

Comparative Analysis of Out-Of-Pocket Health Expenditure Across Countries of Different Income Groups*

Cepten Sağlık Harcamalarının Ülke Gelir Gruplarına Göre Karşılaştırılması

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ABSTRACT

The aim of this study is to conduct a comparative analysis of the proportion of out-of-pocket health expenditures (OOPHE) in total health expenditure (THE) for countries across various income groups. The study utilizes data from the World aBank database between 2010 and 2019, compiled and analyzed in Excel. In 2019, there was a 4% increase in the low-income group, an 18% increase in the lower middle-income group, a 63% increase in the upper middle-income group, and a 36% increase in the high-income group when compared to the year 2010. When OOPHE per capita is analysed separately, we can observe that the high-income countries group has the highest expenditure (14%), but it is the group with the lowest share in total health expenditures. Given higher levels of out-of-pocket health expenditures in low- and lower-middle-income countries, significant disparities are apparent among income groups. To ensure more equitable access to healthcare, countries must reduce financial burdens on individuals by understanding the distinctions and implementing appropriate policies.

Keywords: Health Expenditures, Out-of-Pocket Expenditures, High-Income Population, Low-Income Population, Indigency.

ÖZ

Bu çalışmanın temel amacı, farklı gelir gruplarındaki ülkeler arasında cepten sağlık harcamalarının (CSH) toplam sağlık harcamaları içindeki oranlarını inceleyen bir analiz yapmaktır. Bu analiz için kullanılacak veriler, 2010 ile 2019 yılları arasında Dünya Bankası veri tabanından elde edilmiş, daha sonra Excel programı kullanılarak düzenlenmiş ve karşılaştırmalı bir analiz için hazır hale getirilmiştir. Kişi başına yapılan CSH'ler de 2019 yılında 2010 yılına oranla düşük gelir grubunda %4'lük, alt orta gelirli grubunda %18'lik, üst orta gelirli grubunda %63'lük ve yüksek gelirli grubunda %36'lık bir artış meydana gelmiştir. Kişi başına yapılan CSH tek başına incelendiğinde en yüksek harcamanın yüksek gelirli ülkeler (%14) grubunda olduğu görülse de toplam sağlık harcamaları içinde payı en az olan ülke grubudur. Cepten sağlık harcamaları, düşük ve alt-orta gelirli ülkelerde daha yüksek düzeylerde olduğu gözlemlendiğinden, gelir grupları açısından önemli farklılıklar göstermektedir. Ülkeler, bu farklılıkları anlayarak ve uygun politikaları uygulayarak, bireyler üzerindeki mali yükü azaltmak ve sağlık hizmetlerine daha adil erişim sağlamak için çalışmalıdır.

Anahtar Kelimeler: Sağlık Harcamaları, Cepten Harcamalar Yüksek Gelirli Nüfus, Düşük Gelirli Nüfus, Yoksulluk.

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INTRODUCTION

In health economics, three main categories of costs associated with health care are explained in the context of cost-of-illness studies: direct, indirect and non-monetary costs¹. The direct cost category is defined as all monetary or OOPHE resulting from the disease¹. OOPHE takes three different forms: informal payments, direct payments and user fees. Particularly in low- and middle-income countries, factors such as inadequate social security coverage, scarcity of resources, low salaries in health facilities and unstable labour markets lead to a higher incidence of OOPHE.²

The high share of OOPHE in household expenditure can lead to financial problems for households, not only in low- and middle-income countries, but also in high-income countries.³ As a result of the pressure that OOPHE places on household finances, demand for health services may be postponed or go unmet. The consequences of neglecting emergency health care are clear. OOPHE also creates inequalities in health financing. According to WHO (2010), people in low-income countries have to pay a higher percentage of their income out-of-pocket for health services than people in high-income countries. This results in limited access to health services compared to high-income individuals and is caused by income inequality. In addition, OOPHE leads to inequalities in health insurance.⁴ In countries such as the United States, for example, it creates significant inequalities in access to healthcare. Individuals who do not have insurance coverage or have limited coverage often incur higher OOPHE for healthcare services.⁵ Conversely, countries with extensive insurance coverage, coupled with unnecessary use of healthcare services, may reduce healthcare utilization due to OOPHE and have a favourable outcome.⁶ For instance, Turkey has implemented a number of measures to decrease the superfluous use of healthcare services, supply extra resources, and prevent unnecessary healthcare expenses. These measures involve

reducing the cost of medication, implementing a global budgeting system, employing reference pricing, encouraging the use of generic drugs, regulating prescriptions, monitoring the prescription patterns of physicians by the Social Security Institution (SGK), and refining the range of benefit packages.⁷

Examining the ratios of OOPHE healthcare expenditures to total health spending among income groups can assist in identifying countries with the highest healthcare expenses. These findings can aid policymakers in their efforts to enhance access to equitable healthcare services and relieve the financial burden on individuals. Understanding the dynamics of OOPHE healthcare spending is critical not only for policymakers, but also for individuals and households who are responsible for these expenses. Therefore, it is crucial to emphasise the significance of comprehensive health insurance and mechanisms that safeguard against the financial risks associated with healthcare expenses. This study aims to examine and contrast the proportion of OOPHE in total health expenditures across various income groups. In this way, the research will yield valuable information on the financial burden of health care on individuals and households in different economic contexts. Comparisons between countries in different income groups provide an opportunity to understand the effectiveness of health systems and opportunities for improvement. This can help identify best practices across countries and uncover improvement potential. In addition, this study can lay the groundwork for understanding the distribution of Out-Of-Pocket Health Expenditure (OOPHE) among specific income groups in Turkey. This information can assist policymakers in developing targeted solutions to reduce healthcare expenditures.

The first part of this section deliberates on OOPHE, formal payments linked to OOPHE, informal payments, and user contributions. In

the second section, we analyse OOPHE across various income groups, while the third section explores the factors influencing OOPHE.

Out-of-pocket health expenditure (OOPHE)

The World Bank defines OOPHEs as "any direct payment made by households, including tips and in-kind payments, to health care providers for medicines, therapeutic devices and other goods and services, the main purpose of which is to improve or contribute to the improvement of health".⁸ For example, payments made by a patient in a public hospital when purchasing medical equipment and medicines is a OOPHEs. When the Hammurabi Laws, which have been in practice in Mesopotamia since 2000 BC, are analysed, the first applications of OOPHEs stand out. There are articles regulating the payments made to physicians providing the necessary medical knowledge and skills in the provision of healthcare services according to the law.^{9,40} The main purpose of the countries implementing the OOPHEs is to create additional resources and to prevent the moral hazard problem.¹⁰ Increasing the scope of financial protection systems has led to a decrease in OOPHE. However, the macroeconomic problems experienced in the world in the 1970s and the rapid increase in health expenditures led to the search for efficient use of resources and the creation of additional resources. This led to the emergence of new forms of OOPHE such as informal payments and user contributions.⁹ OOPHEs are categorised into three groups: informal, formal and user contributions. While informal payments are referred to as unregistered payments, formal payments are compulsory payments that individuals must make when using health services.¹¹ User contributions are also referred to in the literature under different names such as co-insurance, copayment, fixed idemnity, prepayment and deductible.⁷

Informal Payments

Informal payments can be argued to be paid to equal health service providers to make these services more accessible or to

ensure better quality services (e.g. earlier appointments, the ability to choose a doctor and more). Such payments bypass existing formal rules.¹² These payments are often outside the financial supervision and control of health systems. In addition, they impair the transparency of health policies, undermine trust in the government, and distort the health system by negatively affecting access to and utilisation of health services.⁹ In many countries, informal payments among people are considered morally suspect.¹³ Informal payments become legal in some cases and illegal in others. For example, gifts made as a thank you after a successful surgery are considered legal even though they are informal. However, although it is known that no payment is made legally, making a payment expressed as knife money is an illegal informal payment. Informal payments are handled under three headings as in-kind contribution, cash and gifts. Goods or services such as bed linen, medicines, examinations, medical pure materials, etc. brought by the inpatient patient from outside the hospital are informal payments that occur as in-kind contributions. Payments such as knife money, donations, money made to healthcare personnel during the provision of a health service are considered as cash informal payments.¹⁴

Gifts include payments made to health personnel in the form of chocolate, flowers, gold, clothing, food, etc. before health service delivery or treatment. In some societies, such gifts are considered formal when they are made for gratitude¹³. It is possible to prevent informal payments by implementing long-term strategies. A clear stance of policy makers towards informal payments with a clear political approach will be a priority step towards a solution⁹. In addition, it is thought that increasing the accountability of health workers and hospitals, increasing the salaries of physicians, and practices aimed at increasing the trust of patients, health personnel and the health system will reduce informal payments.¹⁴

Formal Payments

The term OOPHE signifies formal payments made by healthcare service providers. Formal payments comprise payments made to healthcare providers based on rules established by laws and regulations.¹⁵ For instance, payments made to pharmacies, private hospitals, private practitioners, dentists, and laboratories for medications covered by social security are considered formal payments.⁹ Introduction of co-payment for public healthcare services as means of change when formal payments are involved has been found to impose a bigger financial burden on low-income countries. This is so despite the introduction of exemption categories and stop-loss practices to prevent losses.¹⁶

User Contributions

User contributions are implemented to generate additional resources in cases where healthcare expenditures are low or in countries where demand for healthcare services is escalating quickly, thereby reducing costs and enhancing efficiency.¹⁷ An alternative interpretation defines user contributions as fees paid by patients for drugs, consultations and other healthcare services.⁷ Nevertheless, the use of user contributions has both advantages and disadvantages. Although it enables low-income individuals to access healthcare services, it is thought to reduce unnecessary healthcare service utilization, decrease demand for treatment, and enhance the quality of care for at-risk low-income groups.¹⁸ Nevertheless, user contributions may create injustice for people in the low-income group at risk. Due to information asymmetry, patients may struggle to cost-effectively access healthcare services. This system could further burden low-income households, resulting in social exclusion and potential social inequalities.⁷ These are some of the adverse effects of user contributions.

Moreover, one of the most important objectives of user contributions - reducing pharmaceutical expenditures - has not been achieved. Unlike collective insurance, user contributions do not give individuals the

option to choose cheaper medicines.¹⁹ In a study conducted by Asenso-Okyere et al. (1998) in Ghana, it was observed that after the introduction of user contributions, individuals tried to self-medicate with medicines instead of health services in order to pay less user contributions.¹⁹

OOPHEs of Low, Middle and High Income Group Countries

Many middle and upper-middle-income countries dedicate budgetary resources towards offering fundamental healthcare services to significantly OOPHEs.²⁰ Low and middle-income nations report relatively higher OOPHEs compared to high-income countries.²¹ The population in low-income countries and some individuals in middle-income nations continue to rely on OOPHEs to fund vital healthcare services, which is considered an inequitable approach.²² OOPHEs can lead to increased financial risks and impoverishment for households.

OOPHEs can pose a financial risk and lead to household impoverishment due to their unknown, unavoidable, and necessary nature, which can have adverse effects on financial well-being.²³ Previous studies have demonstrated that financial protection plans for households can reduce OPEs and prevent poverty arising from healthcare expenses.²⁴

All nations worldwide experience diverse challenges and options in financing their healthcare systems.²⁵ As countries approach Universal Health Coverage, it is necessary to evaluate and compare both OOPHEs and healthcare service usage in low and middle-income countries.²⁶ In the year 2005, Switzerland held the highest OOPHEs among OECD nations, with the United States following closely in second place. This amounted to about twice the average of the OECD. Gradually, these expenditures have decreased, suggesting that countries such as Slovenia, Japan, Italy, France, and Sweden are more technically efficient than others.²⁷ In a study conducted by Yardım and others (2014) regarding the catastrophic and impoverishing effects experienced by households in Turkey due to out-of-pocket health expenditures, the years 2003, 2006,

and 2009, marking the onset of the healthcare transformation program in Turkey, were examined. The study revealed that after the implementation of the healthcare transformation program, the catastrophic and impoverishing effects of out-of-pocket health expenditures on households gradually decreased.

Factors that Affect Out-of-Pocket Health Expenditures

Reducing health inequalities among individuals, social groups, and regions, ensuring fairness in financing, and improving the health of the poor are critical measures for improving the health of a society. Due to the higher number of economically disadvantaged individuals residing in low and middle-income countries, it is evident that OOPHEs may have a greater financial impact on households. Additionally, the inability to cover expenses when required can result in adverse health effects. Hence, the size and distribution of OOPHEs among the impoverished population is of utmost importance.²⁸

The household income level is a crucial factor as the highest proportion of OOPHEs

are made by individuals in the high-income group.²⁹ Additionally, it has been noted that risks of OOPHEs for young children under five years old are lower in even the most affluent households.³⁰ Geographic location also plays a part, with rural and urban residents having varying OOPHE levels.³¹ Multiple studies have demonstrated a positive correlation between an individual's education level and their OOPHEs.³² OOPHEs can be influenced by two categories of factors: micro-level (household or individual level) and macro-level (national or regional). Micro-level factors comprise of income, age-dependent population, unemployment status, location, level of education, health insurance status, overall health status, household size, family head's gender, individual gender, and marital status. On the other hand, macro-level factors include GDP, growth in external debt, the government's fiscal capacity, and unemployment rate.³³

MATERIAL AND METHOD

Objective and Significance of the Study

This study aims to conduct a comparative analysis of OOPHEs among various income groups. Our findings suggest that individuals belonging to low-income groups are the most impacted due to the upward trend of OOPHEs. Conversely, in nations with comprehensive insurance coverage and superfluous healthcare service usage, OOPHEs act as a deterrent to healthcare utilization³⁴ and thus have a favourable impact. Therefore, while battling increasing OOPHEs, countries ought to appraise the income level and insurance coverage of their corresponding populations. This study will provide a comparison of OOPHEs across low-income, lower-middle-income, upper-middle-income, and high-income country groups, aiming to reveal the levels of

insurance coverage employed by the countries.

Data Collection and Analysis

The data collection instrument utilized to gather data in this study was the World Bank database from 2010 to 2019. For consistency purposes, the significant data analyzed in this study were gathered from the World Bank database for a duration of 10 years between 2010 and 2019. These years were chosen due to the availability of the latest data for 2019, as well as the regular data starting from 2010. Moreover, they allow for observing changes over a broader time span.

The World Bank database was used to acquire data, which was then transferred to an Excel program for comparative analysis. Furthermore, technical term abbreviations were explained upon their first usage. In

order to analyze OOPHEs, countries have been classified into four categories based on the World Bank's income classification, which relies on Gross National Income (GNI) per capita. These categories include low-income group (LI), lower-middle-income group (LMI), upper-middle-income group (UMI), and high-income group (HI) countries. For the fiscal year 2024, countries are grouped according to their income levels using the World Bank Atlas method. The income classifications for these categories are as follows (World Bank, 2023).³⁹

1. **Low-Income Economies:** These are countries with a Gross National Income (GNI) per capita of \$1,135 or less in 2022.
2. **Lower Middle-Income Economies:** This category comprises countries with a GNI per capita ranging from \$1,136 to \$4,465.

3. **Upper Middle-Income Economies:** These are countries with a GNI per capita between \$4,466 and \$13,845.

4. **High-Income Economies:** High-income economies are defined as countries with a GNI per capita of \$13,846 or more.

Ethical Approval

Ethics committee approval is not required because secondary data has been used in the study.

Limitations of the Study

In this study, income groups were analysed only in terms of OOPHE/THE. Although it was aimed to reach all countries as a population, 162 countries with complete data from 217 countries were reached. This constitutes the limitation of the study.

RESULTS AND DISCUSSION

Table 1. OOPHE-Related Data for Income Groups

	Groups	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
OOPHE per Capita (\$)	LI	47,55	49,51	45,92	50,00	49,61	51,04	51,43	50,62	47,77	49,40
	LMI	118,61	120,52	126,18	139,24	135,80	139,28	143,70	133,07	136,65	140,08
	UMI	203,00	215,28	235,45	250,25	257,24	260,20	272,46	290,87	310,32	331,19
	HI	649,32	671,65	697,02	718,57	737,71	763,93	794,60	817,34	854,53	881,06
OOPHE/THE	LI	51%	50%	50%	51%	48%	48%	47%	47%	46%	47%
	LMI	57%	56%	55%	57%	54%	54%	53%	50%	49%	49%
	UMI	34%	33%	33%	33%	32%	31%	32%	32%	32%	32%
	HI	15%	15%	15%	15%	14%	14%	14%	14%	14%	14%
OOPHE/GDP	LI	3%	3%	2%	3%	3%	3%	3%	3%	3%	3%
	LMI	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
	UMI	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
	HI	1%	1%	1%	1%	1%	1%	2%	2%	2%	1%
Insurance Coverage Rates	LI	37	37	37	37	37	38	38	42	42	42
	LMI	47	47	47	47	47	52	52	55	55	58
	UMI	68	68	68	68	68	74	74	77	77	77
	HI	80	80	80	80	80	82	82	82	82	83

Table 1 displays the share of per capita OOPHEs in total per capita health expenditures (THE). When examining per capita OOPHEs alone, high-income countries have the highest expenditure (14%), but they have the lowest share in total health expenditures. Low-income (47%) and lower-middle-income group countries (49%) have the highest share of OOPHEs in THE.

During this period, there was an increase of 4% in low-income countries, 18% in lower-middle-income countries, 63% in upper-middle-income countries, and 36% in high-income countries. As expected, the highest per capita OOPHEs occurred in high-income countries. In 2019, the per capita OOPHEs were \$882 in high-income countries and \$49 in low-income countries. When considering only OOPHEs, high-income countries have

the highest OOPHEs. However, low-income countries have a higher share of OOPHEs in GDP. Universal Health Coverage is a system that allows individuals to access health services when and where they need them

without suffering financial hardship or facing catastrophic health expenditures. In 2019, the insurance coverage rate in high-income countries was 83%, while in low-income countries, it was 42%.

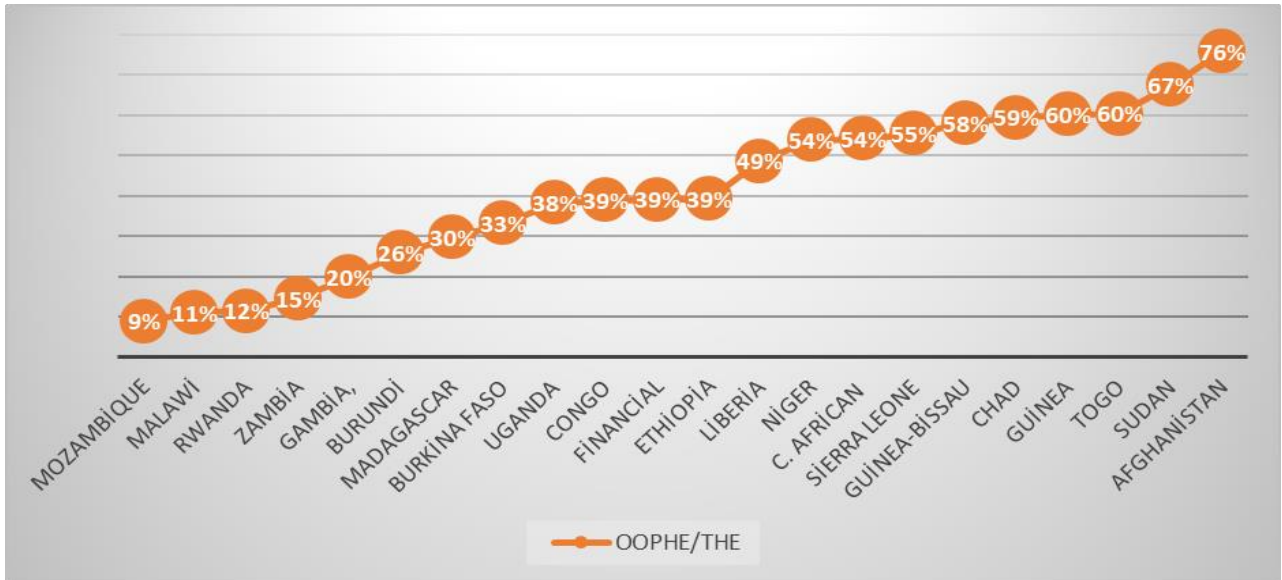


Figure 1. Ratio of OOPHEs to THE in Low-Income Countries

Figure 1 shows the average ratios of OOPHEs to THE in low-income countries between 2010 and 2019. Mozambique, Malawi, Rwanda, and Zambia are countries where the OOPHEs to THE ratio is below 20%. Countries with OOPHEs to THE ratios above 50% include Niger, the Central African Republic, Sierra Leone, Guinea-Bissau, Chad, Guinea, Togo, Sudan, and Afghanistan.

countries between 2010 and 2019. Solomon Islands, East Timor, Vanuatu, Papua New Guinea, Eswatini, Samoa, Lesotho, Sao Tome and Principe have OOPHEs to THE ratios below 20%. Senegal, Mauritania, Morocco, the Philippines, Nepal, Cambodia, Egypt, the Arab Republic of India, Pakistan, Tajikistan, Bangladesh, Cameroon, Nigeria, and Myanmar have OOPHEs to THE ratios above 50%.

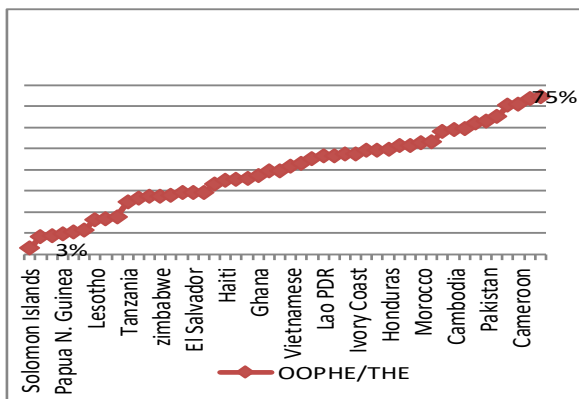


Figure 2. Ratio of OOPHEs to THE in Lower-Middle-Income Countries

Figure 2 presents the average ratios of OOPHEs to THE in lower-middle-income

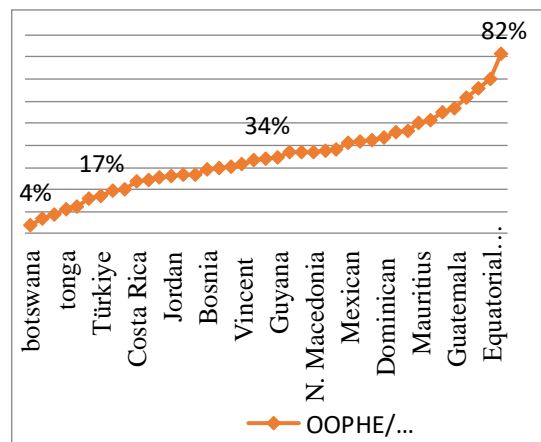


Figure 3. Ratio of OOPHEs to THE in Upper-Middle-Income Countries

Figure 3 displays the average ratios of OOPHEs to THE in upper-middle-income

countries between 2010 and 2019. Botswana, South Africa, Namibia, Tonga, Thailand, Colombia, Turkey have OOPHEs to THE ratios below 20%. St. Lucia, Iraq, Guatemala,

Georgia, Azerbaijan, Equatorial Guinea, and Armenia have OOPHEs to THE ratios above 50%.

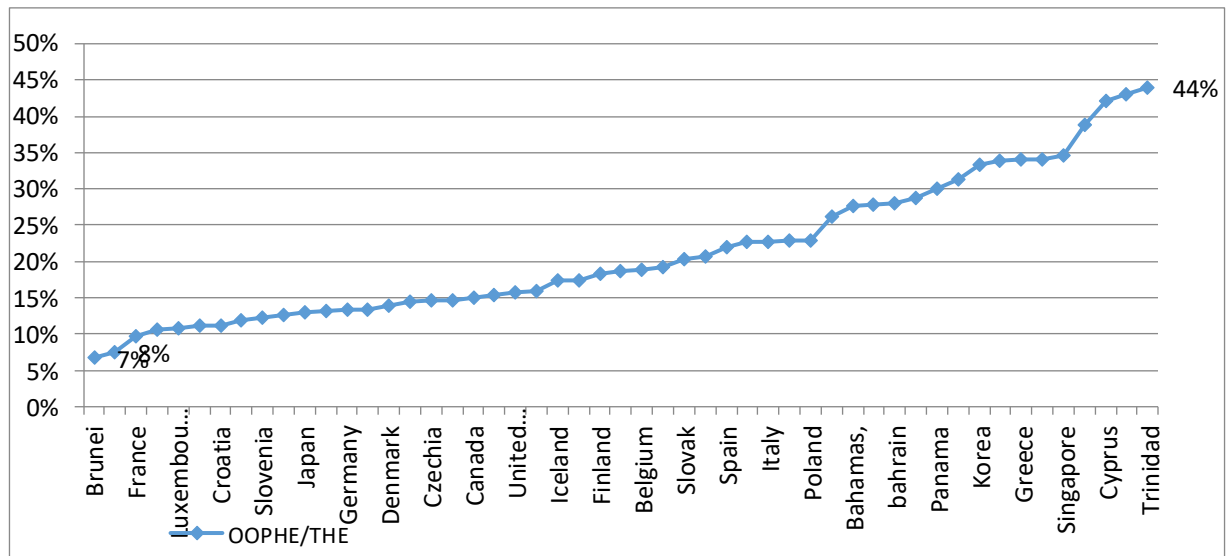


Figure 4. Ratio of OOPHEs to THE in High-Income Countries

Figure 4 shows the average ratios of OOPHEs to THE in high-income countries between 2010 and 2019. The countries in this group have similar OOPHE to THE ratios.

The research supports existing literature. Low-income countries often face significant challenges in providing affordable health care to their populations. OOPHEs in these countries tends to be relatively high due to limited public health service coverage and financial resources. In addition, although low-income households have been shown to spend less on OOPHEs, proportionally speaking they spend more.³⁵ The ratio of OOPHEs to total health expenditures is often used as an indicator of financial protection at the national level. The World Health Organisation (WHO) recommends a maximum out-of-pocket threshold of 15-20% of total health expenditure as a requirement for financial protection.⁵ According to a study conducted by Eregata et al. In low-income countries such as Malawi, Burkina Faso and Mozambique, OOPHEs constitute a significant proportion of total health expenditures, ranging from 30 to 60 per cent. Lower middle-income countries are also in the group with high OOPHEs/THE ratios like low-income country groups.³⁶ Rahman et al.

The country with the lowest ratio is Brunei (7%), while the highest ratio is Trinidad and Tobago (44%). There are no countries in this group with OOPHEs exceeding 50%.

(2018) found that OOPHEs account for approximately 20 to 30 per cent of total health expenditures in countries such as India, Indonesia and Nigeria. These countries often struggle with limited public health infrastructure and inadequate insurance coverage, resulting in a higher burden on individuals. Upper-middle-income countries show greater capacity to invest in health infrastructure and social protection programmes. However, OOPHEs is still a significant burden on the population.³⁷

According to OECD Health Statistics (2021), OOPHEs account for less than 10 per cent of total health expenditure in countries such as Germany, Canada and the United Kingdom.³⁸ A study by Chen et al. Focusing on countries such as Brazil, China and South Africa, it was revealed that OOPHEs ranged from 10 to 20 per cent of total health expenditures. While these countries have made progress in expanding health coverage, gaps remain, especially for vulnerable populations. High-income countries generally offer more comprehensive health

insurance and social safety nets and have lower rates of OOPHEs/THE. In these countries, public financing mechanisms such as taxation and compulsory health insurance play an important role in reducing the burden on individuals.³⁹ In 2019, the proportion of the population covered in high-income countries was 83 per cent, compared to 42

per cent in low-income countries. Although there is almost a 2-fold difference, this situation poses a threat to low-income countries. Countries with low insurance coverage will have to make OOPHEs in case of need. This situation will push them into poverty on the one hand and make it difficult to access health services on the other.

CONCLUSIONS AND SUGGESTIONS

In this study, a comparative analysis of the share of OOPHEs in total health expenditure in terms of different income groups has been carried out. For the analysis, data obtained from the World Bank database between 2010-2019 were used and divided into four different groups as low, lower middle, upper middle and high income. As a result of the analysis, it was observed that there was an increase of 4% in the low-income group, 18% in the lower middle-income group, 63% in the upper middle-income group and 36% in the high-income group in 2019 compared to 2010. When OOPHEs per capita are analysed, it is revealed that the highest level of expenditure is in high-income countries (14%), but these countries have the lowest share in total health expenditures. Countries in the low-income (47%) and lower middle-income (49%) groups are the country groups with the largest share of OOPHEs in total health expenditures. When OOPHEs/THE ratios are analysed, Mozambique (9%) among low-income countries, Solomon Islands (3%) among lower middle-income countries, Botswana (4%) among upper middle-income countries and Sultanate of Brunei (7%) among high-income countries have the lowest ratios. When OOPHEs/THE ratios are analysed within all country groups, Equatorial Guinea (70%), Bangladesh (71%), Cameroon (71%), Nigeria (74%), Myanmar (75%) and Afghanistan (76%) are the countries with the highest rates. Armenia is the country with the highest rate of OOPHEs in THE with 82 per cent. OOPHEs show significant differences across income groups, with higher burdens in low- and lower-

middle-income countries. By understanding these differences and implementing appropriate policies, countries can work to reduce the financial burden on individuals and provide more equitable access to health services.

High OOPHEs can lead to financial hardship, limited access to essential health services and increasing inequalities. In countries with high OOPHEs/THE ratios, such as Equatorial Guinea (70 per cent), Bangladesh (71 per cent), Cameroon (71 per cent), Nigeria (74 per cent), Myanmar (75 per cent), Afghanistan (76 per cent), Armenia (82 per cent), health policy makers and governments should consider taking the following measures to ensure that low-income individuals do not face negative consequences

1. Strengthen Universal Health Coverage systems: Expanding public health care coverage and providing financial protection for all citizens can significantly reduce OOPHEs.

2. Implement social health insurance programmes: Introducing compulsory health insurance schemes or strengthening existing ones can help distribute the financial burden more equitably.

3. Invest in primary health care: Focusing on primary health care and preventive measures can reduce the need for expensive treatments and subsequently reduce OOPHEs

4. Increasing transparency in health care: Transparent pricing mechanisms, cost control measures and standardised billing practices

can enable individuals to make informed health care decisions and avoid high OOPHEs costs.

OOPHEs vary significantly across income groups, with higher burdens being faced by low- and lower-middle-income countries. By

recognising these differences and implementing appropriate policies, countries should work to reduce the financial burden on individuals and provide more equitable access to health service.

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