

## HEALTH CARE EXPENDITURE: WHO SPENDS?

<sup>1</sup>Dr Norbert Lobo, <sup>2</sup>Dr Priya S. Shetty

*\*Associate Professor and Director, Admin Block, Department of Economics, St Aloysius College (Autonomous), Mangalore-575003,*

*\*\*Assistant Professor and Head, Department of Economics, St Aloysius College (Autonomous), Mangalore-575003*

**ABSTRACT:** Health is considered to be one of the rights of every citizen. As the saying goes sound mind in a sound body, both physical and mental health is equally important. Happiness quotient too depends on good health. Every nation tries to maintain good health of its citizens. As healthy citizens are more productive, thus contributing to nation's development. Thus, health expenditure is imperative both from the individual point as well as from the nation's point of view. It is observed that there is both public spending and private spending. Public spending in India with regard to health is quite dismal considering the population size. The Economic Survey 2020-21 strongly recommends public spending on health to be increased to 2.5 to 3 percent of GDP. The experts are of the opinion that this would reduce the out of pocket expenditure of the citizens. Many earlier studies also reveal that the out of pocket expenditure on health care has pushed a vast majority below their current standard of living. Health expenditure varies between different nations and also within the nation depending on the socioeconomic status of its residents. It is interesting to know within the society with varied socio economic status, who spends more on health care. This will enable the policy makers to use the scarce resource in an efficient manner and provide health care to its citizens reducing the out of pocket expenditure. In this context the paper tries to know the extent of health care expenditure and also to find out the differences in health expenditure among different socioeconomic class.

**KEY WORDS:** Health Expenditure , Nutritional Diet, Purchasing Power, Healthy Citizens,

### I. INTRODUCTION

Health is an important asset any human being can possess. To maintain good health it is necessary that good care has to be taken. Apart from having nutritional diet and regular exercise, human beings also need to spend on health care when required. As health is important for an individual, health of the population is equally important for the nation. Healthy citizens are more productive which in turn influence the development of the nation in terms of contributing to the nation's income. Thus, health expenditure is imperative both from the individual point as well as from the nation's point of view. There is thus public spending and private spending. Investment in health sector is a key indicator for the growth of health infrastructure of the economy. In a federal economy of India, health is the shared responsibility of the centre and the states. Health sector is one of the components in the allocation of funds under the plans in India. Plan allocations are done as per the target to be achieved which is determined at the international level. Financing of health accordingly assumes great importance. Health financing is focused to reduce the out-of-pocket expenditure on health care and also to lessen the probable financial impoverishment while availing health care by the citizens. India, having a large population, expenditure on health to build the required infrastructure and services is inadequate. Economic Survey 2017-18 reported that the share of out-of-pocket expenditure on health stands at a staggering 62 percent and adversely impacts the poorer sections and widens inequalities. The out of pocket expenditure on health has pushed many families below their original standard of living. The current Economic Survey 2020-21 strongly acclaims an increase in public health spending from 1 percent to 2.5-3 percent of GDP would help in reducing out-of-pocket expenditure to 35 percent of overall healthcare spending. Health expenditure varies for different socioeconomic groups too as it varies in different nations. It is interesting to know who is spending on health more in the society. Keeping these in mind, the paper has set certain objectives to understand the behaviour of varied section of the society related to health expenditure.

#### Objectives

1. To find out the extent of health expenditure.
2. To assess the socioeconomic differences in health expenditure.

**Methodology and Data Collection:** The study area is Mangalurutaluk of Dakshina Kannada District, Karnataka, India. The study area is confined to Mangalurutaluk taking a sample of 400 respondents in the age

group of 20 to 60 years. The source of data for analysis used is both primary and secondary. The primary data is collected through structured questionnaire and interview method. Secondary data includes reports and Surveys of the Government, information through print media like newspapers, articles related to the issue in magazines and journals, electronic media, though they are not exhaustible.

## **II. REVIEW OF LITERATURE**

Over the years literature on health economics has seen a substantial number of studies dealing with cross-country variations in health spending. The Commission on Macroeconomics and Health was established by the World Health Organisation in 2000 to know the position of health in global economic development in the sphere of Millennium Development Goals related to health. The Commission recommended promoting health sector investments citing that even small specific health interventions would save millions of lives each year and would translate into hundreds of billions of dollars per year of increased income in the low-income countries. Investing in health instils a virtuous cycle of economic development. Taking a sample of 560 pooled time series and cross section observations Hitiris & John (1992) concluded that gross domestic product is a major determinant of health spending with estimated income elasticity close to unity. The study also confirms the importance of few non-income variables though the direct effect of these variables is small. Xu et al. (2003) dealt with developing appropriate policy responses through the extent of catastrophic health expenditure by using household surveys in 59 countries. The result emphasised that by reducing health system's dependence on out-of-pocket payments that people, especially from poor households can be protected from catastrophic health expenditure. They suggested that increase in the availability of health services is important to improve population health in poor countries.

Jain and Ramesh (2006) examine the association between income and public and private healthcare expenditures which provides information about linkages between the income factor and demand side of health. These insights help to formulate policies to contain costs and ensure that health financing achieves its goal. Using the standard demand theory framework, research has focused on exploring the income elasticity of healthcare expenditures. Healthcare financing and provisioning arrangements play a critical role in reducing or perpetuating existing inequities and shape the pattern of health service use and expenditure (Mackintosh, 2001; Gilson et al., 2007). Nguyen et al. (2009) are of the opinion that percentage of elderly population, rate of disability pensions, the municipal tax rate, the state reimbursements of prescription medicines, private dental care, income, population density, the employment to population ratios are the major determinants of per capita total health expenditure in Finland. Local tax rates are used as a method of financing local services. This study also highlights the fact that income elasticity being less than one health care is a necessity good in Finland. Xu et al. (2011) opine that health expenditures differ in countries even with the same level of economic development. Labonte et al. (2011) opine that in recent decades though global financing for health has increased, public health policy and practice have been challenged drastically by globalisation. The researchers conclude by giving a call to all national governments especially the wealthy nations to take into account global health and its social determinants in their foreign policies. Furuoka et al. (2011) uses a panel data for the period of 1995-2008 to identify the determinants of health care expenditure in twelve Asian countries. The study revealed that per capita real gross domestic product and percentage of population aged sixty five and above in the total population is the two major determinants of health care expenditure in these countries. Both variables have a positive relation with health care expenditure. Countries with higher income spent more on health care. A study by Cosimo and Marco (2012) on health care expenditure in Italian regions at the state level reveal that real gross state product, number of beds in community hospitals, unemployment rate, degree of urbanisation and the percentage of population with high school education has a direct influence on real health care outlay. The result revealed income elasticity below unity indicating that health expenditure is a necessity rather than a luxury good in Italy.

Starfield et al. (2012) assert that in general, countries that spend a greater proportion of government expenditures on health for the poor as compared to the rich have much greater child survival than do countries with the same gross national product but that spend a greater percentage on the rich. Thresia (2013) is of the opinion that the good health at low cost regions namely China, Sri Lanka and the Indian state of Kerala did extremely well in health sector during the second half of the twentieth century. Over the 1990s these regions are facing wide health inequities as compared to other good health at low cost regions like Costa Rica and Cuba. The author cites that the poor health outcomes in these regions are due to the shift in financing health care from predominantly public sector to an increasing private-sector medical care and out-of-pocket spending. Investigating the public health challenges and linked medical care-induced misery, this article argues that the root causes affecting population health in these regions are often abandoned in policy and in practice and that

the policymakers, planners, and researchers should make it a priority to address health inequities. Determinants of health expenditure in Economic Cooperation Organisation (ECO) countries were surveyed by Samadi&Enayatollah (2013) using panel data. The survey found a long term relationship between per capita health expenditure and per capita gross domestic product, the percentage of child and elderly population, number of doctors and the extent of urbanisation. The study concluded that health as a necessary good in ECO as the coefficient of gross domestic product was less than unity. Using panel data from China's provinces between 2001 and 2011 Zhu et al. (2014) conducts an experimental study of the determinants of medical and health care expenditure. The investigation shows a positive correlation between the personal disposable income of urban residents and health care expenditure. They are of the opinion that as health expenditure in terms of income has two effects. One is the wealth effect that is as income increases the individual's capacity to spend on health care also increases. Second is the depreciation effect which says that as ones health depreciates, spending on health care rises.

Determinants of health expenditure in 25 OECD countries are studied by Hosoya. (2014) using a panel data over the periods of 1985-2006, 1990-2006 and 1997-2006. The result envisages that ageing is major determinant which cannot be ignored whilst taking into account variations in health expenditures. This study too concluded that health care is a necessary good. Hicks (2014) opine that the final output of the healthcare sector is health. If there is a close relationship between health and medical care, then indicators of medical care output can be used as indicators of the true output of the healthcare sector. It is clear that such a correspondence is not seen between the two and that the quantity of medical care utilised is therefore not a good indicator of output health. Folahan and Awe (2014) examined the determinants of health expenditure covering a period of 34 years from 1976-2010 in Nigeria. The result showed that number of hospitals, number of nurses and number of doctors are the important determinants of health expenditure and has a positive relationship. The study revealed no significant long run relationship between diseases and health expenditure implying that a large amount of health expenditure goes as payment of salaries and less is left for maintenance of health facilities and its development. The nature of health expenditure changes considerably as the countries progress along the epidemiological transition. Nations in the world are in different stages of epidemiological transition process. The World Health Organisation (WHO) estimates of the causes of death in 2008 indicate that in the 'more developed regions, excluding Eastern Europe', a majority of all deaths to the extent of 80 per cent were attributable to non-communicable diseases (UN 2012). Communicable diseases require simpler health strategies requiring urgent and short term treatment whereas non communicable diseases require expensive and long term treatment (Barik&Sonalde. (2014).

Hooda (2015) analysed the determinants of health expenditure by the government of India to find out the trends and variations in health spending considering major states of India between the periods from 1987-88 to 2011-12. The analysis shows a high interstate variation in per capita health expenditure. He asserts that income and fiscal capacity of a state plays a significant role in influencing health expenditure. Income elasticity of health expenditure is comparatively high in low income states. K.Srinath Reddy, President of Public Health Foundation of India is of the opinion that the centre and states should harmonise the twin agendas of enabling state autonomy to drive health policies and programmes of developing a unifying national framework for urban health centres that carries India towards the Sustainable Development Goal (SDG) targets and promotes health equity across geographical, social and gender distinctions. This is possible only if there is a large multi-layered health workforce that is well skilled, socially committed and adequately remunerated. This would reduce out of pocket spending, curb catastrophic health expenditure and prevent health care related impoverishment (The Hindu, January 3, 2016 pp10).

A study on growth and determinants of household spending in India by Mohanty et al. (2016) compares the growth of per capita household health spending and per capita consumption expenditure. The trends in household spending is analysed using demographic, social and economic attributes. Per capita consumption expenditure is used to measure economic wellbeing. The study observed that household spending was income inelastic. Household spending on medical test was growing fast. The study conducted by Son and Luke (2017) on trend and health expenditure determinants during the period 1975-2004 in OECD countries reveals that health care expenditure in nations of same level of economic development is not the same. Further, the study found that the main determinant of health expenditure is technological progress. The result of their study also emphasised that health care is a necessary good and not a luxury in OECD countries. Rao (2017) dealing with the international funding for health in India says that the developing countries lose twenty to forty percent of their health funding to corruption and inefficiencies. The author deals with two stages of funding: first phase in the initial years of independence to control communicable diseases and second phase post 1990s to improve child and maternal health.

Government policies are influenced by the international agenda. So the author urges that the keeping in mind the Sustainable Development Goals, India needs to improve its standards in governance. Policies aimed at decentralisation, participation by people and controlling corruption especially at the service delivery level will result in greater efficiency and better outcome. The Agenda for Sustainable Development Goals attained by 2030 emphasises universal health coverage and healthy lives for all. Despite great progress over the years, the globe is far behind these goals says Otterson (2017). Rajpal et al. (2018) opine that the National Health Policy 2017 takes into consideration catastrophic household health expenditure and tries to examine the incidence and patterns of such expenditure. It is observed that poorer households are more likely to experience the consequences of catastrophic health expenditure compared to richer households. It is obvious that many households which lack the ability to pay are more likely to delay or forego treatment. The authors assert that it is a call to the government that such households need to be identified for policy analysis to improve the health of its population.

Pandey et al. (2018) deals with the trends in out-of-pocket health care payments and catastrophic health expenditure in India by household age composition. Four national consumer expenditure surveys and three health-care utilisation surveys conducted between 1993 and 2014 were analysed. The study found that the catastrophic health expenditure increased drastically during the survey period for all groups and more for the poorer households. Households having persons aged sixty years and above catastrophic expenditure is common. The health sector is characterised by expenditure growth over a long period. Policy makers should ensure that health spending should lead to improved quality while keeping costs under control says Propper (2018) dealing with the United Kingdom's experience. The author is of the opinion that introduction of competition both in health care finance and delivery is the means to tackle this issue. Duggal (2018) is of the opinion that asymmetric information prevails in health sector and thus the political economy of health care in India has become largely commercialised. He further stresses that health care has to be developed as a public good detaching it from the market place if India has to have healthy citizens.

The review of literature highlights the fact that health care is a necessary good in almost all countries of the world. Spending on health care varies even with the countries having same level of income. In India too there are state wide variations in health spending. The major determinants of health expenditure as per the literature review is seen as the proportion of aged population, income, number of hospitals, beds, nurses, physicians, unemployment rate, degree of urbanisation, extent of education. Keeping in view these variables the present study made an attempt to understand the socio-economic features of the respondents on the spending pattern on health care services.

### III. ANALYSIS OF FIELD DATA

Health expenditure is an important component of health. It indicates how much spending is done by individuals for health including health insurance. Health expenditure among different demographic profile like area, gender, age, education, marital status, occupation and income is analysed in the study. This helps to understand the variations in health expenditure among the different socioeconomic class. Monthly health expenditure which includes health insurance subscription too is depicted in Table 1.1. Vast majority of the respondents to the extent of 60.5 percent have monthly health expenditure up to 1000 rupees. There is a section of the respondents up to 14.8 percent who do not incur any health expenditure. It is also observed that a significantly small percentage of respondents spent more than 3000 rupees per month. The table shows that there is a significant difference between urban and rural area with respect to spending on health care with p value being lesser than 0.05. It is observed that rural population spend more than the urban population on health. This may be due to the fact that that they do not have enough hospital facilities near their homes and also avoid going to hospitals immediately so that they spend more later.

	Urban		Rural		Total	
	Freq	Percent	Freq	Percent	Freq	Percent
None	29	14.5	30	15.0	59	14.8
Upto 1000	137	68.5	105	52.5	242	60.5
1000-2000	18	9.0	34	17.0	52	13.0
2000-3000	15	7.5	28	14.0	43	10.8

3000-4000	1	0.5	1	0.5	2	0.5
4000-5000	0	0.0	1	0.5	1	0.2
> 5000	0	0.0	1	0.5	1	0.2
Total	200	100	200	100	400	100

*Chi square 15.102, df=6, p value=0.019, Sig*

*Source: Survey Data*

<b>Table 1.2: Health Expenditure According to Marital Status and Gender</b> (per month in percentage)						
		None	Up to Rs1000	Rs1000-2000	Rs2000-3000	Above Rs 3000
Marital Status	Married	12.5	61.0	14.4	11.0	1.2
	Single	29.2	59.2	8.7	5.8	1.0
	Widow/er	0.0	45.8	20.8	33.3	0.0
	Separated	0.0	100	0.0	0.0	0.0
<i>Chi square=39.931, df =18, p value=0.002, HS</i>						
Gender	Male	15.0	50.3	21.4	11.6	1.8
	Female	14.5	68.3	6.6	10.1	0.4
<i>Chi square=26.651, p value=0.001, HS</i>						
<i>Source: Survey Data</i>						

Health expenditure according to marital status and gender is shown in Table 1.2. The table shows a significant difference in the way of health expenditure by the marital status of respondents. The data reveals that widow/ers spend the maximum on health. Respondents who are widow/ers spending more on health may be due to the psychological condition leading to psychosomatic ailments which force them to spend on health. As many of the widow/ers are comparatively old, their spending on health is greater. The data related to gender shows that male spend more on health as compared to their counterparts. This may be due to the economic independence of men to spend on health care. As it is observed from the survey, that though women are employed, all of them do not have sufficient economic independence to spend. Ignorance of spending on health, sacrificing their health for family may be the reasons why women spend less than men.

<b>Table1.3: Education Level, Religion and Health Expenditure</b> (per month in percentage)						
		None	Up to Rs1000	Rs1000-2000	Rs2000-3000	Above Rs 3000
Education level	Illiterate	0.0	66.7	0.0	33.3	0.0
	Primary	8.3	58.3	25.0	8.3	0.0
	Middle School	6.7	70.0	10.0	13.3	0.0
	High School	14.8	55.7	16.4	13.1	0.0
	PUC	13.6	51.1	18.2	14.8	2.2

	Graduation/PG	19.8	63.4	8.7	7.0	1.2
	Professional	14.8	60.5	13.0	10.8	0.5
Religion	Hindu	11.9	66.8	13.1	7.8	0.4
	Muslim	17.9	33.3	12.8	30.8	5.2
	Christian	20.2	55.3	13.2	10.5	0.0
	Jain	0.0	100.0	0.0	0.0	0.0
	Other	0.0	100.0	0.0	0.0	0.0
	<i>Source: Survey Data</i>					

Health expenditure according to the level of education and religion is shown in Table 1.3. The table shows that education is good for health. Illiterate respondents to the extent of 33 percent spend rupees 2000-3000 per month as compared to 7 percent of highly educated respondents. Educated may be more aware of healthy habits and the methods of maintaining good health. They are also aware of health insurance schemes. With regard to religion, the table reveals that Muslim spend more on health, followed by Christians. As observed in the field survey generally Muslim families were bigger in size, followed by Christian and other religion reflecting higher health expenditure.

<b>Table 1.4 : Occupation, Income, Age and Health Expenditure</b> (per month in percentage)						
		None	Up to Rs1000	Rs1000- 2000	Rs2000- 3000	Above Rs3000
Occupation	Student	37.9	44.0	7.8	9.5	0.9
	Salaried	13.9	68.3	11.4	4.5	2.0
	Agriculture	11.8	66.2	17.6	2.9	1.5
	Business	18.3	56.7	16.7	5.0	3.3
	Self-employed	25.0	42.7	12.5	16.7	3.1
	Unemployed	27.6	62.1	0.0	10.3	0.0
	Pensioner	14.3	42.9	19.0	23.8	0.0
	Housewife	28.2	46.6	11.5	10.7	3.1
	Labourer	22.1	66.2	7.8	3.9	.0
<i>Chi square 39.123, p value=0.331 NS</i>						
Household income (in Rs)	2001-6000	20.0	80.0	0.0	0.0	0.0
	6001-9000	15.9	61.4	6.8	15.9	0.0
	9001-13000	21.3	50.6	11.2	16.9	0.0
	13001-18000	16.0	56.4	14.9	12.8	0.0
	18001-35000	14.3	66.3	13.3	5.1	1.0
	≥35000	4.3	68.6	17.1	5.7	4.2

Chi square 36.702, p value=0.018, Sig						
Age (in Years)	20-30	25.0	58.3	8.3	7.4	0.9
	30-40	17.8	62.4	12.9	6.9	0.0
	40-50	10.5	65.8	14.0	8.8	0.9
	50-60	2.6	53.2	18.2	23.4	2.6
Chi square 45.840, p value=0.000 HS						
Source: Survey Data						

Table 1.4 shows health expenditure by the various occupation group, income level and age group. The data reveals that pensioners spend more on health expenditure and agriculturist the least. This may be due to the fact that pensioners being old, health expenditure also rises. There is otherwise no significant difference in health expenditure among different occupation group. It implies that occupation is not a major determinant of health expenditure. It is seen that higher income group spend more on health care. The purchasing power of higher income bracket is the reason for this. There is a significant difference in spending on health care among different age group. The table reveals that older people spend more on health. 23.4 percent of the respondents in the age group of 50-60 years spend rupees 2000-3000 per month on health. Age is a contributing factor to health expenditure. Greater the age, health expenditure is also greater. This may be due to the fact that as age advances, people suffer from different ailments.

#### IV. CONCLUSION

Health expenditure plays an important role when it comes to public funding. Public health can be enhanced through government spending on various sections like infant, children, women, communicable diseases including potable water, sanitation, food and nutrition etc. Out of pocket expenditure though rising, it is for secondary and tertiary care. Income level, area of residence, religion, gender and marital status influences the spending on health care services. The administration, if focuses on these aspects, the out-of-pocket expenditure of the citizens may be reduced. Healthy citizens being the asset of the nation, health expenditure done by the government in a proper manner will have an accelerating effect not only on the social aspect but also on the economic front as healthy citizens contribute to nation's development. Health of the people and the need of intervention by the government vary at micro level too. A judicious mix of the health expenditure with the area specific health issues definitely has a long lasting positive impact.

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