

Government and Out-of-Pocket Health Expenditure in India: Trends and Growth Patterns, 2000–2023

Banashree Choudhury¹

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Abstract

Health expenditure is an essential component of a country's health financing system. In India, although government spending on health has increased over time, out-of-pocket expenditure (OOPE) continues to account for a substantial part of healthcare spending. This study examines the trends and growth patterns of domestic general government health expenditure (DGGHE) and OOPE in India during 2000–2023. The study employed secondary data obtained from the World Bank's World Development Indicators. Descriptive statistics, annual growth rates and compound annual growth rates (CAGR) have been employed to evaluate changes in health expenditures per capita over the study period. The findings of the study reveal that both DGGHE and OOPE per capita increased during the study period but at an accelerated pace for DGGHE, a CAGR of 9.23% as against 4.01% for OOPE. DGGHE per capita rose from PPP US \$17.75 in 2000 to PPP US \$135.12 in 2023, whereas OOPE per capita rose from PPP US \$61.55 to PPP US \$151.95 during the period from 2000 to 2023, respectively. Additionally, the proportion of OOPE in current health expenditures also declined from 71.70% in 2000 to 43.89% in 2023, although OOPE remained a major component of health expenditure. In sum, the findings indicate that domestic general government health expenditure grew at a faster pace than OOPE, but households continued to be a significant contributor to healthcare expenditure in India.

Keywords: Domestic General Government Health Expenditure, Out-of-Pocket Expenditure, Health Financing, Compound Annual Growth Rate (CAGR), Health Expenditure

1. Introduction

Attainment of Universal Health Coverage (UHC) is an important goal of health systems worldwide, whereby individuals and households can receive quality healthcare services without bearing a heavy financial burden on their financial resources and livelihoods (Kamath et al., 2025). The Sustainable Development Goals (SDGs),

¹ Research Scholar, Department of Economics, Gauhati University, Guwahati, Assam, India
✉ Banashree Choudhury, E-mail: banashreechoudhury38@gmail.com

particularly Goal 3 and Target 3.8 emphasize the importance of achieving UHC as a part of realizing improved health and well being (Kieny et al., 2017). Financial risk protection is an important dimension of UHC, as it aims to protect individuals and households from financial hardship arising from healthcare payments (Saksena et al., 2014). In this context, the pattern of health financing becomes noteworthy, especially concerning the role of government health spending and out-of-pocket expenditure (OOPE) in financing health services.

Health spending is considered to be crucial for developing a healthy healthcare system, improving health outcomes of people, and enhancing sustainable economic growth (Chhotaray and Sahu, 2026). Although affordable medical assistance is a basic right in an ideal world but financial constraints often do not allow people to obtain necessary services in most of the countries, including India (Chitra, 2024). In recent years, India's healthcare sector has experienced considerable changes, characterized by the introduction of various government initiatives and the rapid growth of the healthcare sector. However, despite being the world's third-largest economy in terms of gross national income, the country continues to face challenges in ensuring equitable access to healthcare services (Chitra, 2024). In light of these arguments, it is relevant to study the evolving trend of India's health spending patterns. In India, out-of-pocket expenditure (OOPE) continues to be an important source of healthcare financing, while government health expenditure has also increased over time. As both government spending and out-of-pocket expenditure play a significant role in health care financing, this paper explores the trends and growth patterns of domestic general government health expenditure (DGGHE) and OOPE in India during 2000–2023. Using secondary data from the World Bank's World Development Indicators, the analysis relies on descriptive statistics, annual growth rates, and compound annual growth rate (CAGR) to capture these patterns.

2. Review of Literature

The issue of health financing has been a matter of grave concern in India, particularly because of the relatively limited role of public spending and the continued dependence on out-of-pocket expenditure (OOPE). Former studies have urged the need to enhance public spending so that access to health can be improved and people do not have to bear the burden. Garg and Karan (2009), using National Sample Survey data for 1999–2000, found that OOPE imposed a considerable burden on households and contributed to an increase in poverty, with the effects being greater in poorer states and rural areas. They also found that expenditure on drugs constituted a major part of OOPE. Studies were also performed to understand the continued serious problem of OOP on health financing in India. Jayakrishnan et al. (2016) have conducted a study on two nationally representative data sets - NSS 2004 and NSS 2014. Expenditure on both the out-patient and in-patient has increased greatly and over 80% of healthcare costs are borne by OOP payments. Similarly, Sriram and Khan (2020), found that enrolment in public health insurance programmes for poor households increased hospitalisation but did not significantly reduce inpatient OOPE. The authors therefore highlighted the need for broader coverage, including outpatient services and coverage for all family members. More recent research has also examined the composition and distribution of OOPE. Based on the National Sample Survey from 2018, Ambade et al. (2022) indicated that expenses incurred on medicine items remained the largest part of OOPE, particularly for Outpatient Care, wherein medicine charges amount to 60.3% of OOPE. Doctor's

consultation and charges paid for diagnostic tests and investigations were observed to be non-uniform among different socio-economic strata, thus reflecting varying burden of expenditure on health. A systematic review by Kamath et al. (2025) similarly found that OOPE remains a significant component of healthcare financing in India and identified factors such as economic status, place of residence, source of care, age, gender, healthcare costs and insurance coverage as important areas associated with OOPE. Recent evidence has also pointed towards a gradual increase in public health financing alongside a decline in the relative share of OOPE. Chhotaray and Sahu (2026) examined health-financing indicators for India from 2000 to 2022 and reported an increase in government health expenditure per capita, while the share of OOPE in current health expenditure declined from 71.70% to 45.98%. Overall, the existing literature shows that India has experienced changes in its health-financing structure, but OOPE continues to remain an important source of healthcare financing and a concern for households. Given the importance of government and out-of-pocket health expenditure in shaping the health financing system and their implications for households, it is essential to examine their long-term trends and growth patterns in India. Against this background, the present study examines the trends and growth patterns of domestic general government health expenditure (DGGHE) and out-of-pocket expenditure (OOPE) in India during 2000–2023, with particular focus on their per-capita levels, annual growth rates, and compound annual growth rates (CAGR).

3. Objectives of The Study

The present study is guided by the following objectives:

- i) To examine the trends in per-capita domestic general government health expenditure (DGGHE) and out-of-pocket expenditure (OOPE) in India during 2000–2023.
- ii) To analyse the annual growth patterns and compound annual growth rates (CAGR) of DGGHE and OOPE in India during 2000–2023.

4. Methodology

The study is based on secondary data obtained from the World Bank's World Development Indicators (WDI) covering the period 2000 to 2023. The study focuses on two main indicators: domestic general government health expenditure (DGGHE) per capita and out-of-pocket expenditure (OOPE) per capita. The values are measured in PPP (Current International \$). Per capita current health expenditure (CHE) is also considered to provide a broader context for the analysis.

To examine the changes over time, the study uses descriptive statistics, annual growth rates, and compound annual growth rate (CAGR). Annual growth is calculated as:

$$\text{Growth Rate} = \frac{X_t - X_{t-1}}{X_{t-1}} \times 100$$

where X_t represents expenditure in the current year and X_{t-1} represents expenditure in the previous year. CAGR is used to measure the average annual growth of expenditure over the entire study period. Line graphs are also used to present the trends and annual growth patterns of the selected expenditure indicators. The analysis is descriptive in nature and aims to show how government and out-of-pocket health expenditure have changed and grown over the study period.

5. Results

The present study analysis the trends and growth patterns of per capita domestic general government and out-of-pocket health expenditure in India during the period 2000–2023. It analyses changes in per capita health expenditure, annual growth rates, and compound annual growth rates (CAGR) to understand the changing pattern of health expenditure over the study period.

5.1 Descriptive Statistics

Table 1 presents descriptive statistics for per capita health expenditure in India from 2000 to 2023. The average per capita current health expenditure (CHE) stands at PPP US\$169.79, while domestic general government health expenditure (DGGHE) and out-of-pocket (OOPE) expenditure recorded a mean of PPP US\$49.95 and PPP US\$101.12, respectively. The corresponding median values were PPP US\$152.54 for CHE, PPP US\$42.57 for DGGHE and PPP US\$95.72 for OOPE. The higher mean values relative to the medians suggest that the distributions were influenced by relatively higher expenditure values in the later years. DGGHE recorded a higher standard deviation (PPP US\$33.91) than OOPE (PPP US\$23.98), indicating greater absolute variation in domestic general government health expenditure over the study period. Thus, the descriptive statistics show that OOPE remained higher than DGGHE in both mean and median terms, while the greater variability in DGGHE points to a greater change in government health expenditure over the period.

Table 1: Descriptive Statistics

Indicators	Mean	Median	Standard deviation	Maximum	Minimum
Current health expenditure per capita	169.79	152.54	68.46	346.25	85.84
Domestic general government health expenditure per capita	49.95	42.57	33.91	135.12	17.75
Out-of-pocket health expenditure per capita	101.12	95.72	23.98	151.95	61.55

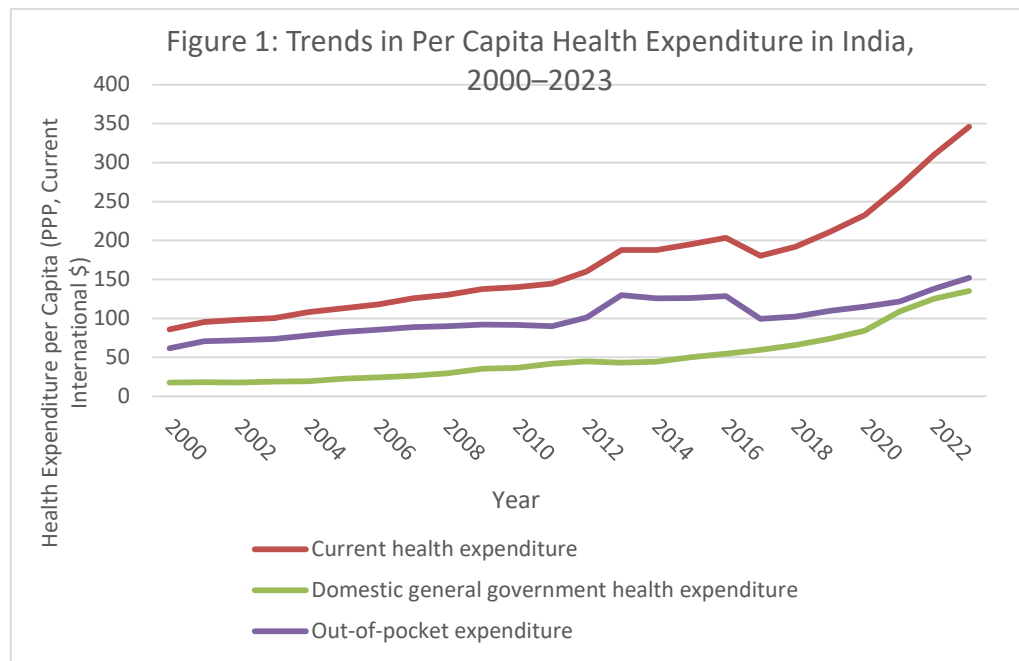
Source: Author's calculation based on data compiled from WDI

Note: All values are in Current International \$ (PPP)

5.2 Trends in Government and Out-of-Pocket Health Expenditure

The trends in per capita health expenditure in India during 2000–2023 are presented in Figure 1. The figure shows an overall upward movement in the per capita current health expenditure, domestic general government health expenditure, and out-of-pocket expenditure (OOPE) over the study period. However, the pathways followed by domestic general government health expenditure and OOPE differ considerably. In 2000, OOPE per capita was substantially higher than government health expenditure per capita, at PPP US\$61.55 and PPP US\$17.75, respectively. This difference persisted for most of the study period, although it reduced quite significantly with the passage of time. A distinct change is observed after 2017, when government health expenditure

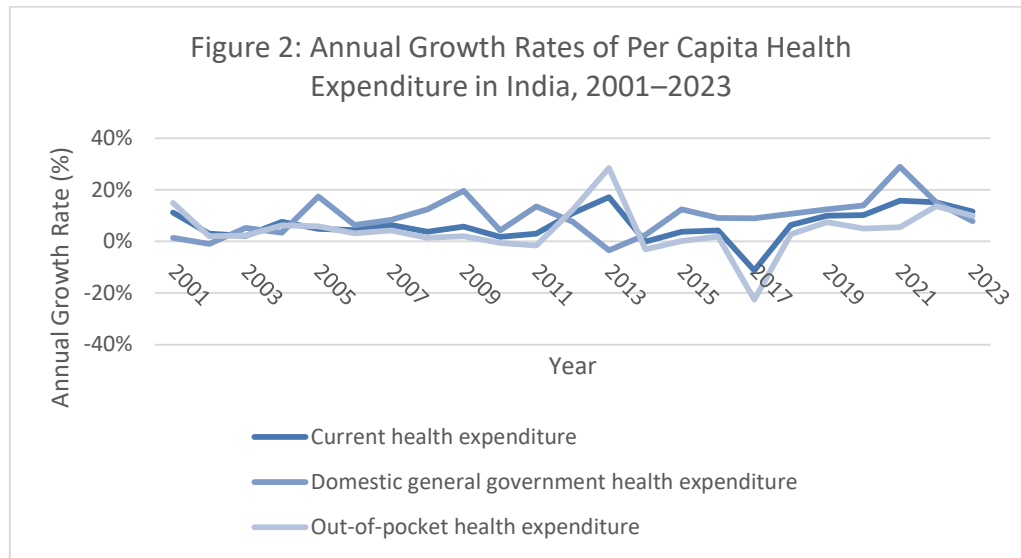
rose at an accelerating rate, while OOPE, after experiencing a sharp decline in 2017, continued an upward trajectory at a comparatively slower pace. By 2023, domestic general government health expenditure rose to PPP US\$135.12, compared with PPP US\$151.95 for OOPE. Thus, although OOPE remained higher in absolute per capita terms, the substantial narrowing of the gap indicates the increased role of government in overall health financing in India.



Source: Author generated based on the data of WDI

5.3 Annual Growth Patterns

Figure 2 and Table 2 present the annual growth rates of per capita health expenditure in India from 2001 to 2023. The figure shows considerable year-to-year variation in the growth rates of domestic general government health expenditure and out-of-pocket expenditure. OOPE shows greater fluctuations over the study period.



Source: Author generated based on the data of WDI

OOPE recorded its highest annual growth of 28.46% in 2013 and its largest decline of 22.61% in 2017. DGGHE, on the other hand, showed relatively stronger growth in the later years, reaching its highest annual growth of 28.98% in 2021. The year 2017 stands out, with OOPE declining sharply while DGGHE continued to grow. CHE generally followed a moderate growth pattern, although negative growth was observed in some years. Overall, the annual growth rates show that DGGHE recorded stronger growth than OOPE over the study period, while OOPE exhibited greater year-to-year fluctuations.

Table 2: Annual Growth Rates of Per Capita Health Expenditure in India, 2001–2023

Years	Current health expenditure per capita	Domestic general government health expenditure per capita	Out-of-pocket expenditure per capita
2001	11.14%	1.45%	14.86%
2002	2.98%	-0.91%	1.96%
2003	2.19%	5.30%	2.26%
2004	7.56%	3.35%	6.18%
2005	4.84%	17.34%	5.80%
2006	4.37%	6.34%	3.10%

2007	6.31%	8.35%	4.19%
2008	3.79%	12.37%	1.34%
2009	5.71%	19.65%	2.06%
2010	1.82%	4.19%	-0.58%
2011	3.05%	13.53%	-1.63%
2012	10.96%	7.56%	12.34%
2013	17.17%	-3.42%	28.46%
2014	-0.05%	2.52%	-3.03%
2015	3.81%	12.47%	0.17%
2016	4.20%	9.07%	1.85%
2017	-11.25%	8.96%	-22.61%
2018	6.40%	10.74%	2.76%
2019	10.01%	12.49%	7.48%
2020	10.23%	13.97%	4.95%
2021	15.74%	28.98%	5.45%
2022	15.14%	15.13%	13.69%
2023	11.62%	7.83%	9.97%

Source: Author's calculation based on the data compiled from WDI

5.4 Long-term Growth Patterns

Table 3: Compound Annual Growth Rate (CAGR)

Expenditure component	2000	2023	CAGR (%)
Current health expenditure per capita	85.84	346.25	6.25%
Domestic general government health expenditure per capita	17.75	135.12	9.23%
Out-of-pocket health expenditure per capita	61.55	151.95	4.01%

Source: Author's calculation based on the data compiled from WDI

Table 3 presents the compound annual growth rate (CAGR) of per capita health expenditure between 2000 and 2023. Current health expenditure recorded a CAGR of 6.25%, while domestic general government health expenditure grew at a higher rate of 9.23%. In comparison, out-of-pocket health expenditure recorded a CAGR of 4.01%. Thus, government health expenditure grew at more than twice the compound annual rate of OOPE over the study period. The higher CAGR of government health expenditure indicates a faster increase in public health spending compared with household out-of-pocket spending during the study period.

6. Discussion

The results suggest a structural change in India's healthcare financing between 2000 and 2023. During the study period, domestic general government health expenditure grew at a CAGR of approximately 9.2%, which was more than double the CAGR of out-of-pocket expenditure (4.0%). A similar decline has also been suggested by Chitra (2024), stating that the proportion of OOPE in total health expenditure decreased considerably, particularly around 2017-18. This is largely in line with the present study, which reported a significant decline in OOPE growth in 2017 while government health expenditure continued to increase. The National Health Policy 2017 set an explicit target of raising government health spending from 1.15% to 2.5% of GDP by 2025, specifically to reduce the burden of out-of-pocket payments on households (Ministry of Health and Family Welfare, 2017). Again, the launch of Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB-PM-JAY) in 2018 provides free hospitalization coverage of up to ₹5 lakh (₹500,000) per family per year to over 100 million poor and vulnerable families (Ministry of Health and Family Welfare, 2024). These strategic policies offer a highly plausible explanation for why government spending accelerated so sharply after 2017 while out-of-pocket growth slowed. The other standout feature is 2020–2021. Government health expenditure as a share of GDP increased from 0.85% in 2000 to 1.29% in 2022, and to 1.35% in 2021, indicating a greater allocation of economic resources to public health, particularly during the COVID-19 pandemic when additional funds were directed towards healthcare infrastructure, vaccination programmes, disease surveillance, and emergency medical services (Chhotaray and Sahu, 2026).

The findings indicate a gradual strengthening of the role of government spending in India's health financing, as domestic general government health expenditure grew at a substantially higher rate than out-of-pocket expenditure (OOPE) during 2000–2023. However, domestic general government health expenditure remained lower than OOPE in absolute per-capita terms throughout the study period. Domestic general government health expenditure increased from PPP US\$17.75 in 2000 to PPP US\$135.12 in 2023, while OOPE increased from PPP US\$61.55 to PPP US\$151.95 over the same period. At the same time, the share of OOPE in current health expenditure declined substantially, from 71.70% in 2000 to 43.89% in 2023 (World Bank, 2025). This indicates that although households continued to spend more on healthcare in absolute terms, their relative contribution to current health expenditure declined over time. Despite all of this, OOPPE still constituted about 44 percent of the current health expenditures in 2023. This reaffirms that household spending continues to remain significant in the Indian health finance mechanism.

7. Conclusion and Policy Implications

This study analyses the trends in per capita domestic general government health expenditure and out-of-pocket health expenditure in India during 2000-2023. The findings indicate a distinct structural change in health financing of India, with government expenditure growing considerably faster than out-of-pocket expenditure. Annual growth rates further show that this change is more pronounced after 2017, and most of the change happened in the period 2020-21, which is associated with major health policy reforms and responses to the COVID-19 pandemic. However, out-of-pocket spending still could not be reduced in absolute terms, and continued to account for nearly 44% of current health expenditure by 2023, indicating that Indian households still bear a large share of the financial burden of healthcare.

Thus, the findings highlight the need for greater and sustained public spending on health in India. Although domestic general government health expenditure has grown faster than OOP, OOP remains higher in absolute per-capita terms and still accounts for nearly 44% of current health expenditure in 2023. Reducing households' dependence on out-of-pocket expenditure should therefore remain an important focus of health financing policy in India.

References

- Ambade, M., Sarwal, R., Mor, N., Kim, R., & Subramanian, S. V. (2022). Components of out-of-pocket expenditure and their relative contribution to economic burden of diseases in India. *JAMA Network Open*, 5(5), e2210040. <https://doi.org/10.1001/jamanetworkopen.2022.10040>
- Chhotaray, A., & Sahu, K. K. (2026). Trends and patterns of public health expenditure in India: An analysis of health financing indicators. *International Journal of Asian Economic Light*, 14(6). <https://doi.org/10.36713/epra28556>
- Chitra, M. (2024). Out-of-pocket expenditures for health: A case study. *Shanlax International Journal of Economics*, 12(4), 16–24. <https://doi.org/10.34293/economics.v12i4.7991>
- Garg, C. G., & Karan, A. K. (2009). Reducing out-of-pocket expenditures to reduce poverty: A disaggregated analysis at rural-urban and state level in India. *Health Policy and Planning*, 24(2), 116–128. <https://doi.org/10.1093/heapol/czn046>
- Jayakrishnan, T., Jeeja, M. C., Kuniyil, V., & Paramasivam, S. (2016). Increasing out-of-pocket health care expenditure in India—Due to supply or demand? *Pharmacoeconomics*, 1(1), Article 1000105.
- Kamath, S., Maliyekkal, J., Elstin Anbu Raj, S., Varshini, R. J., Brand, H., Sirur, A., Singh, V., Prabhu, V., Sumit, K., & Kamath, R. (2025). Understanding out-of-pocket expenditure in India: A systematic review. *Frontiers in Public Health*, 13, 1594542. <https://doi.org/10.3389/fpubh.2025.1594542>
- Kieny, M. P., Bekedam, H., Dovlo, D., Fitzgerald, J., Habicht, J., Harrison, G., Kluge, H., Lin, V., Menabde, N., Mirza, Z., Siddiqi, S., & Travis, P. (2017). Strengthening health systems for universal health coverage and sustainable development. *Bulletin of the World Health Organization*, 95(8), 537–539. <https://doi.org/10.2471/BLT.16.187476>
- Ministry of Health & Family Welfare. (2017). *National health policy 2017*. Government of India.
- Ministry of Health and Family Welfare. (2024, September 23). *Transforming healthcare: Six years of Ayushman Bharat PM-JAY: Enhancing healthcare access for 12 crore families with ₹5 lakh coverage*. Government of India.
- Saksena, P., Hsu, J., & Evans, D. B. (2014). Financial risk protection and universal health coverage: Evidence and measurement challenges. *PLoS Medicine*, 11(9), e1001701. <https://doi.org/10.1371/journal.pmed.1001701>
- Sriram, S., & Khan, M. M. (2020). Effect of health insurance program for the poor on out-of-pocket inpatient care cost in India: Evidence from a nationally representative cross-sectional survey. *BMC Health Services Research*, 20, 839. <https://doi.org/10.1186/s12913-020-05692-7>
- World Bank. (2025). *World development indicators* [Data set]. World Bank. <https://databank.worldbank.org/source/world-development-indicators>