

External Funding and its Effects on Out-of-Pocket Expenditure in SAARC Nations: Global Health Financing Strategies

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How to cite this article: Yogesh Chandra, Ajai Kumar Jain, Amit Prakash Sharma (2024) External Funding and its Effects on Out-of-Pocket Expenditure in SAARC Nations: Global Health Financing Strategies *Library Progress International*, 44(3), 15347-15356

Abstract:

Out-of-pocket health expenditure causes a detrimental impact on health outcomes and also contributes to impoverishment and healthcare catastrophe, a major concern in healthcare financing, prevailing in developing nations. Various components of Current Health Expenditure (CHE) affect the OOPS. This research study focuses on the impact of External Health Expenditure (EHE) on Out-of-pocket health expenditure in South Asian Association for Regional Cooperation (SAARC) nations.

The objective of this research study is to conduct a comprehensive analysis of patterns and trends in external health expenditure and its impact on Out-of-pocket spending in SAARC nations and provide recommendations to optimize global health financing strategies by addressing common challenges, enhancing the understanding and cooperation for mutual benefits. The study follows a descriptive research design depending on secondary quantitative data from the WHO Global Health Expenditure Database for the years 2012 to 2021. Descriptive statistics explore the relationship and trend of external health expenditure and out-of-pocket spending.

The discussion highlights the importance of understanding the external sources of funding and its role in promoting accessibility, and affordability to enhance public health and health outcomes by mutual collaboration for good policies and practices.

The research findings emphasize the noticeable impact of external health expenditure on out-of-pocket spending in SAARC countries. So there is a scope for health diplomacy in India. Further researchers, policymakers, and healthcare providers can utilize these findings in developing cost-effective interventions, designing pro-poor financial schemes, and other initiatives to reduce the financial burden on individuals.

Keywords: Out of Pocket Spending (OOPS), National Health Accounts(NHA), External Health Expenditure (EXE), CDC-Center for Disease Control and Prevention, CHE-Current Health Expenditure, AYUSH (Ayurveda, Yoga, Unani, Siddha & Homeopathy), Health Technology Assessment (HTA).

INTRODUCTION

The impact of external funding on out-of-pocket health expenditure is a critical area of study, particularly in the context of healthcare financing and its implications for individuals and households. Several studies have shed light on the relationship between external funding and out-of-pocket health expenditure, providing valuable insights into this complex issue. Several global agencies provide external funding for healthcare research, health economics, and public health initiatives such as:

World Health Organization (WHO): WHO is an agency of the United Nations playing a vital role in global health. It provides funding to various nations globally for healthcare projects and research.

World Bank: The World Bank supports healthcare projects worldwide, for improving health systems, infrastructure, and public health outcomes.

United Nations International Children's Emergency Fund (UNICEF): UNICEF focuses on child health and well-being. It supports projects about maternal and child health, nutrition, and immunization.

Center for Disease Control and Prevention (CDC) - USA: Global health security, disease prevention, and control needs collaboration amongst the nations and CDC ensures the same and provides funding to achieve the Sustainable Development

Goals (SDGs).

Global Fund to Fight AIDS, Tuberculosis, and Malaria, Bill & Melinda Gates Foundation, European Union Health Programs, Global Alliance for Vaccines and Immunization (GAVI), etc various other global agencies to fund healthcare projects, research works for better public health outcomes.

In SAARC nations, Out-of-pocket spending (OOPS) in healthcare is prominent which means direct payments made by individuals at the time of service utilization, rather than being covered by a third-party payer, such as insurance or government schemes. There are several factors responsible for the significant proportion of OOPS such as lack of preventive and Primary care, deficient infrastructure, inadequate health insurance, lack of evidence-based technology, etc. This research article explores the relationship between External Health Expenditure and out-of-pocket spending (OOPS), and various factors responsible for the increasing trend of OOPS in a few SAARC nations. The study also suggests measures to improve External funding in the healthcare system to address the critical issue of OOPS and make recommendations for mutual collaboration amongst the SAARC nations to establish a better financially viable healthcare system in the country.

This study has some limitations due to inadequate data sources that need the institutionalization of National Health Accounts (NHA).

REVIEW OF LITERATURE

Especially in low and middle-income countries, external funding plays a crucial role in the healthcare sector, as economic and political crises can lead to reduced funds for health services [9]. Engaging clinicians and organizations in research has reflected improvement in healthcare performance, with initiatives such as research networks and collaborations for leadership in applied health research [2]. However, inadequate sustainability of health impacts from external funding in HIV, TB, and malaria programs is a matter of concern [8]. In countries facing insufficient healthcare budgetary funding and low healthcare quality, external funding sources, such as voluntary health insurance, have grown in national healthcare facilities [14].

External funding facilitates the affordability of comprehensive community health worker programs in rural sub-Saharan Africa, and studies suggest that strong human resources for health are essential to improve global health outcomes [12]. There may be various other factors but external resources are also important for scientific production, and the number and quality of outcomes are expected to be at least non-decreasing [7]. Transitioning from donor funding toward domestic financing for HIV and TB programs presents major challenges, emphasizing the significance of external funding in sustaining healthcare programs [6]. Moreover, funding structures within community mental health settings have been shown to impact service providers' behavior and practices, highlighting the influence of external funding on healthcare delivery and outcomes [4]. Funding sources affect the program characteristics, such as scale and healthcare provider composition, the same has also been established in the context of publicly versus privately funded cardiac rehabilitation programs [3].

The thematic study suggests that external funding resources can play a vital role in healthcare performance, outcomes, and sustainability and also reduction of OOPS.

OBJECTIVE

1. To Conduct a comprehensive analysis of the patterns and trends in external funding for healthcare in SAARC nations.
2. To provide recommendations for optimizing global health financing strategies to reduce healthcare costs and improve healthcare delivery efficiency in the SAARC region.

RESEARCH METHODOLOGY

Research Design-This study is descriptive which gives comprehensive knowledge about the pattern of External health expenditure in SAARC countries.

Data type- This descriptive study is a quantitative secondary data-based study

Data Source- The WHO-Global Health Expenditure Database [15] is accessed for the secondary data for the framework of National Health Accounts. The following indicators are selected for the study:

1. External Health Expenditure (EXT) as % of Current Health Expenditure (CHE)
2. Out-of-Pocket Expenditure (OOPS) per Capita in US\$

Data Period-Total data for the duration of ten years from 2012 to 2021 are used for the eight SAARC countries.

Data Analysis- Descriptive statistics is used to analyze and interpret the data. MS Excel & Tableau Desktop-Public Edition, are used for the same.

Limitations-

1. National Health Accounts are updated every four or five years, while writing this research paper NHA data of SAARC countries was available up to 2020.
2. There is no other comprehensive global NHA data source for SAARC countries

Research Ethics- Data used in the study is open access data hence no issue with the consent or permission to use the same.

RESULT

Table1. The Table showing External Health Expenditure as % of Current Health Expenditure

External Health Expenditure as % of CHE-SAARC Region								
Year/Country	Afghanistan	Pakistan	Bangladesh	Bhutan	India	Maldives	Nepal	Sri Lanka
2012	21	5	9	9	1	1	13	0
2013	23	7	9	10	0	1	12	1
2014	22	8	8	9	1	1	14	1
2015	16	5	8	5	1	0	14	1
2016	19	6	6	5	1	0	12	1
2017	19	5	6	11	1	0	15	3
2018	20	7	6	6	0	1	14	1
2019	20	7	6	7	1	2	12	1
2020	16	6	5	5	1	2	11	2
2021	19	10	8	22	2	13	13	4

Table 1 reflects the highest External Funding in Afghanistan over a period due to economic & political instability while as India, Maldives & Sri Lanka enjoy lower external funding may be due to self-sustainable healthcare systems or as a government policy decision.

Table2. The Table showing Out of Pocket Spending (OOPS) as % of Current Health Expenditure-SAARC Nations

Out-of-Pocket Spending as % of CHE-SAARC Region								
Year/Country	Afghanistan	Pakistan	Bangladesh	Bhutan	India	Maldives	Nepal	Sri Lanka
2012	74	61	68	21	63	32	56	52
2013	72	63	70	20	69	32	64	49
2014	73	66	71	21	67	28	60	49
2015	78	65	73	20	65	19	59	49
2016	76	62	71	20	63	19	55	50
2017	75	58	70	13	55	21	57	49
2018	76	56	71	13	53	20	58	47
2019	77	56	72	18	52	17	58	46
2020	75	55	74	15	49	17	54	44
2021	77	57	73	19	50	14	51	44

Table 2 shows that there is fluctuation in the percentage of Out of out-of-pocket spending as a share of Current Health Expenditure over the years in SAARC nations due to various socioeconomic and political factors. Afghanistan, Bangladesh, and Nepal have seen significant fluctuations in out-of-pocket spending over the years. Bhutan, the lowest populous country, consistently maintained a lower level of out-of-pocket spending. Several factors are responsible for a decreasing trend in out-of-pocket spending over the specified period in India & Pakistan

Figure 1- Trend of External Health Expenditure and Out of Pocket Spending as % CHE -Afghanistan

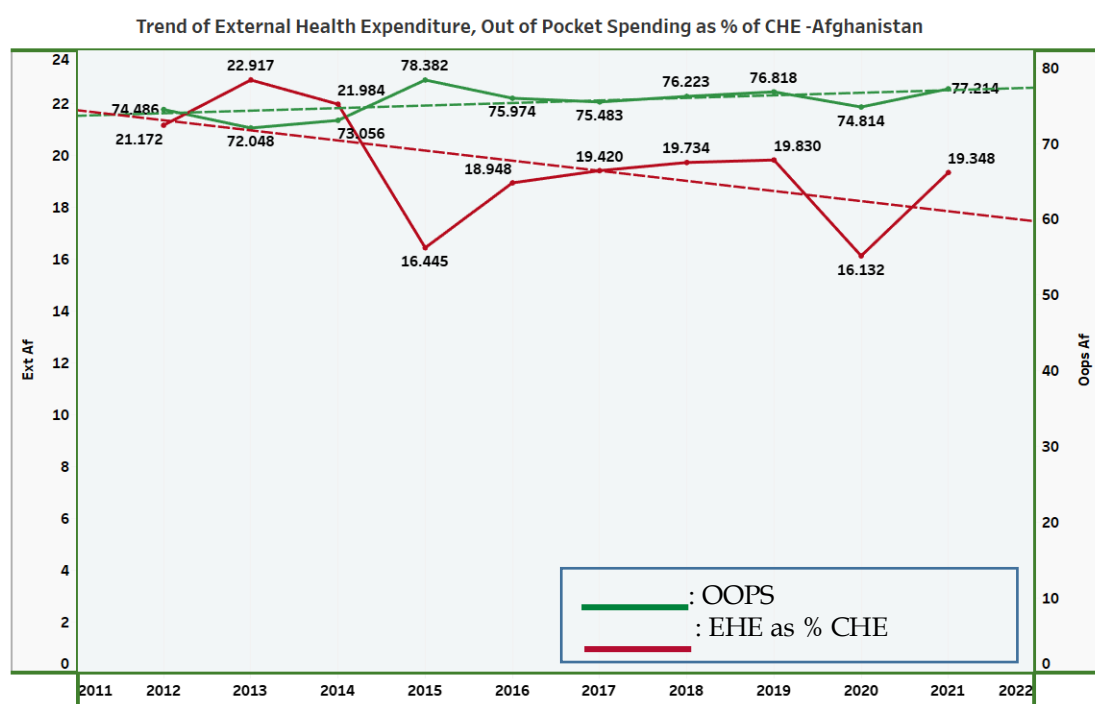


Figure 1 shows that External Health Expenditure (EHE) has some variation, with a notable increase in 2012 and 2019. Out-of-pocket spending (OOPS) remains high with a increasing trend from 74% in 2012 to 77% in 2021.

Figure 2- Trend of External Health Expenditure and Out of Pocket Spending as % CHE-Bangladesh

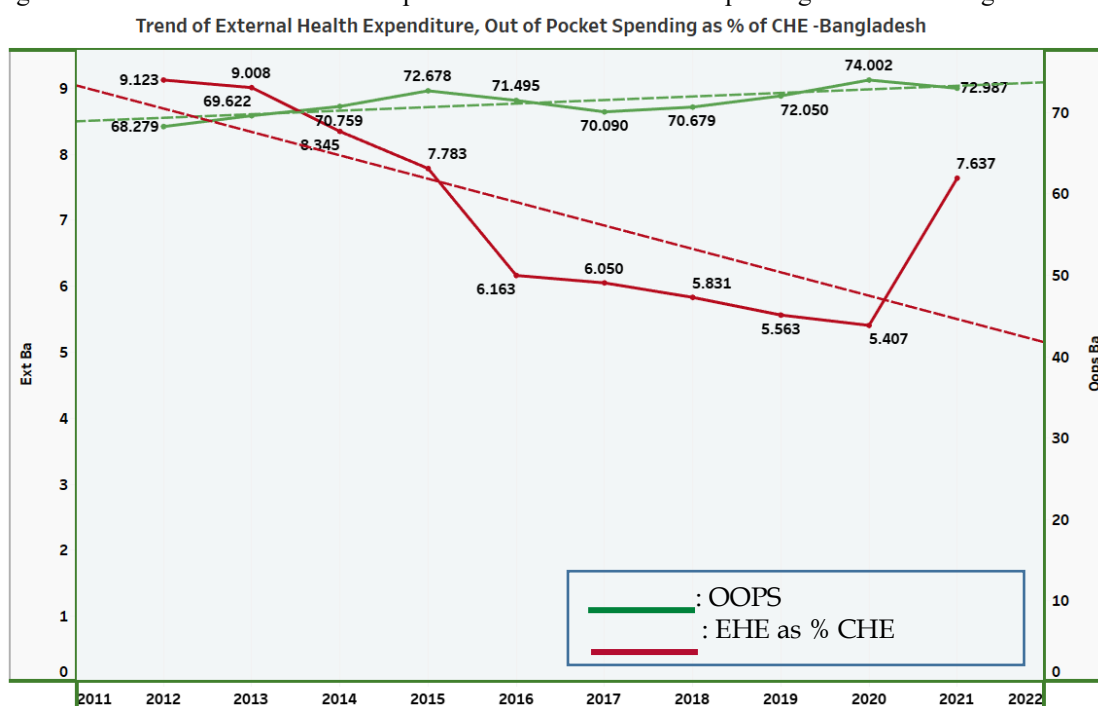


Figure 2 reflects that EHE and OOPS percentages are in increasing trend indicating a rise in both health expenditure and out-of-pocket spending. Out-of-pocket spending percentage is consistently high, within the range of 68% to 73%.

Figure 3- Trend of External Health Expenditure and Out of Pocket Spending as % CHE -Bhutan

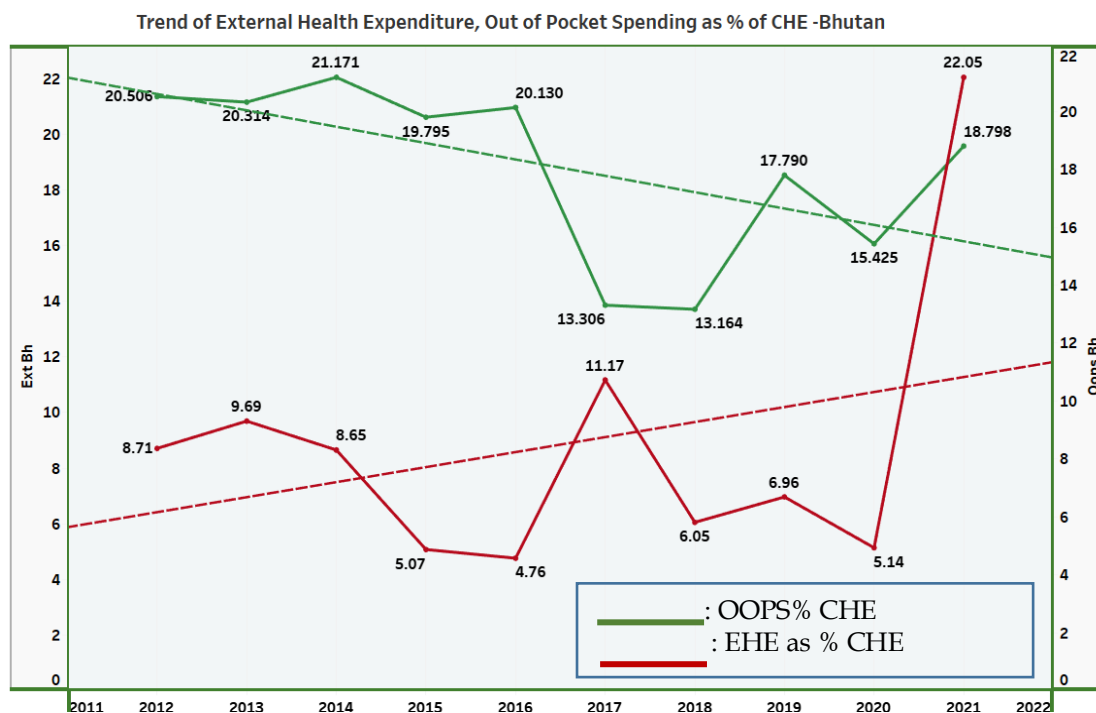


Figure 3 reflects EHE is relatively stable, with a slight increase in recent years. The financial burden for healthcare services is low and stable as Out-of-Pocket Spending ranges from 13% to 21%.

Figure 4- Trend of External Health Expenditure and Out-of-Pocket Spending as % CHE-India

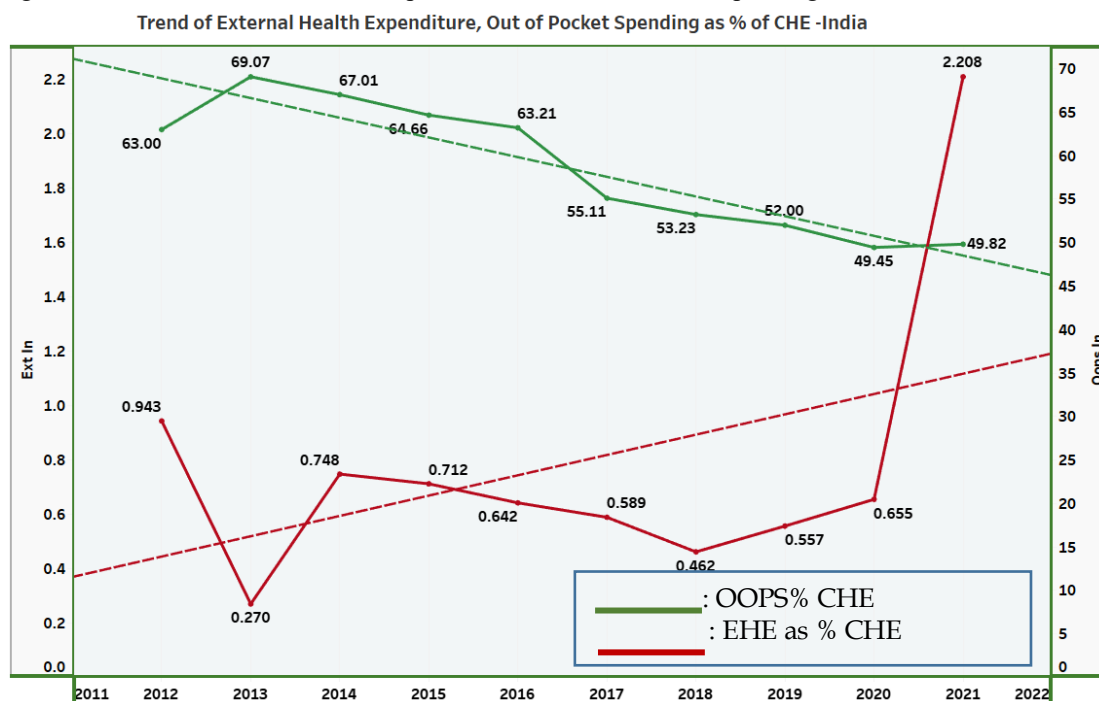


Figure 4 shows a general increasing trend in EHE, indicating a growth in health expenditure and Out of out-of-pocket expenditure is declining over the years from 63% in 2012 to 50% in 2021.

Figure 5- Trend of External Health Expenditure and Out of Pocket Spending as % CHE -Maldives

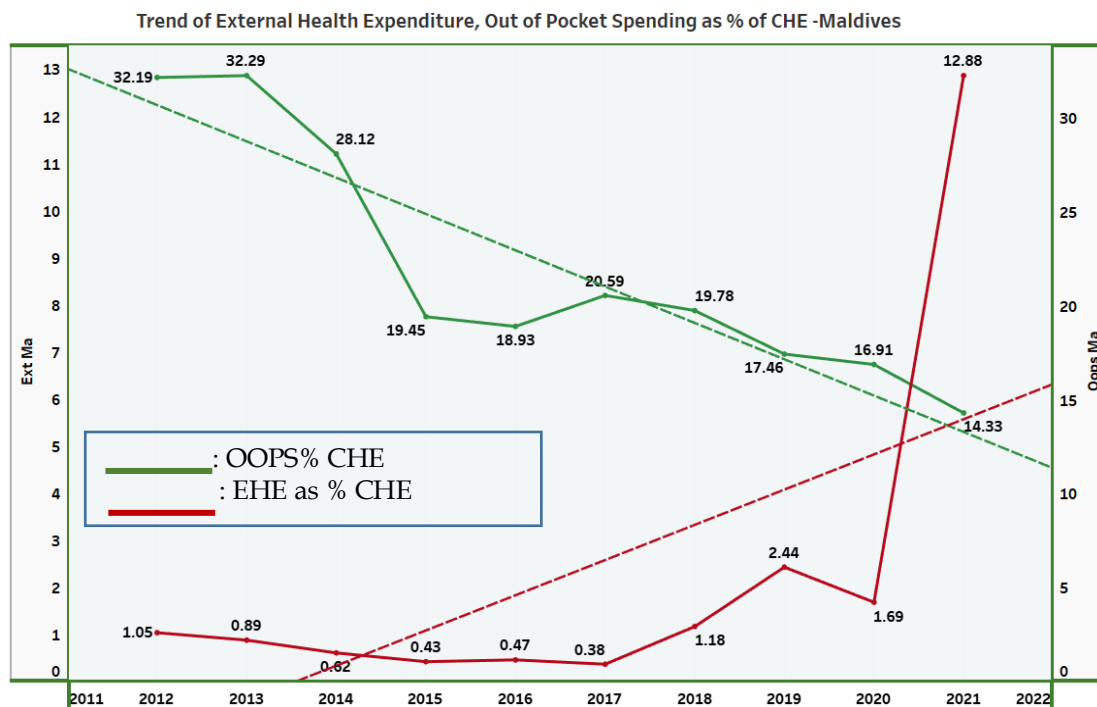


Figure 5 reflects both EHE and OOPS percentages show a relatively stable trend. An increase from 1.69 in 2020 to 12.88 in 2021 indicates a conducive atmosphere for healthcare development. Out-of-pocket spending is moderate, ranging from 14% to 32%.

Figure 6- Trend of External Health Expenditure and Out of Pocket Spending as % CHE-Nepal

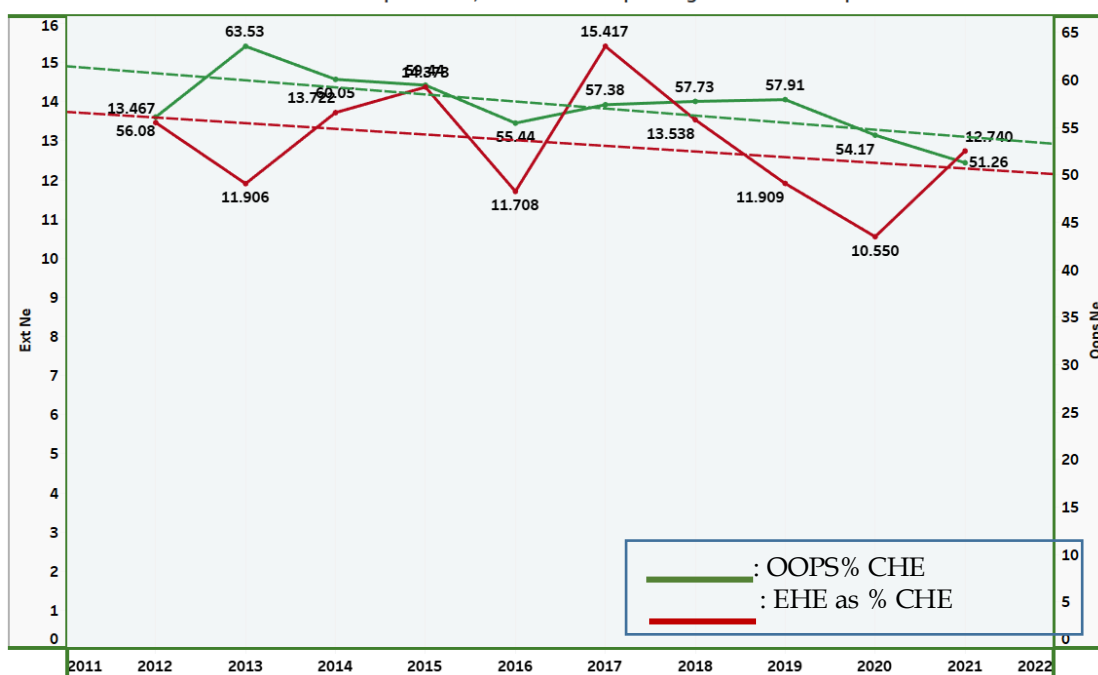


Figure 6 reflects EHE exhibits an increasing trend, indicating growth in health expenditure. Out-of-Pocket Spending shows some fluctuations within a certain range.

Figure 7- Trend of External Health Expenditure and Out-of-Pocket Spending as % CHE-Pakistan

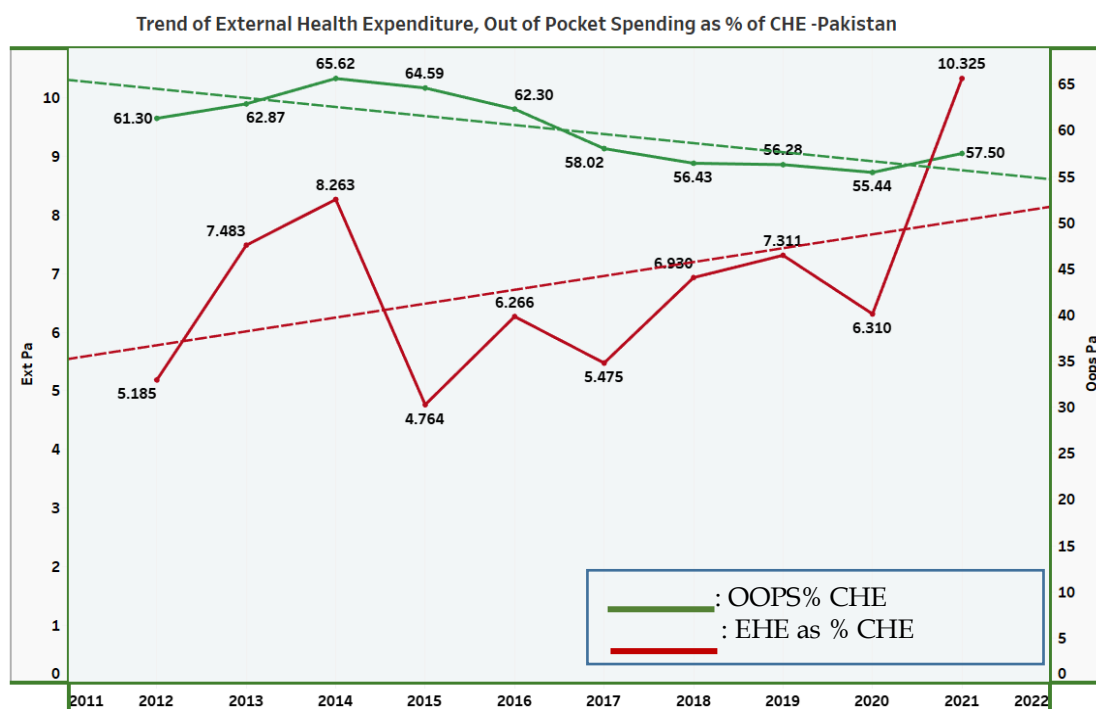


Figure 7 indicates that EHE and OOPS percentages both have an increasing trend over the years. Out-of-pocket spending is a matter of concern as it is relatively high, ranging from 55% to 57% in recent years.

Figure 8- Trend of External Health Expenditure and Out of Pocket Spending as % CHE-Sri Lanka

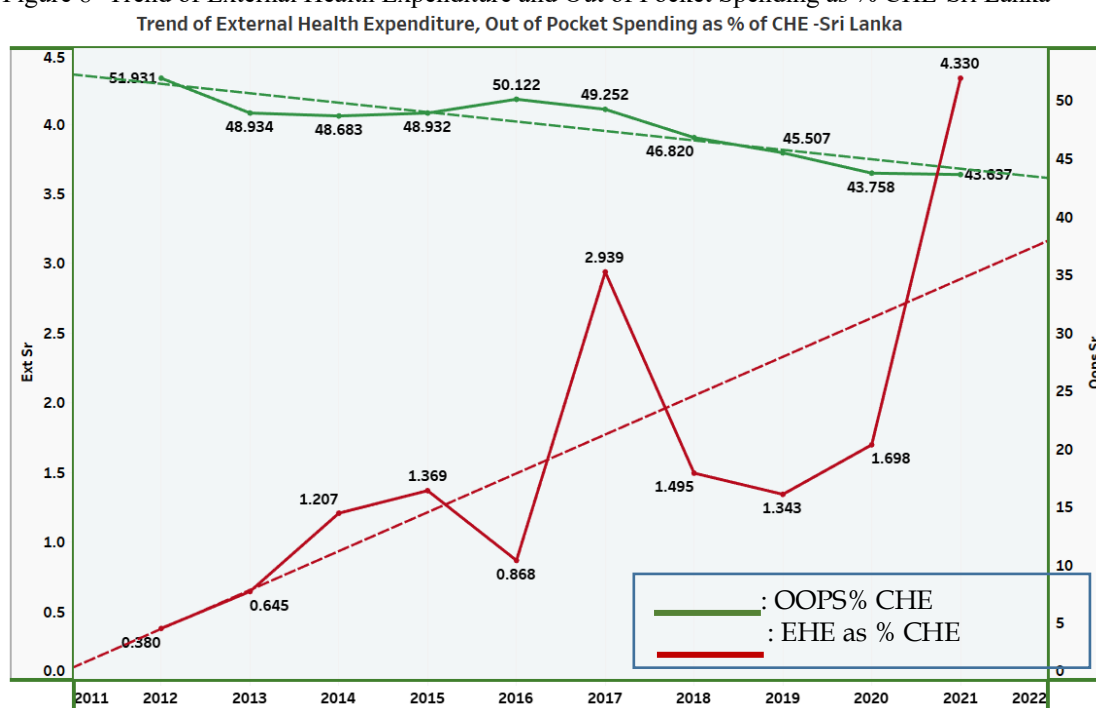


Figure 8 demonstrates a steady increase in External Health Expenditure, reflecting the positive trend in health expenditure. Out-of-pocket spending is moderate having some variations, ranging from 44% to 52%.

DISCUSSION

Current Health Expenditure (CHE) is the total amount of resources that any country spends on health services and goods within a specified time frame. The overall funding of a country's healthcare system depends upon various components of CHE. So it is the collective contribution of the components that makes the healthcare system of any country self-reliant and sufficient enough to provide effective healthcare services to the citizens. Different interrelated components of CHE are as:

1. **Personal Health Expenditure (PHE):** It is the amount an individual pays directly from the pocket while purchasing healthcare services and goods and it is commonly known as Out of Pocket Spending (OOPS).
2. **Government Health Expenditure (GHE):** It is the fund allocated by the government for creating public health facilities such as hospitals, public health programmes, clinics, and the remuneration of healthcare professionals.
3. **Social Health Insurance Contributions:** This is a significant component of CHE, contributed by individuals and employers to avail the specified healthcare services and goods through a financing scheme.
4. **Private Health Insurance Premiums:** It is the amount paid by individuals or employers to private health insurance schemes to avail the specific health coverage.
5. **Nonprofit Institutions Serving Households (NPISH):** These are the nonprofit organizations that facilitate healthcare services and goods to households using charitable hospitals, clinics, etc.
6. **External Health Expenditure:** It refers to funds received from international sources, such as foreign aid, grants, or loans, specifically designated for healthcare purposes.
7. **Other Revenue:** This can include revenue generated from investments, donations, or specific taxes earmarked for healthcare.

Policymakers, researchers, and healthcare professionals need to understand the breakdown components of CHE to assess the sources of funding for a country's healthcare system. It is important in promoting healthcare services equity as this vital understanding helps in analyzing the role of government, individual insurance mechanisms, and external funding resources.

Table3. The Table showing summary of average External Health Expenditure as % of Current Health Expenditure-SAARC Nations (2012-2021)

S.No.	Country	Avg EHE	Reasons
1	Afghanistan	20	High external health expenditure due to political instability, damaged infrastructure, difficult geographical terrain, and economic crisis
2	Pakistan	7	Moderate external health expenditure due to internal conflicts, limited healthcare infrastructure, unstable economy
3	Bangladesh	7	Moderate to high external health expenditure, mostly driven by infectious disease burden healthcare infrastructure development, Maternal & child mortality, and good international collaboration
4	Bhutan	9	Difficult terrain, limited specialized services, increasing NCDs, infectious diseases, Mental problems, aging population drive moderate external health expenditure
5	India	1	little external health expenditure indicative of self-reliant resources may be policy decisions also, mostly needed for disease control, capacity building, dealing with increasing NCDs, etc.
6	Maldives	2	Moderate external health expenditure is driven by heavy tourism because of the scenic beauty and serene atmosphere driven by collaborations and initiatives to strengthen healthcare systems in the island nation.
7	Nepal	13	Moderate external health expenditure is driven by disease control, capacity building, and improving healthcare access in remote areas, attracting foreign investment
8	Sri Lanka	2	Lower external health expenditure inferencing self-reliance, good government policies for healthcare, External funding used for infrastructure development

Table 3 shows that there is a variation in External Health Expenditure across the SAARC nations, influenced by general geographical terrain, political environment, Government economic policy, availability of healthcare resources, burden of disease, etc. Figure 1-8 indicates that External Health Expenditure to any country reduces the financial burden, and out-of-pocket Spending (OOPS) by developing healthcare infrastructure, promoting various public health programs, capacity building, etc.

Various other components of External Health Expenditure play a role in reducing the OOPS. Good government policies supporting the high health expenditure from government, private, and external sources improve health outcomes. While as

high OOPS leads to impoverishment and adverse health outcomes [14].

Chronic illness or NCDs are gradually increasing in SAARC nations too particularly in India and Bhutan leading to financial burden on individuals not supported by any insurance schemes. Various studies underscore the financial challenges individuals face due to out-of-pocket health spending, especially in the context of managing chronic illnesses [5]. Health insurance also promotes the centralization of healthcare services in the urban and literate-dominated region, leaving fewer resources available for unprivileged communities and making them more prone to impoverishment and healthcare catastrophe. Pro-poor financing schemes are needed to mitigate these adverse effects [1]. One study also suggests that non-contributory health insurance can reduce the financial burden on individuals [11].

External funding helps in mitigating the OOPS if appropriately utilized as in creating and supporting healthcare infrastructure for the public assisting in easy accessibility and reducing the out-of-pocket expenditure when the services are needed.

External funding will aid in subsidizing the healthcare services cost (diagnostic, pharmacy, etc) and enhance the affordability for better health outcomes. It can also create an environment for awareness about health-related issues by supporting various public health initiatives.

Further, this can also support extensive research and Health Technology Assessment (HTA) to develop cost-effective interventions leading to more affordable healthcare services and ultimately reduction in out-of-pocket spending.

Few SAARC nations as Afghanistan, Nepal, and Bhutan seem to be more reliant on external funding in comparison to other nations to enhance healthcare systems, improve healthcare outcomes, and counter several challenges existing in the healthcare system.

CONCLUSION

The findings of this study and other significant previous research works emphasize the significant impact of External Health Expenditure on out-of-pocket expenditure. Understanding various facets of out-of-pocket spending will help policymakers, healthcare professionals, and researchers to develop community/individual-centered cost-effective interventions to alleviate the financial burden in the context of healthcare in SAARC nations.

RECOMMENDATIONS

This study suggests the following recommendations for the appropriate utilization of external funding to develop a more self-reliant healthcare system that can reduce out-of-pocket expenditure with more positive healthcare outcomes towards Universal Health Coverage:

1. There is an exuberant scope of investing in the SAARC nations in healthcare, particularly in Afghanistan, Nepal, and Bhutan which are more reliant on external health expenditure. India can explore such opportunities for investing in healthcare infrastructure, capacity building, and other initiatives in public health (Scope for Health Diplomacy).
2. Maldives is facing challenges in the pharmacy sector and huge costs incurred on medicines and disposables, being a leader in the pharma industry India can encourage public and private partnerships through joint ventures, technology sharing, and other collaborative projects adopting best practices and expertise (Scope for Health diplomacy).
3. Bhutan is a country where traditional medicine practice is more prominent and India has a rich heritage of AYUSH (Ayurveda, Yoga, Siddha, and Homeopathy). Traditional medicine more focus on preventive and promotive practices for a healthy life which alleviate the cost-intensive management of chronic illness. India can collaborate to provide such expertise services leading to a reduction in the financial burden on individuals can play a vital role by providing expertise services.
4. SAARC nations should optimize the research activities to develop cost-effective healthcare interventions, and medical tourism policies and explore the feasibility of more pro-poor healthcare financing schemes to reduce out-of-pocket spending.

CONTRIBUTION OF THE RESEARCH PAPER

SAAC countries are our neighbor states with economic and social perspectives. For maintaining peace and harmony in this region India has a leading role and for this health diplomacy may play an important role.

FUTURE RESEARCH SCOPE

Presently there is no model to illuminate the intricate relation between External Health Expenditure and Out of Pocket Expenditure and a model may be developed to delve deeper into the same.

DECLARATION

Funding and/or Conflicts of interests/Competing interests. Authors declare no funding has been availed and also there is no conflict of interests/Competing interest for this research study

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