# A GLIMPSE ON HEALTH CARE FINANCING IN NEPAL

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**Abstract**

*This article highlights the important components of Nepalese healthcare financing and aims at examining the health care financing system in Nepal in terms of share of government health care expenditure per capita, household out-of-pocket expenditure, and ratio of total health care expenditure to Gross Domestic Product (GDP). The recent data shows that Government of Nepal allocates meagre 1.11 percent of GDP from government coffer for health care financing where out-of-pocket payment is 3.47percent of GDP and it is about 60 percent of total health care expenditure. It implies that people are heavily dependent on their own source for health care financing. Public Health Expenditure as a percent of Total Health Expenditure 40 percent. Public Expenditure on health as Percent of Total Government Expenditure is 11 percent, Total Health Expenditure (government and out-of-pocket) is 5.8 percent of GDP. The annual per capita government health care expenditure is US$ 44 for 2015. This figure is extremely low in comparison to the other parts of the world like European Union US$ 2192, Western Pacific Region US$ 1338, American Region US$ 1192 even African Region US$114 and South East Asian Region US$ 175 for the same period. This infers that the health care financing in resource-poor country like Nepal relies heavily on household out-of-pocket payments which often results in financial catastrophe for poor and economically vulnerable households. The government needs to make serious effort to bring drastic change in policy priority to improve health care financing to ensure quality change in this sector taking into consideration allocative efficiency and technical efficiency the essential parameters to ensure efficiency in health care financing schemes.*

**Key Words:** *Government expenditure and Health, Gross Domestic Product per-capita, Household out-of-pocket payments, Public Goods*

**JEL Classification:** *D13, H41, H51, I 18*

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## Introduction

Health is both a direct component of human well-being and a form of human capital that increases an individual's capabilities. Better health significantly contributes to economic development and to the reduction of poverty and income inequality. Health care financing has an important role to play in transforming the health care system into one which provides efficient and effective health care to poor and vulnerable people in Nepal. Health care financing in resource-poor country like Nepal relies heavily on household out-of-pocket payments which often results in financial catastrophe (Adhikari, 2010). According to WHO (2017), Nepal's Domestic General Government Health Expenditure (GGHE-D) is 1.11 percent of Gross Domestic Product, Domestic General Government Health Expenditure (GGHE-D) per capita at current price is US $8.05, Total Current Health Expenditure (TCHE) as percent of Gross Domestic Pocket (GDP) is 6.14, Current Health Expenditure (CHE) per capita at current price US $ 44.42, and household Out-of-Pocket payment is 60.41 percent of TCHE. The main institutions of Nepal that delivered basic health services in 2072/73 were the 104 public hospitals, the 303 private hospitals, the 202 primary health care centers (PHCCs) and the 3,803 health posts. Primary health care services were also provided by 12,660 primary health care outreach clinics (PHCORC) sites (*DoHS, 2016*). Nepal has made gradual and steady improvement in health indicators such as life expectancy, infant/child mortality, and maternal mortality. The recent studies have made some findings regarding healthcare financing implication such as increasing the real per capita income by 10 percent, will cause the Infant Mortality Rate (IMR) to fall by 7 percent, child mortality rate (CMR) by 11 percent, and life expectancy rate (LER) will increase by almost 2 percent. Increasing the ratio of health budget to total budget by 10 percent, CMR will decrease by 4.5 percent, and LER will increase by 0.6 percent. If more service is provided by increasing health services, for example increasing number of beds by 10 percent, IMR will fall by 4 percent and LER increase by 1 percent (MoHP, 2010). The results show that in recent years, public health institutions have less capacity to improve intermediate health outputs because of a shortage of human resources, number of health institutions, and institution-related inputs. Equity and efficiency are not in conflict. Improvement of institutional capacity in the delivery of health services (at least increasing the numbers of institutions and manpower in the institutions) can shift the health production function ensuring equity in health care services across regions. Allocation of resources according to needs can improve equity and efficiency of health outputs; however, a blanket policy will not have such a capacity (MoHP, 2010. The financing method chosen is of critical importance because it determines the collection of revenue, the risk-pooling arrangement and the distribution of the cost burden, and the purchasing of services. This national health policy 2071, a complete revision of the national health policy 2048, has been introduced to promote, preserve, improve and rehabilitate the health of the people by preserving the earlier achievement, appropriately addressing the existing and newly emerging challenges and

by optimally mobilizing all necessary resources through a publicly accountable efficient management (*DoHS, 2072/73*). The Constitution of Federal Republic of Nepal 2072 has declared right to health as a fundamental right. Government of Nepal has set forth several health related targets in accordance with the Sustainable Development Goals (SDGs). Therefore, health financing cannot be dealt separately as it has got to do with good governance, economic growth, social inclusion and financial protection to the vulnerable. Health service is considered as a public good and government needs to actively participate to avoid market failure.

The global pattern of healthcare financing in terms of government expenditure, out-of-pocket payments and share of GDP shows great variation across the region. In fact, across the globe there are great variations on the amount countries spend on health. In high income countries per capita health expenditure is over USD 3000 on average, while in resource poor countries it is only USD 30 per capita (*Xu& Saksena, 2011*). There is also wide variation in health expenditure with respect to economic development. Some countries spend more than 12 percent of GDP on health, while others spend less than 3 percent on health. According to WHO (2017) the nations of European region allocate 7.94 percent of GDP as Current Health Expenditure where as $ 2192 as annual health expenditure at current price. Similarly, Western Pacific Region (Asia) allocate 5.70 percent of GDP as Current Health Expenditure where as $ 1338 as annual health expenditure at current price. But, South East Asian Region and African Region allocate less resource for the same (Table 1).

**Table 1 Comparative International Health Financing Status**

| Regions and Nation | Average CHE as a percent of GDP (2015) | Average CHE per capita USD(2015) | Average GDP per capita USD(2015) |
|---|---|---|---|
| European Region | 7.94 % | $ 2192 | $27017 |
| Western Pacific Region(Asia) | 5.70% | $1338 | $19143 |
| Americas Region (North, Central and South America) | 7.61% | $1172 | $12179 |
| Americas Region (Non-Latin, Caribbean) | 5.77% | $656 | $10851 |
| Eastern Mediterranean Region | 5.35% | $562 | $12120 |
| Western Pacific Region(other than Asia) | 8.38% | $471 | $6832 |
| South East Asia Region | 4.48% | $175 | $3096 |
| African Region | 6.18% | $114 | $2200 |
| Nepal | 1.11% | $ 44.42 | $730 |

*(Source: WHO, 2017)*

It is essential to formulate workable and functional health care financing policies to ensure access to better health care facility to foster conducive environment for producing active, productive and creative human resource that is essential to accelerate GDP growth rate of any economy. Everyone knows importance of health as a basic right for life. Therefore, identifying appropriate policies on how to finance and provide healthcare is a key to success for government of Nepal for achieving health related SDGs targets. This paper aims at examining the health care financing system in Nepal in terms of share of government health care expenditure per capita, household out-of-pocket expenditure, and ratio of total health care expenditure to Gross Domestic Product.

## Review of Literature

### Theoretical Literature

Adam Smith, the leading classical economist asserted that size of productive labour and productivity of labour is the major determinant of wealth stock of any nation. He has implicitly emphasized the importance of healthy human resource for economic growth and development. In fact, qualitative human resource is both means and end of economic growth and development. According to Amartya Sen health is a kind of empowerment that gives value to human life. It leads to individual growth capacity and economic security for the individuals and families (Asefzade, 2008). Wagner (1958) predicts that the development of an industrial economy will be accompanied by an increased share of public expenditure in gross national product that The advent of modern industrial society will result in increasing political pressure for social progress and increased allowance for social consideration by industry.

Newhouse (1977) asserted that health expenditure is growing at a faster rate than GDP and emphasizes to curb the growth of health spending. Hence, it is crucial to identify the factors explaining the increase of the latter. He found that over 90 percent of the variance in per capita medical expenditure is explained by variation in per capita Gross Domestic Product. He concluded that per capita income is an important factor determining healthcare expenditure (HCE) in developed countries and concluded that the income elasticity of national HCE is greater than one. These results were consistent to an earlier study by Kleimen (1974). These studies established the precedent viewing income as a major determinant of health care expenditure and have been reinforced by the results of numerous studies. The emergence of endogenous growth theory with the publication of Romer (1986) and Lucas's (1988) seminal paper formalized the importance of human capital in the economic growth of nations. Barro (1991) and Barro and Sala-I-Martin (1992) pointed out that economic growth of a country is affected by environment factors and available amount of physical and human capital. Theoretical literature suggests that expenditure on healthcare is a function of income. A number of researches within health economics indicate that

there are variations in per capita health care expenditure, which could be mostly explained by variations in per capita GDP *( Gerdtham & Jonsson,2000)*.There is debate amongst health economists, academia, and health policy makers regarding determinants of per capita healthcare expenditure. Leu(1986) extended Newhouse' analysis to inquiry whether other variables than income have any significant impact on healthcare expenditure: the share of the elderly in the population, share of public financing and delivery, dummies for centralized systems and so on. Leu insisted that non-income variables are significant, but of minor quantitative importance, and income elasticity exceeds one.

Health financing refers to the "function of a health system concerned with the mobilization, accumulation and allocation of money to cover the health needs of the people, individually and collectively, in the health system… the purpose of health financing is to make funding available, as well as to set the right financial incentives to providers, to ensure that all individuals have access to effective public health and personal health care" (WHO, 2000).

**Empirical Literature on Health care Financing in International Context**

**Hooda (2015)** found that the fiscal capacity of a particular state turns significant in influencing the public expenditure on health in India. That is, the government health expenditure increases with the increase in the per capita fiscal capacity of a particular state. He concluded that among the determinants of health expenditure, the per capita income and fiscal capacity of a particular state turns positive and significant in determining the per capita public. **Sghari et. at., (2013)** underscore that health expenditure is growing at a faster rate and emphasized to curb the growth of health spending. They also stated that it is crucial to identify the factors explaining the increase the health spending. They explored health spending, the overall spending on medical, whatever their nature (ie, mainly spending on hospital, outpatient, pharmacy and medical goods expenditures) or the mode of financing (socialized expenses, reimbursed by private insurance or direct payments to households). **Angko (2013)** examined the demand-side macroeconomic determinants of publicly financed healthcare expenditure employing annual time series data of Ghana from 1970-2006 and an error correction model that captures both short-run and long-run relationships; the analysis clearly captures the demand-side factors that motivates decision to allocate financial resources to the health sector. The main finding highlights the dominants of per capita income (Per capita GDP) and other macroeconomic factors such as health status of the population and age structure of the population in influencing the decision to invest in healthcare. **Xu & Saksena (2011)** estimated static as well as dynamic panel data models to study the factors associated with per capita total health expenditure, government health expenditure and private out-of-pocket health expenditure (OOP). Their results suggested that health expenditure

in general does not grow faster than GDP after taking into consideration other factors. Government health expenditure and out-of-pocket payments follow different paths. The pace of health expenditure growth is also different for countries at different levels of economic development.

**Milne and Molana(1991**) also reports that healthcare is a luxury goods. A majority of empirical studies carried out in the 1980s and 1990s also examined the effect of national income on HCE by including other determinants of health spending like demographic factors. **Parkin et. al., (1987)** pointed out that there is a diversity and heterogeneity concerning healthcare. Medical services vary greatly in the mix of services provided, so that analyses are hampered by comparing countries which produce essentially different product.

**Empirical Literature in the National Context**

**World Health Organization (2017)** estimated that Nepal's Domestic General Government Health Expenditure (GGHE-D) is 1.11 percent of Gross Domestic Product, Domestic General Government Health Expenditure(GGHE-D) per capita at current price is US $8.05, Total Current Health Expenditure (TCHE) as percent of Gross Domestic Pocket (GDP) is 6.14, Current Health Expenditure (CHE) per capita at current price US $ 44.42, and household Out-of-Pocket payment is 60.41 percent of TCHE.

**Adhikari (2010)** states Nepal National Health Account suggests that the government contributes less a quarter of total health spending, while out-of-pocket contributes almost 60 percent of total health spending. He states that health care financing has an important role to play in transforming the health care system into one which provides efficient and effective health care to poor and vulnerable people in Nepal. The functions of health care financing – the collection of revenue, risk pooling and purchasing are all critical to policy design. Risk pooling is a mechanism in which revenue/contributions are pooled so that the risk of having to pay for health care is spread among users. A number of organizational entities exist that can provide risk pooling options. These include tax-based financing, social health insurance, and private health insurance, among others. Purchasing is how funds are used to purchase effective health services from public and private providers.

**Data and Methodology**

This study is basically based on secondary data. The researcher has taken into consideration the secondary data of the variables on per capita health care financing like Nepal's Domestic General Government Health Expenditure (GGHE-D) as a percent of Gross Domestic Product, Domestic General Government Health Expenditure (GGHE-D) per capita at current price, Total Current

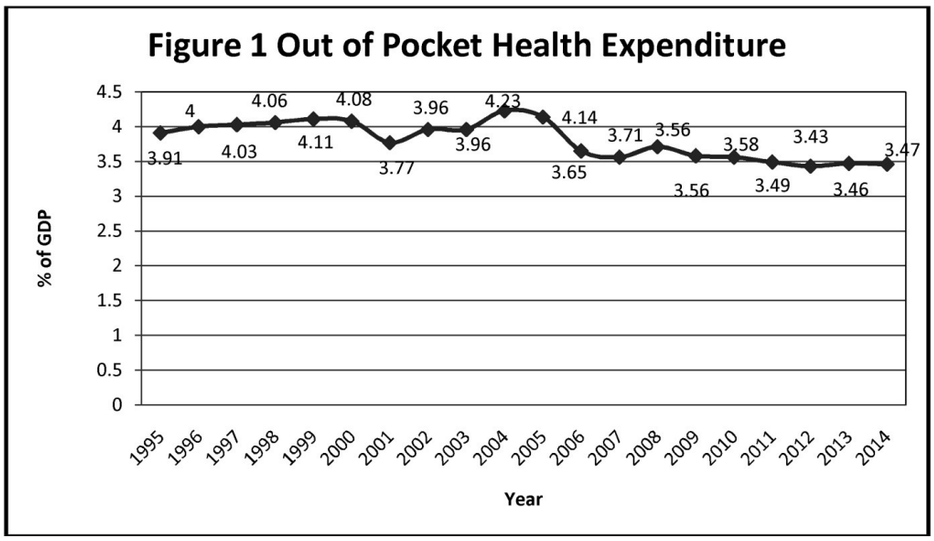
Health Expenditure (TCHE) as a percent of Gross Domestic Pocket (GDP), Current Health Expenditure (CHE) per capita at current price, and household Out-of-Pocket payment as a percent of TCHE. The secondary data ranges from time period 1995 to 2014. The relevant data are collected from Ministry of Health and Population, Ministry of Finance annual publication, World Health Organization, and Central Bureau of Statistics and National Planning Commission publication. Data are manly analyzes showing correlation and ration among the variables of interest.

This study is expected to provide general understanding to estimate and forecast the per capita health care expenditure and its various determinants in the context of Nepal. It is expected that the findings of the study will be of tremendous helpful to concerned stakeholders that are responsible to make decision on allocation of resources in public health care expenditure. It also will be a useful technique to assist public health care planning agencies. In short, this proposed study will widen and sharpen understanding regarding relevancy and significance of public healthcare expenditure. The findings of the study are expected to provide basic guidelines for public authorities responsible for making decision on healthcare expenditure.

**Result and Discussion**

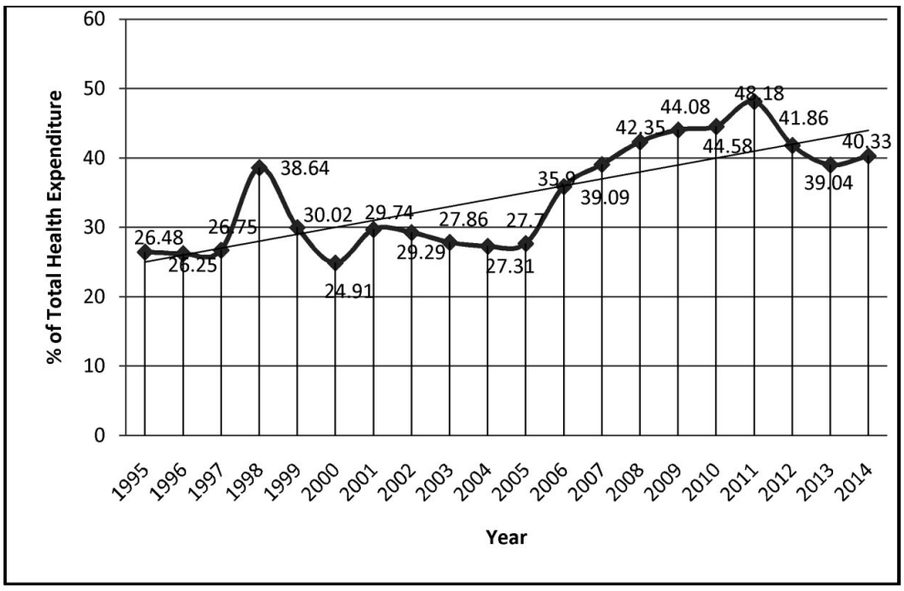
**Private Health Expenditure as a Percent of GDP**

Private health expenditure includes direct household (out-of-pocket) spending, private insurance, charitable donations, and direct service payments by private corporations. Private Health expenditure in Nepal was 3.46 percent of GDP for 2014. Its highest value over the past 19 years was 4.23 in 2004, while its lowest value was 3.43 in 2012.



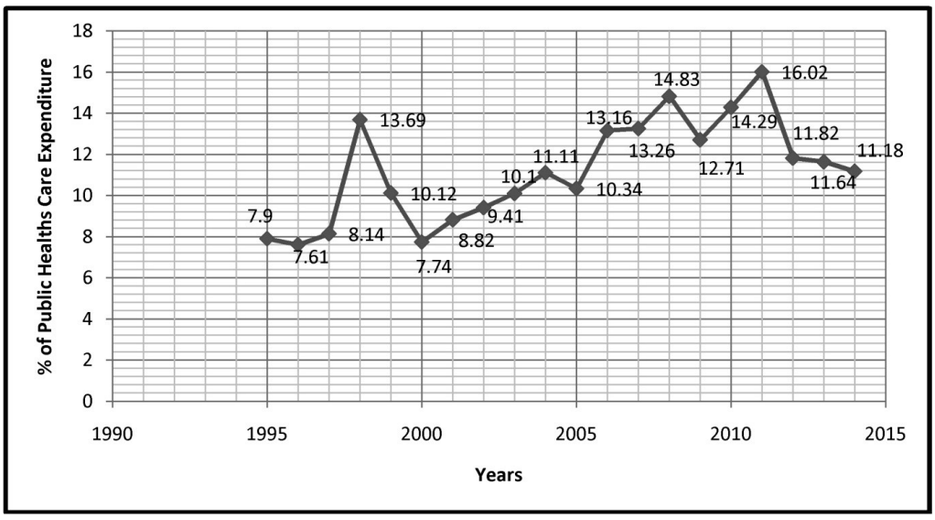
**Public Health Expenditure as a percent of Total Health Expenditure**

Public health expenditure consists of recurrent and capital spending from government (central and local) budgets, external borrowings and grants (including donations from international agencies and nongovernmental organizations), and social (or compulsory) health insurance funds. Total health expenditure is the sum of public and private health expenditure. It covers the provision of health services (preventive and curative), family planning activities, nutrition activities, and emergency aid designated for health but does not include provision of water and sanitation. The value for Health expenditure, public (% of total health expenditure) in Nepal was 40.33 as of 2014. As the graph below shows, over the past 19 years this indicator reached a maximum value of 48.18 in 2011 and a minimum value of 24.91 in 2000.



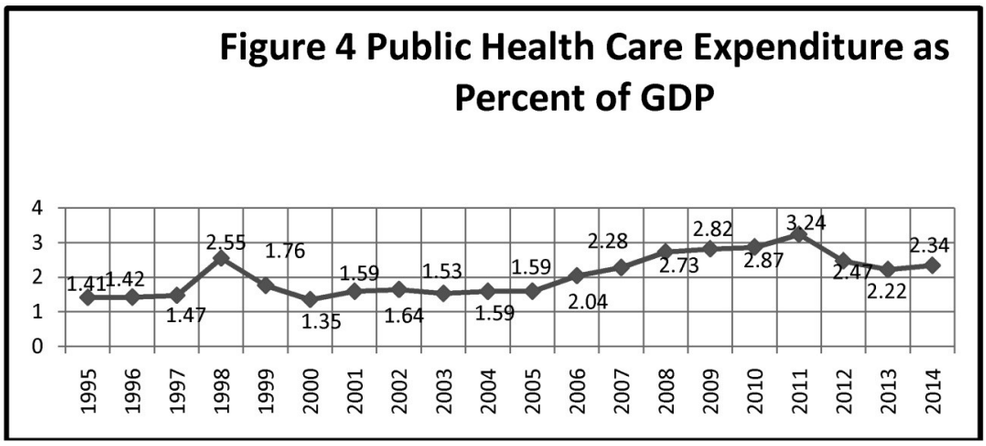

**Public Health Expenditure as Percent of Total Government Expenditure**

Public health expenditure consists of recurrent and capital spending from government (central and local) budgets, external borrowings and grants (including donations from international agencies and nongovernmental organizations), and social (or compulsory) health insurance funds. Health expenditure, public (% of government expenditure) in Nepal was 11.18 as of 2014. Its highest value over the past 19 years was 16.02 in 2011, while its lowest value was 7.61 in 1996.



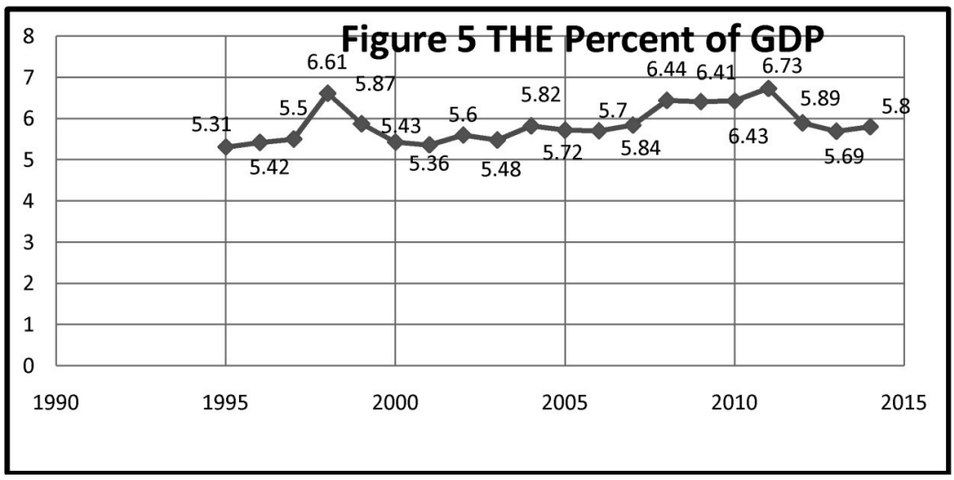

**Public Health Care Expenditure as Percent of GDP**

Public health expenditure consists of recurrent and capital spending from government (central and local) budgets, external borrowings and grants (including donations from international agencies and nongovernmental organizations), and social (or compulsory) health insurance funds. Health expenditure, public (% of GDP) in Nepal was 2.34 as of 2014. Its highest value over the past 19 years was 3.24 in 2011, while its lowest value was 1.35 in 2000.



**Total Health Expenditure as Percent of GDP**

Total health expenditure is the sum of public and private health expenditure. It covers the provision of health services (preventive and curative), family planning activities, nutrition activities, and emergency aid designated for health but does not include provision of water and sanitation. Health expenditure, total (% of GDP) in Nepal was 5.80 as of 2014. Its highest value over the past 19 years was 6.73 in 2011, while its lowest value was 5.31 in 1995.




**Conclusions**

Nepal being a resource poor country, healthcare financing status is extremely poor and critical. Evidence shows that health care financing has got less priority. The annual per capita government health care expenditure is US$ 44 for 2015. This figure is extremely low in comparison to the other parts of the world like European Union US$ 2192, Western Pacific Region US$ 1338, American Region US$ 1192 even African Region US$114 for the same year. Nepal being a resource poor country, allocation of resources for health care services is always critical and frequently unstable due to nuances annual budget process, small fiscal space, uncertainties in contributions of external development partners. The government needs to formulate appropriate health care financing scheme to ensure the efficient, equitable, and effective use of health care resources; however, each popular health care financing scheme has some advantages and disadvantages. In fact, the designing of health care financing strategy to fit with the country specific features is not straight forward. The government needs to make serious effort to bring drastic change in policy priority to improve health care financing to ensure quality change in this sector taking into consideration allocative efficiency and technical efficiency the essential parameters to ensure efficiency in health care financing schemes.

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