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Unraveling the Vicious Circle of High Out-of-Pocket Health Expenditure in India

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Abstact

Education and healthcare are vital for a country's growth and development. A healthy, well-educated population is essential for global competitiveness. Health plays a vital role in driving human development and well-being. Poor health can decrease productivity, hinder economic growth, and increase healthcare costs. While India's healthcare sector has made progress, addressing the disease burden remains a crucial focus for further improvement A study by the **World Health Organization** pointed out that high OOPE impoverishes 55 million people in India annually (**2022**).**The National Health Accounts (NHA)**, explain that, from 2014-15 to 2021-22, government health expenditure as a percentage of GDP increased from 1.13% to 1.84%. The share of overall government spending dedicated to health grew from 3.94% to 6.12%, demonstrating a strong commitment to public health. During this period, out-of-pocket expenditure (OOPE) significantly decreased, and per capita health spending tripled, rising from Rs. 1,108 to Rs. 3,169.

This paper attempts to analyzes trends in public health spending and high out-of-pocket expenses in India, particularly post-pandemic.This study's results show that socialsecurity expenditure significantly reduces out-of-pocket health expenses compared to private health insurance.

Keywords: Public Healthcare, Out of Pocket Health expenditure, Development Trajectory idiosyncratic shocks.

Introduction

"As a state of complete physical, mental and social well-being" stated by WHO, which came into force on April 7, 1948. This definition sees health as being dependent on the presence or absence of disease. An individual is considered healthy if they do not suffer from any disease. Health is essential for economic growth. A healthy population is more productive and can contribute effectively to the workforce. Quality healthcare access reduces disease burdens and improves health outcomes, leading to greater productivity and economic development. Public expenditure on healthcare has a positive impact on the reduction of impoverishment and misery among people. Healthcare accessibility and affordability help in breaking the vicious cycle of poor health. India is currently taking various measures related to human resource development to reap the benefits of the demographic dividend the country is going through.The expansion of an economy and the growth of government sector activity have a significant functional association **(Bhatia, 2011**). According to Crafts, Government institutions and policies play a central role in long-run growth outcomes. It has a positive impact on several growth-inducing factors. Enhancing

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human capital productivity is one of them. Investing in health, education, and social security isn't just smart; it's transformative! These investments generate positive ripple effects that can pave the way for sustainable growth in our country, benefiting everyone in the process.

Currently, global investment in health and education is inadequate and misallocated, particularly in developing and underdeveloped countries. Health is a crucial factor in economic development. Development should focus more on improving the quality of life and the freedoms we experience."Health contributes to a person's basic capabilities to function" (**Sen A. 1985**). The global spending on healthcare in real terms over the past two decades was US $ 8.5 trillion. But it was not equally distributed all over the world. Government Expenditure on healthcare is found high in developed countries and low in underdeveloped countries. However, the share of public expenditure on healthcare in upper-middle countries had increased during the same period (**W.H.O. report,2021**). According to the **NHA 2016-17** data, India allocates approximately 3.8% of its GDP to healthcare, which is relatively lower than what is spent in other comparable low and middle-income economies. The reliance on out-of-pocket (OOP) spending to finance healthcare has unequivocally contributed to catastrophic expenses, increased incidence of household poverty due to untreated illnesses, and avoidable mortality (**Mahal et al., 2001**). Notably **Karan et al,** have shown that publicly funded health insurance schemes for the poor are ineffective at alleviating financial burdens from illness (2017). **Selvaraj's research** similarly confirms that OOP payments constitute 11.2% of total household expenditures, leading to approximately 55 million people falling into poverty annually (2018).

The State of India's Health Security

The COVID-19 pandemic has augmented the borderless and globalized nature of health threats, making preparedness a watchword for policymakers, public health experts, and healthcare professionals worldwide.

Table 1: Inter-country Global Health Security Index

Countries	Rank	Score
1. USA	1	75.9
2. Australia	2	71.1
3. Finland	3	70.9
4. China	52	47.5
5. India	66	42.8
6. Bangladesh	95	35.5
7. Shri Lanka	105	34.1
8. Pakistan	130	30.4

Source: GHSI, 2021

According to the above table, India ranked 66 out of 195 countries with an overall score of 42.8. The United States of America ranked first on the index with a score of 75.9 followed by Australia and Finland. Global health spending is increasing, especially in middle-income countries, yet many individuals still bear significant out-of-pocket expenses. Health is a human right and all countries need to prioritize

efficient, cost-effective primary health care as the path to achieving universal health coverage and sustainable development goals. (**Soucat A, 2019**)

Objectives

1. To study the trend of high OOPE in India.
2. To study the association between OOPE and Social Security Expenditure.
3. To study the association between OOPE and government health expenditure.

Literature Reviews

A study by **Robert Fogel** established the effect of health on economic development and growth and vice versa (**1964**). A South Korean study (**2002)** co-related the occurrence of heart attacks, strokes, and several cognitive diseases with lower socio-economic status.

According to a study conducted by **Dercon et al.,** households in developing countries often face several shocks that may occur randomly to reduce their well-being like illness, death, morbidity, natural disaster, etc. These events are more likely to expose households to vulnerability and chronic poverty. These kinds of shocks were regarded as idiosyncratic shocks. It had a wider effect on the vulnerability of households because of their sensitivity to food prices, high loans, labour productivity and capital accumulation according to the study (**2005**).

In another study conducted by **Purohit C. B.,** The study assessed the efficiency of social sector spending in India, focusing on health and education in major states, using both parametric (stochastic frontier analysis) and non-parametric methods (free disposal hull).The findings indicate significant potential for improving the efficiency of public health spending compared to education. It was suggested that state-level disparities could be reduced through resource reallocation and increased private-sector participation. The study recommended various strategies to enhance efficiency, including reallocating manpower and resources, increasing budgetary emphasis, and encouraging private-sector involvement. These strategies were estimated to potentially improve health sector efficiency by nearly 20% in poorer states,

According to (**Mahal et al**.) Dependence on OOP spending to finance health care has Contributed to catastrophic expenses and increased incidence of household Poverty due to illness, untreated ailments and an increase in avoidable Mortality (**2001**). Studies conducted by **Karan et al**. also Indicate that publicly funded health insurance schemes for the poor have not been particularly effective in reducing the financial burden that households face owing to illness (**2017**).

Publicly funded health insurance schemes designed for the poor have not been very effective in alleviating the financial burden that households face due to illness (2017).

In another study by **Singh S. and Dr. Anjali (2021) Public Expenditure on Health in India: A Review),** In their study, researchers examined public health expenditure in India, including medical and public health, family welfare, and other health-related demands from the central and state government. From 2009-10 to 2018-19, there was a minor increase in total government health expenditure and per capita spending, rising from 621 rupees to Rs. 2085. Economic reforms shifted focus

towards the private sector, affecting public spending on health. The establishment of NITI Aayog and the abolishment of the Planning Commission also influenced expenditure patterns. Public health expenditure remained around 1% of GDP during the study period, with a slight increase in per capita spending and a consistent dominance of revenue expenditure over capital spending.

Indian households spent over INR 120 billion on healthcare expenditure **(CMIE-CPHS)** according to the Economy's Consumer Pyramid household survey. Urban India reported for 42.3% of total healthcare expenditure while the remaining 57.7 % of the expenditure came from rural India (2022).

A study conducted by **Albadrani M. and Sriman S. in 2022** explores the financial burden of healthcare costs on Indian households. The article highlights that out-of-pocket (OOP) health expenditures account for approximately 62.6% of total health expenditure in India, one of the highest rates in the world. Utilizing data from the NSSO website's Social Consumption in Health (2014), the study analyzes the impact of OOP health expenditures on household poverty. The findings reveal that the poverty headcount increased from 16.44% to 19.05% after households made OOP payments, pushing approximately 6.47 million households into poverty. Factors contributing to this increase in impoverishment due to OOP health expenditures include medium and large household sizes, longer hospital stays, the use of private health facilities, and the presence of chronic illnesses.

. According to **Deol Taran** high OOPE impoverishes nearly 55 million Indians annually and more than 17 % of households incur catastrophic levels of health expenditures every year **(W.H.O. Report, 2022).**

Research Methodology

The study utilized secondary data analysis, collecting information from a variety of sources, including the Global Health Security Report, the Economic Survey of India, reports from the World Health Organization, as well as various documents from CEDA-CMIE and National Health Accounts. This was primarily a descriptive study aimed at exploring and analyzing trends and growth rates within the collected data. Appropriate statistical tools were employed to analyze the information effectively.

H_0: There is no correlation between OOPE and Social Security Expenditure

H_1: There is a correlation between OOPE and Social Security Expenditure

$H_{0:}$ There is no relationship between OOPE & Government Health Expenditure

H_1: There is a relationship between OOPE & Government Health Expenditure

Table 2 : The trend of Out-of-Pocket Health Expenditure (as a Percentage of THE) in India**

Year	OOPE*	Social Security Expenditure	Private Health Insurance
2015-16	60.6	6.3	4.2
2016-17	58.7	7.3	4.7
2017-18	48.8	9	5.8
2018-19	48.2	9.6	6.6
2019-20	47.1	9.3	7.0
Growth Rate	-22.27 %	47.61%	66.66%

Source: Data taken from the National Health Account, 2020

Government health expenditure as a percentage of total spending has increased from 4.7% to 6.9% in FY 22. Concurrently, out-of-pocket health expenditure (OOPE) decreased from 62.6% in FY 14 to 47.1%. OOPE is the amount households pay directly for health care when services are not provided for free or when individuals lack insurance coverage.

The data also showed a strong negative correlation between OOPE and both social security expenditure on health and private health insurance, with social security expenditure having a greater impact (-0.9787) compared to private health insurance (-0.9593).

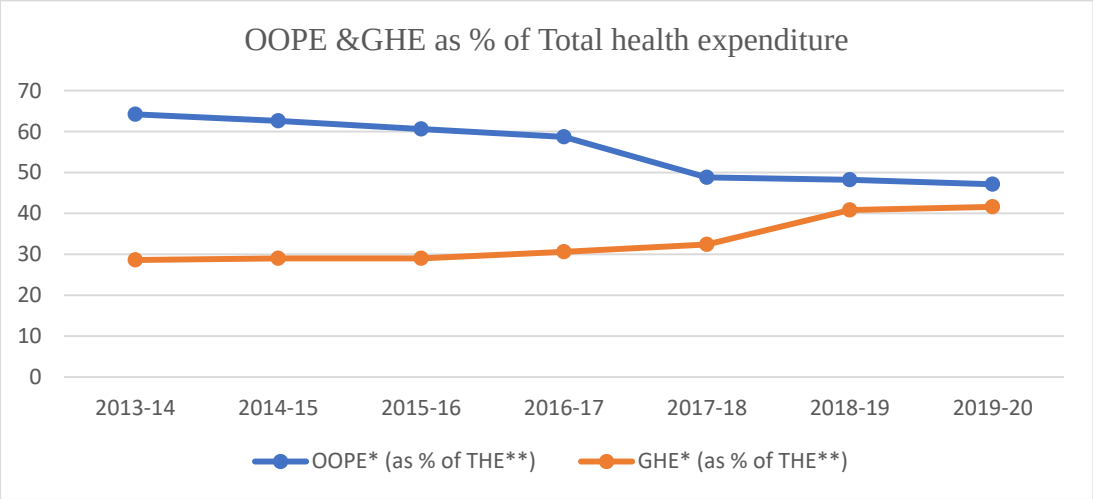
Table 3 : Trend of Out-of-Pocket health expenditure and public health expenditure

Year	OOPE* (as % of Total health Expenditure)	Government health Expenditure (as % of Total Health Expenditure)
2013-14	64.2	28.6
2014-15	62.6	29
2015-16	60.6	29
2016-17	58.7	30.6
2017-18	48.8	32.4
2018-19	48.2	40.8
2019-20	47.1	41.6

Source: Economic Survey,2022-23 & National Health Account, 2020

**Out-of-Pocket Health Expenditure*

Figure 3.1



The table above shows the connection between out-of-pocket expenditure (OOPE) and government health expenditure as a percentage of total health expenditure OOPE dropped from 58.7% in 2016-17 to 48.8% in 2017-18, due to a 2.2% increase in government health expenditure. This increase was prompted by the 14th Finance Commission's recommendation to raise states' share in the divisible tax pool from 32% to 42%, which is also reflected in the Human Development Index (HDI) scores after the implementation of the recommendations (**"states should increase their spending on health to more than 8% of their budget by 2022")** resulting in

significant decaling in out-of-pocket health expenditure but still low compare to developing economies. This indicates that investing in government health expenditure significantly reduces the financial burden on households' income. The data presented in the table shows that for every 1-unit increase in government health expenditure, out-of-pocket health expenses decrease by 1.1459 units. In India, increasing investment in the social sector is anticipated to improve health indicators and education levels, which will ultimately enhance employability. The unemployment rate is still high because investment and employment opportunities are not expanding, due to political instability and a slowdown in the world economy; policy paralysis is also one of the reasons for it within the country itself.

Findings

The study revealed a strong negative correlation between out-of-pocket health expenditures and both social security and private health insurance expenditures on health. Social security expenditures (-0.9787) had a greater impact than private health insurance (-0.9593).

to test the relationship between OOPE and Government Health Expenditure using the simple regression by formatting the simple equation between them taking OOPE(Y) as a dependent variable and Government health expenditure(X) as an independent variable

$\hat{Y} = b_0 + b_1 x$

$\hat{Y} = 93.72 - 1.1459X$

The R-squared (R^2) value is 0.7629, which means that 76.3 of the variability of Y is explained by the X variable in this model.This model founda highly negative correlation between them by -0.8734.The slope value (b1)-1.1459 indicates that to decrease the out-of-pocket health expenditure by 1.1459 percent, government health expenditure must be increased by 1 percent.The P-value is 0.01021 ($\alpha = 0.05$), leading us to reject the null hypothesis and accept the alternative: a relationship exists between out-of-pocket and government health expenditure.

Conclusion & Suggestion

The Vicious circle of high Out-of-Pocket health expenditure

In India, out-of-pocket health expenditure surpasses 40% of total health spending, among the highest worldwide. A WHO report indicates that this spending, primarily on medicines, constitutes two-thirds of health costs, pushing over 55 million people into poverty annually and significantly reducing household incomes, increasing their vulnerability. It further lowered the level of domestic savings with households as people in the absence of health insurance of both or any one type (Public & Private health insurance) were compelled to spend out of their savings. It will further contribute to the rise in poverty, Impoverishment and vulnerability of the families. It also gives rise to disease burden and high out-of-pocket health expenditure. This might create a vicious cycle of high out-of-pocket health expenditures.

India was among the 10 worst-performing countries in prioritizing health in the government budget at both the central and state levels **(Economic Survey, 2021**). India is still ranked at 135 in the category of middle human resource development

countries. Therefore, there is a lot of potentials to invest in human resource development if we want to achieve sustainable development goals and goals for **"Viksit Bharat".** There is a need to increase public health spending in a time-bound manner and expand health insurance coverage to include outpatient care. Low public health investment, poor infrastructure, lack of access to Medicare and diagnostic services, and rising healthcare costs lead to high out-of-pocket expenditures and state-to-state variations. To break this cycle, we need to reduce healthcare costs on the supply side and increase health insurance coverage on the demand side.

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