IS THERE A "CORRECT" SHARE OF HEALTH CARE SPENDING IN GNP?

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Spiraling health care costs are the sword of Damocles hanging over the head of many Western policymakers. Cuts too deep may hurt the poor and the elderly. Cuts too shallow may hurt future generations. John Reynolds asks in this essay whether or not it is possible to strike a happy medium. "The only truths which are universal are those gross enough to be thought so."

P.Valery

Introduction

In an unregulated competitive health care market it would be relatively easy to answer the question of what the correct share of health care spending of GNP should be - "*leave it to the market*". Unfortunately, most health care markets are (justifiably) heavily regulated. In such a system there is no automatic mechanism, such as the market, to guide it to the appropriate level of spending. This essay will examine the various techniques of economic analysis which have contributed significantly to setting the budget for health care and will conclude by outlining why there is no universal correct share of health care spending of GNP.

Determinants of health care spending

A widespread belief that an understanding of the fundamental determinants of health care spending may yield valuable insights into how such expenditure can be controlled, has led to a considerable volume of literature on these determinants. One of the most consistent conclusions in this literature is that the principle determinant of what a country spends as a share of GNP is income. Newhouse (1977) examined the relationship between medical care expenditure and income across 13 developed countries, regressing per capita medical care expenditures on per capita GNP. Consistent with an earlier study by Kleiman (1974) for a different set of countries, Newhouse reached two major conclusions;

(1) Firstly that GNP accounts for most of the variance in medical care expenditures across countries, and secondly that;

(2) the income elasticity of medical care expenditures across countries exceeds

one - by definition this implies that, at the margin, medical care is a luxury good.

Newhouse felt that in countries with high expenditure, the marginal unit of medical care is more likely to produce improvements in so-called subjective components of health, such as relief of anxiety and more accurate diagnoses, rather than improvements in morbidity and mortality rates. Could it be the case that countries spending more on medical care may well provide additional caring, but little additional curing ?

Table 1: Expenditure on Health in Low-Income and High-Income Economies

Country	%of Government Expenditure Spent on Health Care Services (1983)
Low Income Economies:	
Nepal	4.5%
Sri Lanka	5.1%
India	2.4%
Pakistan	1.0%
Industrial Economies:	
Germany, F R	18.6%
Australia	7.1%
Canada	6.3%
USA	10.7%

Source : Asian Development Bank et al. (1988)

Table 1 also supports the basic finding that national income largely determines the level of health care spending in an economy. In this table, low-income countries spend a smaller proportion of total Government Expenditure on health care : the percentage of public expenditure on health ranges from 1.0 to 5.1 per cent in low-income countries and from 6.3 to 18.6 per cent in the high-income (industrial) economies. In a break from the traditional line of thought, Ulf Gerdtham (1992) concluded that the age structure of the population of a country may be of prime importance in determining the level of health care expenditure. He discovered, in his research of health care expenditure in Africa, that the demand for medical services fluctuates with age - those under 15 years of age utilise medical services more than average. Yet in accepting Gerdtham's proposition, it is also of fundamental importance to note a number of problems associated with cross-national comparisons of health expenditure, as outlined by Robert Leu(1986); Definitions of health etc. are insufficiently standardised; exchange rate conversions always have a degree of randomness, and; input prices may be positively correlated with the level of national income.As a result, it is not surprising that, when based on international comparisons, a judgment of the effective impact of health care is elusive. To conclude, none of the cited studies of the determinants of spending on health care explicitly combine resource use (or cost) with enhanced or maintained well-being. They give no indication whatsoever of the 'right' level of spending. It is clear that in order to make progress on what to spend on health care, there must be more precise data on the productivity of health care interventions.

A Correct level of Spending?

On the whole issue of changes in government expenditure on health services, Sean Barrett, in his study of the "Social and Economic Aspects of the Health Services"(1979), points to several disquieting signs that increases in expenditure on the health services have been accompanied by a reduction rather than an improvement in the health of the community. He refers to Keating's article (1976) which reveals that the life expectancy of males of 30 years of age declined between 1960 and 1970 despite increases in government spending on the health service during that period. Moreover, in Tokyo in 1973 the International Economic Association concluded that healthcare is only one input into the process by which the health of the individual is improved. Income, education, lifestyle, work environment, work status, housing and health care all affect an individual's state of health. The following are the results of a U.S. study which analysed the potential changes in mortality rates which would be associated with a 10 percent increase in some variables;

Table 2: Percentage change in Age-specific Mortality Rates resulting from a 10 percent increase in several variables.

Income	Education	Cigarette Consumption	Per Capita Health Expenditure
+2.0%	-2.2%	+1.0%	-.065%

Source : Culyer (1976)As can be seen from the above table, the increase in per capita health care expenditure reduced the mortality rate by 0.65 percent, but a similar increase in education expenditure reduced the mortality rate by an even larger percentage of 2.2 percent, proving that an increase in healthcare expenditure is not necessarily the most effective means of reducing mortality and therefore, increasing the 'healthiness' of a community.Conclusion? In conclusion, little evidence can be drawn from economic studies on what is the most appropriate share of healthcare spending of GNP because there is no universal correct share. Health care is shaped by too many determinants - income, age structure, the structure of the health budgeting system (the more centralised the system is, the lower is the share of health care spending (Culyer 1988)), and each of these determinants vary in importance in different parts of the world.

To assume a universal share would be to deny all these international variations. For example, if GNP is the most important determinant of health care spending in a particular country, little can be done by way of direct health care policy in setting the budget. Governments have to aim to increase GNP if they want to increase the budget for health care. As I have already stated, GNP is the most important determinant of health care spending in most countries, but what about the African countries where the age structure of the population plays a key role in determining such spending. To assume there is a correct level of health care spending in GNP with respect to the GDP of a country would be to ignore these African countries. Therefore I believe there is no such 'correct' share of health care spending in GNP - there are no such "universal truths". I believe that it is up to the countries to decide for themselves what is the most suitable level of health care spending by use of the appropriate techniques of economic evaluation, namely cost benefit analysis, which should include an investigation of the determinants of health in their country. The result will not be a universal correct share but it will help the various countries to decide where increases and decreases in resources are best applied.

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