempt to analyze financial sources utilized for healthcare by different South Asian countries. The above-discussed four sources of finances have been evaluated as a percentage of current health expenditure from 2002 to 2019.

Data from 2002 reveals that for certain countries like Bhutan and Sri Lanka, there has been more dependence on government finances in comparison to other countries. For the same period, the rest of the countries have been more dependent on private and out-of-pocket expenditures for financing healthcare. External expenditure has also been supportive for a few countries in the region during 2002 like Nepal, Bangladesh, and Afghanistan.

With time there has been a change in the financial sources utilized for healthcare. In some countries, the government has increased its expenditure on healthcare by starting new interventions for healthcare. Private organizations have also started to invest in healthcare by providing insurance and other facilities. Certain countries have experienced a rise in out-of-pocket health expenditures (Bangladesh, Bhutan, Nepal, and Sri Lanka). The reason is the

reduction of government expenditure on health.

A comparative analysis has additionally been done to study the change in the percentage contribution of different sources of finances out of current health expenditure. Table 1 reveals that the proportion of government expenditure in some countries has increased. Countries like Maldives, India, and Afghanistan experienced a rise in the proportion of government health expenditure. For example, in the Maldives, the government spent 29.03 % of current health expenditure in 2002 and increased the same to 79.30 percent in 2019. Similarly, for the above-mentioned period, India has increased government expenditure by 14.63 percent, which is evident from the number of healthcare interventions made by the government like Ayushman Bharat and other programs launched by the government. There are few countries like Bangladesh, Pakistan, and Sri Lanka where there has been a fall the government health expenditure in the year 2019 when compared with 2002.

Over some time, the proportion of private health expenditure for a few countries has increased. One of the reasons is the growth of the insurance market, particularly health insurance. Countries like Bangladesh, Pakistan, Nepal, and Sri Lanka have shown a rise in the proportion of Private expenditure, while few of the countries have been able to reduce such proportion. Maldives and India have been able to reduce the proportion of private expenditure by 51.02 percent and 13 percent respectively, which has been possible by prompt government interventions.

Countries Expenditures	Years	Afghanistan	Bangladesh	Bhutan	India	Maldives	Nepal	Pakistan	Sri Lanka	South Asia
Government Expenditure	2002	0.89	24.71	72.41	18.16	29.03	20.13	37.89	53.45	21.04
	2019	8.19	18.63	73.57	32.79	79.3	24.81	31.98	47.22	31.79
Change		I=7.3	D=6.08	I=1.16	I=14.63	I=50.27	I=4.68	D=5.91	D=6.23	I=10.75
Private Expenditure	2002	85.38	65.13	18.7	79.38	70.07	58.23	57.49	46.35	75.71
	2019	79.4	75.26	19.47	66.38	19.05	63.28	60.92	51.42	66.11
Change		D=5.98	I=10.13	I=0.77	D=13	D=51.02	I=5.05	I=3.43	I=5.07	D=9.6
Out-of-Pocket expenditure	2002	85.38	62.29	10.3	73.37	51.88	51.96	54.87	40.45	70.17
	2019	79.3	72.68	17.79	54.78	16.45	57.91	53.81	45.64	56.04
Change		D=6.08	I=10.39	I=7.49	D=18.59	D=35.43	I=5.95	D=1.06	I=5.19	D=14.13
External Expenditure	2002	13.73	10.16	8.89	2.45	0.91	21.64	4.62	0.2	3.25
	2019	12.41	6.12	6.96	0.83	1.65	11.91	7.09	1.36	2.11
Change		D=1.32	D=4.04	D=1.93	D=1.62	I=0.74	D=9.73	I=2.47	I=1.16	D=1.14

Source: Author's elaboration based on WHO (2022), World Bank (2002).

I= Increase and D= Decrease

In the absence of government support, people are compelled to spend out-of-pocket which is financed generally by savings, borrowings, or the sale of household assets. Table 1 shows that Maldives, India, and Afghanistan have been able to reduce the proportion of out-of-pocket health expenditure by 35.43, 18.59, and 6.08 percent respectively due to an increase in public (government) health spending. External expenditure like direct foreign transfers and foreign transfers distributed by the government has also been supporting financial sources of healthcare for South Asian countries. Data reveals (table 1) that foreign support for healthcare seems to have been decreasing for some countries like Nepal, Bangladesh, Bhutan, India, and Afghanistan. Like in Bhutan, compared to the expansion of its GDP, the government has been giving the health sector less attention. Government health spending as a share of total spending by the government decreased from 11% in 2010 to 9% in 2015. The allocation to the health sector has decreased from 7.3% in the 2008–2013 (10th Five-Year Plan) to 6.5% in the 11th (5th) Five-Year Plan, according to the content of the government's overall five-year plan (table 1). The decreases were brought about by the government shifting its investment priorities in favor of infrastructure projects that would generate income. Composite figures for South Asia reveal that over time,

government health expenditure, in general, has increased, resulting in a decrease in private, out-of-pocket, and external expenditures (table 1).

Table 2 PERCENTAGE CHANGE AND GROWTH RATES OF DIFFERENT COMPONENTS OF HEALTHCARE EXPENDITURE IN SOUTH ASIAN ECONOMIES (2002-2019)									
	Afghanistan	Bangladesh	Bhutan	India	Maldives	Nepal	Pakistan	Sri Lanka	South Asia
Government Health Expenditure									
Change in health expenditure (%)	820.22 ↑re	24.60 ↓re	1.60 ↑re	80.56 ↑re	173.17 ↑re	23.25 ↑re	15.6 ↓re	11.65 ↓re	51.1 ↑re
CAGR	13.12	-1.57	0.09	3.36	5.74	1.17	-0.94	-0.69	2.32
Private Health Expenditure									
Change in health expenditure (%)	7.00 ↓re	15.55 ↑re	4.12 ↑re	16.38 ↓re	72.81 ↓re	8.67 ↑re	5.97 ↑re	10.99 ↑re	12.68 ↓re
CAGR									
CAGREGR (%)	-0.4	0.81	0.22	-0.99	-6.98	0.46	0.32	0.58	-0.75
Out-of-pocket health Expenditure									
Change in health expenditure (%)	7.12 ↓re	16.68 ↑re	72.72 ↑re	25.34 ↓re	68.29 ↓re	11.45 ↑re	1.93 ↓re	12.83 ↑re	20.14 ↓re
CAGR									
CAGREGR	-0.41	0.86	3.08	-1.61	-6.18	0.6	-0.11	0.67	-1.24
External Health Expenditure									
Change in health expenditure (%)	9.61 ↓re	39.76 ↓re	21.71 ↓re	66.12 ↓re	81.32 ↑re	44.96 ↓re	53.46 ↑re	580 ↑re	35.08 ↓re
CAGR									
CAGREGR	-0.56	-2.78	-1.35	-5.84	3.36	-3.26	2.41	11.24	-2.37

Source: Author's Calculation, *↑re (Increase), ↓re (Decrease).

From Table 2 it is discernible that there is a huge percentage change in the case of government health expenditure in Afghanistan followed by Maldives, India, Bangladesh, and Nepal. However, in the case of Pakistan and Sri Lanka, the percentage change in healthcare expenditure is less. Government healthcare expenditure has decreased in Pakistan, Sri Lanka, and Bangladesh while it has increased in other South Asian Economies. Similar patterns have been observed in the growth rate of different South Asian Economies with the highest growth rate in Afghanistan and lowest in Bangladesh.

As far as Private healthcare expenditure is concerned there is a huge percentage change in Bangladesh, Sri Lanka, Nepal, Pakistan, and Bhutan. whereas in countries like Maldives, India, and Afghanistan there is less percentage change in healthcare expenditure. Similar patterns have been observed in the growth rate of different South Asian Economies with the highest growth rate in Bangladesh and the lowest in Maldives.

Percentage change for Out-of-pocket healthcare expenditure is greater in Bhutan, Bangladesh, Sri Lanka, and Nepal. And less in countries like Maldives, India, Afghanistan, and Pakistan. The highest growth rate is in South Asian countries like Bangladesh and the lowest in Maldives.

Percentage change for External healthcare expenditure is higher in Sri Lanka, Maldives, and Pakistan and lower in India, Nepal, Bangladesh, Bhutan, and Afghanistan. The pattern observed in the growth rate of South Asian economies with the highest growth rate in Sri Lanka and the lowest in India.

Type of the economy based on income	Name of the economy	2002 (current US\$)	2020	GNI per capita (2002-20) CAGR	Rank	2002	2020	Health expenditure per capita (2002-20) CAGR	Rank
Low Income (1)	Afghanistan	460	500*	0.46%	8	17	80.29	9.01%	3
Lower Middle Income (2)	Bangladesh	430	2300	9.76%	1	9.38	50.66	9.82%	2
	Bhutan	430	2840	7.22%	5	35.96	133.7	7.57%	4
	India	460	1900	8.20%	4	20.14	56.63	5.91%	7
	Nepal	230	1180	9.51%	2	10.46	58.31	10.02%	1
	Pakistan	490	1420	6.09%	6	14.96	38.18	5.34%	8
	Sri Lanka	840	3880	8.87%	3	42.74	151.06	7.27%	5
Upper Middle Income (3)	Maldives	2640	6780	5.38%	7	248.91	825.57	6.89%	6

Source: Author's calculation, *the growth rate of GNI per capita for Afghanistan has been calculated since 2009 instead of 2002.

The perusal of Table 3 reveals a considerable difference in the growth rate of GNI per capita and health expenditure in South Asian Economies. As far as GNI per capita is concerned, Bangladesh experiences the highest growth rate (9.76%) followed by Nepal, Sri Lanka, and India while Afghanistan experiences the lower growth rate (9.51%). On the other hand, Nepal experiences the highest growth rate in health expenditure per capita followed by Bangladesh and Afghanistan. So, it indicates the discrepancy between GNI per capita and healthcare expenditure among different South Asian Economies. So, to test the significance of the difference between the healthcare expenditure of different economies the study proceeds to test of hypothesis.

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
GHE	Between Groups	154.008	2	77.004	23.833	0.003
	Within Groups	16.155	5	3.231		
	Total	170.163	7			
PHE	Between Groups	44.737	2	22.369	55.689	0
	Within Groups	2.008	5	0.402		
	Total	46.745	7			
OOPE	Between Groups	39.189	2	19.595	8.439	0.025
	Within Groups	11.609	5	2.322		
	Total	50.798	7			
EHE	Between Groups	10.337	2	5.168	0.139	0.874
	Within Groups	186.4	5	37.28		
	Total	196.737	7			

Source: Author's Calculation.

It is clear from Table 4 that the difference between the growth rate in different

components of healthcare expenditure (viz., GHE, PHE, and OOPE) among different income groups of South Asian economies is significant ($\text{sig} < .05$) while it is non-significant for EHE. So, it can be concluded that there is a significant difference in the growth rate of., GHE, PHE, and OOPE across different income groups in South Asian Economies.

DISCUSSION

Financing healthcare has always remained a matter of significance to any country. Be it a developed, developing, or underdeveloped country, extending healthcare services has always remained a priority, and financing for the same is no less than a challenge. The role of government in financing healthcare services has always been leading, since healthcare is considered as a public good. This is the reason, in developed countries as well government financing for healthcare has always been significant. Countries like Britain, Canada, France, Germany, and Australia have well-established Public healthcare systems in place to provide subsidized / free healthcare services to the general masses. There is a private mechanism as well in the form of insurance which has been another way of financing healthcare and this has also established its space in a healthcare system. In the absence of any support, people spend out of their pocket to support healthcare expenditures.

A similar picture can be seen in developing countries and particularly in South Asian Countries. In these countries, healthcare cost is mostly borne by the households themselves. For governments of these countries, financing healthcare has always been a difficult task. For certain populous countries like India, delivering accessible healthcare services has always been an uphill task. In the under-analysis of South Asian countries, four major sources of financing healthcare have been identified and these are out-of-pocket expenditure, private expenditure government expenditure, and external expenditure. For covering healthcare costs two types of expenditures are incurred and these are current health expenditure and capital health expenditure. To cover such costs, the government spends out of public revenues, private expenditures in terms of insurance, etc., out-of-pocket spending of the general public and external assistance from outside the borders of a country are utilized.

It is discernible from Table 5 that all the components of healthcare expenditure except OOPE have a positive and significant impact on individual well-being as indicated by life expectancy. Similar results have also been observed by South-East-Asian (Behera & Dash, 2020). Therefore, it is necessary to invest in healthcare as individuals with better health are more productive and their economic contribution to society increases.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNOOPE	-0.079076	0.029532	-2.677591	0.0083
LNGFCF	0.031431	0.008589	3.659506	0.0004
LNGDP	0.063120	0.004281	14.74370	0.0000
LNEHE	0.003070	0.003261	0.941463	0.3480
LNDPHE	0.124717	0.030269	4.120279	0.0001
LNDGGHE	0.030985	0.006345	4.883735	0.0000
IQI	-0.004440	0.002551	-1.740716	0.0839
C	3.375046	0.068800	49.05605	0.0000
R-squared	0.875435	Mean dependent var		4.22446
Adjusted R-squared	0.869380	S.D. dependent var		0.075712
S.E. of regression	0.027363	Akaike info criterion		4.308034

Sum squared resid	0.107820	Schwarz criterion	- 4.148882
Log likelihood	335.4106	Hannan-Quinn criter.	- 4.243381
F-statistic	144.5746	Durbin-Watson stat	0.292419
Prob(F-statistic)	0.000000		

Source: Author's calculation. ***, **, and * denote significance levels at 1%, 5%, and 10% respectively.

CONCLUSION AND POLICY IMPLICATIONS

Healthcare as a public good and basic human requirement has to be made available to all by improving access to services. A healthy population is productive and contributes towards the development of a country. Providing affordable healthcare to general population is always challenging. Several constraints like infrastructure, financing, human resources, etc. for efficient service delivery have always been a challenge. Financing healthcare as one of the core dimensions of health systems is always a matter of concern for healthcare administration. Healthcare can be financed by government, private, out-of-pocket, and external sources. The data reveals that there is more dependence on government, private, and out-of-pocket sources for financing healthcare in South Asian countries. Over some time, there has been a positive change in the proportion of utilization of these sources of finances. In general, an increase in government expenditure has been observed resulting in the reduction of the proportion of other sources of finances (private, out-of-pocket, and external). Overall, there has been an improvement, but still, a significant portion of healthcare expenditure is borne by people themselves, which adds to their financial stress. There is a need to increase government interventions in terms of social security programs particularly focusing on healthcare to reduce the pocket burden of the general masses. Further research needs to be conducted to evaluate the performance of such interventions to improve their effectiveness. In South Asian countries the government should increase spending on healthcare so that out-of-pocket healthcare expenditure will be reduced, as is evident from Maldives where the increase in government has been able to reduce the financial burden on public pockets. The government should start various health coverage programs to achieve universal health coverage. The government should provide different schemes for financing healthcare. Programs like Ayushman Bharat in India, the Universal health insurance scheme Aasandha in Maldives, and the Sehat Sahulat Programme in Pakistan are a few of the interventions that have been able to reduce out-of-pocket. Similarly, programs must be introduced to increase the affordability of the general masses for availing healthcare services.

LIMITATION

In the present study, the number of observations was less as the study considered data from 2002 to 2019. The reason for the same was the lack of data viz., the period before 2002 could not be included as the data was not available for Afghanistan and beyond 2019, and the data for some of the components for healthcare expenditure of different South Asian economies was missing.

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Received: 11-Nov-2024, Manuscript No. AMSJ-24-15434; **Editor assigned:** 12-Nov-2024, PreQC No. AMSJ-24-15434(PQ); **Reviewed:** 26-Nov-2024, QC No. AMSJ-24-15434; **Revised:** 28-Dec-2024, Manuscript No. AMSJ-24-15434(R); **Published:** 20-Jan-2025