

# **Alternative Resource Mobilization Strategies for Pakistan's Health Care**

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# Table of Contents

<b>Executive Summary .....</b>	<b>1</b>
<b>1 An Overview of Pakistan's Health Care System .....</b>	<b>1</b>
.1 Current financing practices .....	1
.2 Low allocation of resources by the public sector .....	2
.3 Low pooling of health funds .....	3
.4 Quality of services/ service delivery .....	3
.5 Composition of health sector budget.....	4
<b>2. Health Financing and Drivers of Health Expenditure .....</b>	<b>5</b>
2.1 Health financing practices.....	5
2.2 Growth in the number of health care professionals .....	6
2.3 Age structure of population .....	7
<b>3. Resource Mobilization Alternatives .....</b>	<b>7</b>
3.1 Health financing through tax revenue.....	8
3.2 User fees .....	9
3.3 Health insurance (social, private).....	11
3.4 Community financing .....	13
3.5 Donor's assistance .....	13
<b>4. Experience of other Countries .....</b>	<b>14</b>
4.1 Experience of SSA countries .....	14
4.2 Experience of Asian countries.....	15
4.3 Experience of Developed countries.....	15
<b>5 Policy Implication for Pakistan .....</b>	<b>16</b>
References .....	19
Annexes: 1.....	21

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# Alternative Resource Mobilization Strategies for Pakistan's Health Care<sup>1</sup>

Dr. Shafqat Shehzad

## Executive Summary

*The effort to improve ways to finance health care has been the guiding force for improving health outcomes in many developing and developed countries. However, total spending on health varies sharply across countries. Whereas, in many developed countries populations enjoy universal access to range of health services financed through general tax revenues, social insurance, private insurance and user charges, in many low-income countries, financial protection against the cost of illness is still incomplete. The proportion of populations sharing risk is low, and differential between access to health care services among the rich and poor is wide. The paper presents evidence on current practices of Pakistan's health care finance and delivery, and suggests ways through which alternative resource mobilization strategies can be devised for health care in Pakistan. Some popular methods of health care financing being practiced in other countries are community financing, user fees, health insurance, and assistance from donors. However, resources can also be saved from wasteful and ineffective uses of health technology (services, programs and procedures), and result in improving efficiency of existing health care services. Reallocation of resources within the health sector can be cost effective. The paper develops a criterion for choosing a financing system that takes into account factors like ease of use of the system, revenue generating ability, effects on service provision, and community participation in the socio-economic context of Pakistan.*

**Main words:** Resource mobilization, health care finance and delivery, health insurance, community participation, health expenditure.

**JEL Classification:** H51, I18, H0

## 1 An Overview of Pakistan's Health Care

### 1.1 Current financing practices

Pakistan's existing health care financing system is uncomplicated. People usually pay in cash for health care services, or go without it. However, the system of health care practices does not represent a good profile of country's health status. To date, Pakistan's macro level indicators, such as infant mortality rate (82/1000lb), under-five mortality rates (105/1000lb), maternal mortality rates (530/100,000lb), remain unacceptably high, and the micro level health indicators remain undocumented.<sup>2</sup> Pakistan's health care services are mostly financed through taxation but there is no earmarked taxation to raise money for health. Pakistan's tax system is regressive in nature, meaning that the poor have to pay relatively high proportion of taxes compared to the rich, and hence incidence of taxation falls mostly on the poor. Pakistan has a narrow tax base and taxable capacity is low. Therefore, total amount of money spared for health turns out to be less than one percent of GDP over the past 20 years. The allocation for health is surely not enough to meet the needs of estimated 148.72 million people. Hence, there is need to explore alternative resource mobilization strategies because the current tax-based financing for health is not enough to meet health care needs of all. Pakistan is

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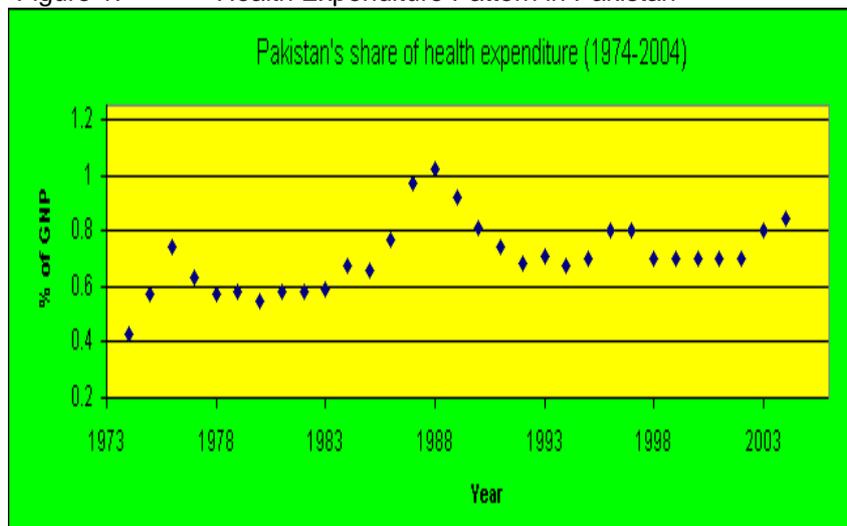
2 The figures are taken from the World Development Indicators (2004).

undergoing both epidemiological and demographic transitions, where age structures are changing and threats of communicable diseases and non-communicable diseases are growing. These challenges require that alternative financing mechanisms should be explored in Pakistan's context to face new situations and changing demands. There is need to mobilize alternative sources rather than relying on conventional resources to achieve goals of improved health outcome. Different countries are relying on different sources to raise revenues for health and broadly these include community/domestic financing, health insurance, user fees, and donors' assistance. However, the experience of each country is different, and success in achieving better health outcome depends a lot on the overall state of socio-economic development.

## 1.2 Low allocation of resources by the public sector

Low allocation of resources by the public sector: In Pakistan, resource allocation for health has remained stagnant and grossly insufficient to meet health care needs of the people. Although it is difficult to determine the optimal amount of health care spending needed to improve Pakistan's over all health output, the problem is confounded by lack of generating enough resources from alternative sources. The following figure shows the trend of public sector health spending in Pakistan.

Figure 1: Health Expenditure Pattern in Pakistan



Source: Economic Survey of Pakistan: Various issues.

In Pakistan, health expenditure follows a more or less stagnant pattern from 1973-2003, ranging from as low as 0.4% of GNP in 1973-74 to one-time maximum of 1.1% in 1988. The ratio is not in comparison with the global standards. Expenditure on health by the government is advocated on the grounds that it is a public good, and providing health care will be socially advantageous because it will generate positive externalities. The

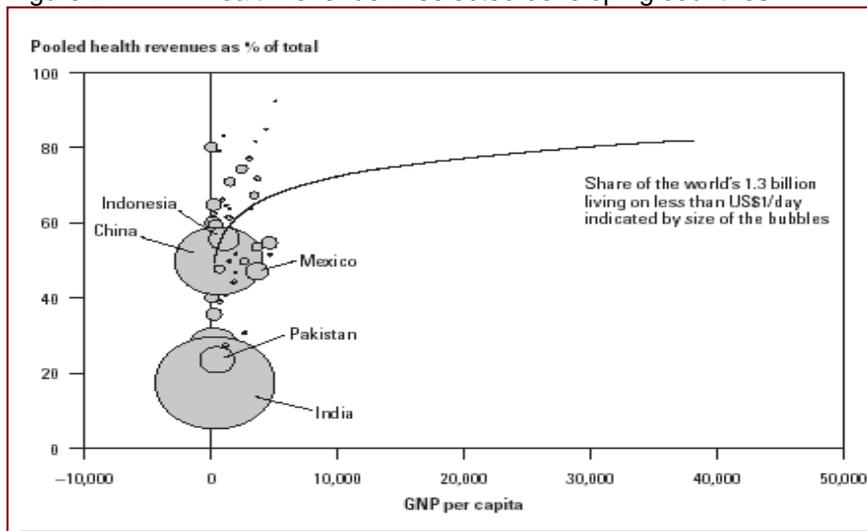
government expenditure on health care is also desirable for equitable distribution of resources, preventive and curative services and efficient health care delivery. However, for resource allocation decision for health, the government considers providing relief to the very poor through subsidies or transfer payments. The choice of transfer payments and subsidies is important for influencing income distribution and reducing inequality. In Pakistan, preference is given to subsidized health care services offered to the poor compared to transfer payments because of ease in administration. However, such subsidies may escape normal budget controls, and may generate excessive uses and unforeseen health care demands. Resource allocation decisions for health care, therefore, depend on a number of factors, including demographic, socio-economic and technical, and it is quite difficult to determine the influence of each. For example, according to the 1998 Census of Pakistan, children under age ten constitute a large proportion of population. This demographic feature requires that maximum resources be allocated to meet health care needs of such children, especially if they belong to low-income groups. However, expenditure policy may not necessarily reflect this priority of health care spending because of the presence of competing demands and scarce resources. Resource allocation also depends on the capacity of the health sector to absorb resources, and according to the sources of

Ministry of Health, money allocated for health may remain unspent if there is not enough capacity for absorption.

### 1.3 Low pooling of health funds

Another important characteristic of Pakistan's economy is its low revenue generating capacity. According to the World Health Report (2004), Pakistan's total expenditure on health as a percentage of GDP was 3.9 in 2001. Although the figure is comparable to 4% of GDP prevailing in other developing countries, lack of growth of GDP has affected collection of revenues and allocation of resources to health by the government. According to the World Bank study (2004, pp. 6), "if a developing country's capacity is as low as low as 10% of GDP or less, it would require to take thirty percent of revenues to meet a target of 3% of GDP health expenditure through formal collective health care financing channels."

Figure 2: Health revenue in selected developing countries



Source: WHO (2004, pp.5)

The figure shows low pooling of funds for health care in Pakistan. The obvious reason is Pakistan's relatively small formal wage sector compared to very large and varied informal sector. Informal workers from the agriculture, construction, and industry and business sectors lack access to formal medical and health care services. To seek health care under the constraints of unregulated incomes, such

workers usually rely on unauthorized traditional healers or public health centers that lack qualified staff and drug supplies. Even for these unauthorized, low quality service providers, services are not free and many times require co-payments on the part of persons falling sick. The patients' out-of-pocket expenditure constitutes a large part of the total household expenditure. Due to poverty and informal sector employment, no guard is offered against illnesses. Hence, self-treatment is common in Pakistan, and many people remain without any medical and health care treatment. The existing gap in excess demand and limited resources exerts pressure on already scarce resources and results in resource allocation problems, such as drug shortage, capital stock depreciation and inadequate hygiene standards.

### 1.4 Quality of services/ service delivery

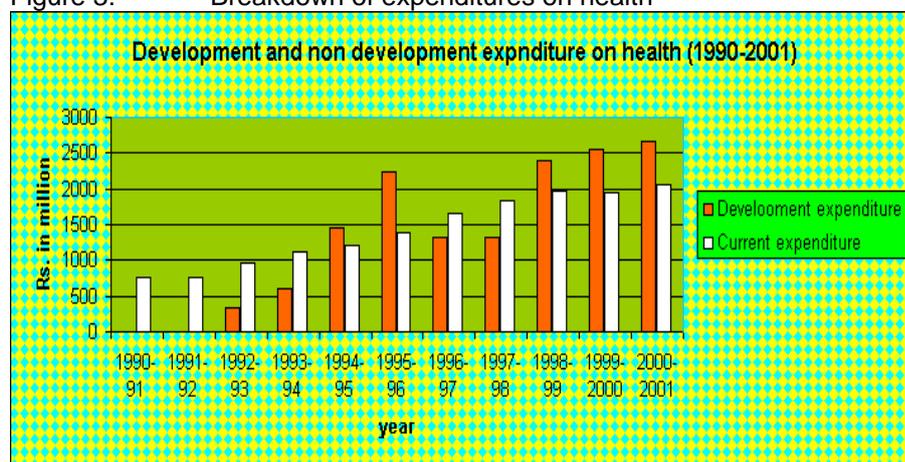
In Pakistan, health care quality issues negatively affect utilization of health care services even by the very poor, who prefer no treatment or rely on self-medication in case of illness. Phelps (1992) has divided quality aspects of health care into two broad components: productivity of intervention in producing health (effectiveness of treatment, training of health personnel, available medical technology), and amenities of health care, (opening hours, waiting time and cleanliness). In Pakistan, the issue of health care quality is closely linked to available resources and to equitable and efficient use of these resources for quality improvement. Poor quality of health service delivery is closely linked to resource allocation and distribution of health, and profoundly affects different groups in the country. In Pakistan, allocation of physical infrastructure is mostly concentrated in the urban areas,

which results in inequitable distribution of resources. On the other hand, Pakistan's rural health facilities are inadequate in terms of medical supplies. There is acute shortage of medical and health care personnel and where they exist, the problems of staff absenteeism and low motivation in absence of incentives (low income) is common.

### 1.5 Composition of health sector budget

As health services quality and health outcomes are both dependant on income and overall health expenditures, it is important that they are spent efficiently and equitably. One more issue for health care financing is the composition of expenditures on health, which is highly disaggregated in Pakistan. The following figures show budget allocations on development and non-development sectors of health in Pakistan.

Figure 3: Breakdown of expenditures on health



Source: Economic Survey of Pakistan: Various issues.

The current profile of Pakistan's health care bears significant implications for the health care financing policies that are now being proposed to aid low public expenditure on health. In Pakistan, per capita expenditure on health was 16 dollars in 2001 (see WDI 2004). With this meager amount, universal health

coverage does not exist in Pakistan. There is no clear idea on how to strategize for reducing risks of catastrophic illnesses or how to improve the composition of expenditure on health that has severely affected service delivery. Some of the recurrent budget estimates for the four provinces of Pakistan are given below:

Table 1: Recurrent Budget Estimates for Provinces of Pakistan (Rs. Mn) 1995-1996

	Punjab	Sindh	NWFP	Balochistan
Total Budget	4523.619	2468.243	1703.295	822.621
Medical Education	444.258	1168.809	239.398	75.946
Hospitals	3431.000	-	1034.114	621.846
Rural Health Care Centers	1250.342	535.794	365.308	58.391
Mother Child Health Centers	37.531	246.513	9.433	20.366
Other Health Facilities	26.550	-	10.051	64.266
District Health Offices	5.486	36.931	35.883	35.822
Dispensaries	119.436	-	81.934	-

Source: Budgetary items for non-salary items of primary health care facilities in Pakistan, Shafique and Khattak (1998).

Recurrent costs estimates are associated with health care inputs consumed or replaced in one year or less time. The recurrent cost categories usually include medical supplies, personnel, transport, maintenance and overhead, training, surveillance and monitoring. In Pakistan, there are insufficient budget allocations to fund current expenses other than costs for drugs, diagnostics, repairs and maintenance, replacement of equipment, utilities and in-service training expenses. For Pakistan's health care, problem is to evaluate these recurrent costs in a situation where cost recovery is already

low. Generating revenue for health cannot only be obtained by alternative sources but also by saving resources from being spent in unproductive activities or less effective health care services. Hence, in order to reform overall health situation in Pakistan, the fulfillment of the following objectives is essential: effective (funds allocated based on evidence), equitable (resources are spent in a way that shift resources from the rich to the poor), and sustainable (health revenue equals expenditure).

## 2 Health financing and drivers of health expenditures in Pakistan

### 2.1 Health financing practices

Pakistan’s health financing system can be explored in terms of how it is managed and controlled. Medical sociologists such as Anderson (1972) and Hollingsworth (1990) characterized health systems along a “centralized” and “decentralized” continuum. A health financing system is, therefore, highly centralized if the share of public funding is major and vice versa. In Pakistan, allocation of resources, service delivery and decision making for health expenditure are major responsibilities of the government. However, private sector has also been increasingly involved in undertaking investment and provision of health services. Due to diverse nature of stakeholders in health, Reich (1996) developed an approach of political mapping to capture range of actors and interests concerned with specific policy issues. Walt (1994) extended pluralist theory to an international level in description of international policy networks. In Pakistan, health-financing instruments are not well defined or well designed. Therefore, the overall health care investments remain low. According to the sources of the Ministry of Health, per capita expenditure on health by various stakeholders in 1996-97 was as below:

Table2: Per capita expenditure on health by various stakeholders

	1996-97	% of total
Federal government	45.26	10.3%
Provincial governments?	110.41	25.1%
Zakat	1.38	00.3%
Private households	282.49	64.3%
Total	439.54	100%
	Approx: US\$ 11	

Source: Economics of health sector reforms in Pakistan: Hakim K.F. (2001).

As the table shows, the largest contributors of national health expenditure are private households, followed by provincial government, federal government and Zakat. There are different types of private health care ventures in Pakistan, both for-profit and not for profit. The public or private sectors either own the major hospitals with concerns over the relative efficiency of the two. However, there is still not sufficient evidence to justify a recommendation on the types of health care service provision (private or public) in Pakistan. There are also concerns that without government regulation, problems of unequal distribution of resources, duplication of services, inefficiency and increasing costs can occur as a result of increasing private for-profit ventures in Pakistan. Therefore, there are

arguments in favor of increasing public control. Abel Smith (1988) argues that public ownership makes it easier to control costs on a budget basis as compared to private ventures.

In Pakistan, health service delivery is a mixture of public and private institutions. All hospitals have large outpatient

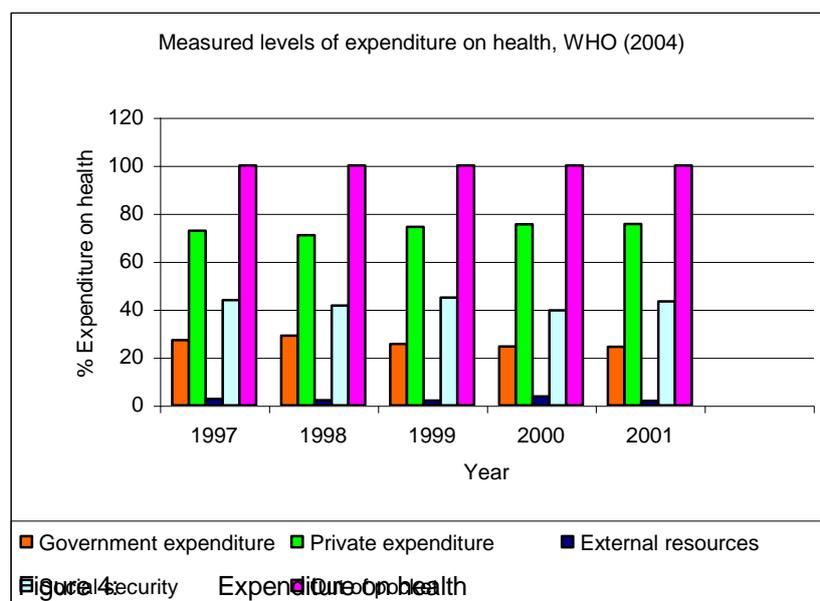


Figure 4: Security Expenditure on health

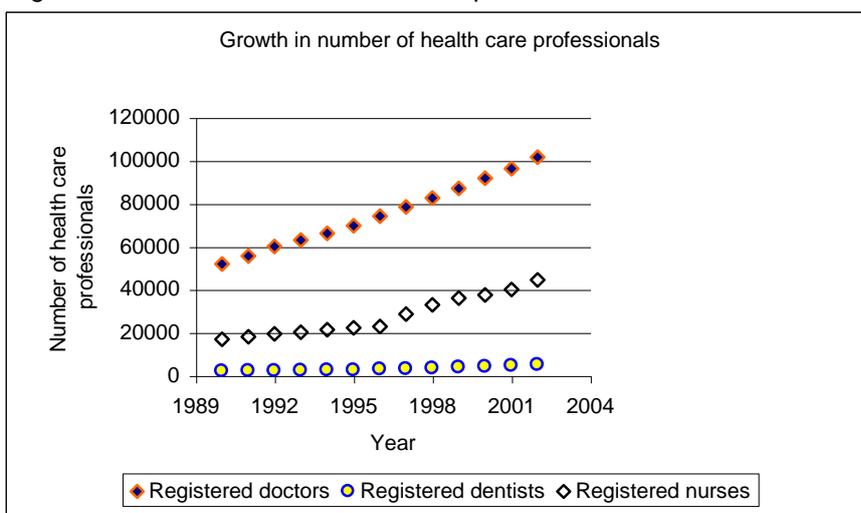
departments, and the government at various levels, (federal, provincial and local), controls major public hospitals. Most of the hospital costs are financed by government budgets without systematic annual review of their effectiveness and future planning. In Pakistan, many rural facilities are under utilized, and more patient load is observed in hospitals located in the big cities where people come from far off areas for treatment. Under utilization of public health services is proving to be more costly, generating unequal access to public health services. Hospital beds and physicians are unequally distributed with more concentration in the urban than rural areas. These health care system characteristics necessitate that reallocation of resources and services are required immediately. Reallocation of resources will help establish referral patterns and curb the expansion of high cost hospitals that may result in inefficient use of resources. A well-organized health service delivery will save resources that can be used more efficiently in other areas. Another cost saving (resource generating) strategy for Pakistan can be effective control of multi channel payment system. The means of payment for health services usually affect utilization of health services. The government may, therefore, exert control over revenues through which massive resource savings are possible. Government's ability to organize the flow of funds will determine budget control and allocation of resources for health care in Pakistan. According to recent estimates provided by the World Health Report (2004), the measured levels of expenditures on health from 1997 have been presented below.

The figure shows that out of pocket expenditures constitute major share in health expenditure, followed by private, social security, government and external resources. A large proportion of out-of-pocket expenditure in Pakistan and unregulated price increases of drugs and medical supplies can be used as a means of removing budgetary shortfalls by the government.

## 2.2 Growth in the number of health care professionals

The following figure shows growth in the number of professionals in Pakistan as a major driver of health expenditure in Pakistan. The numbers show a systematic increase in the number of registered doctors followed by trained nurses and dentists in Pakistan.

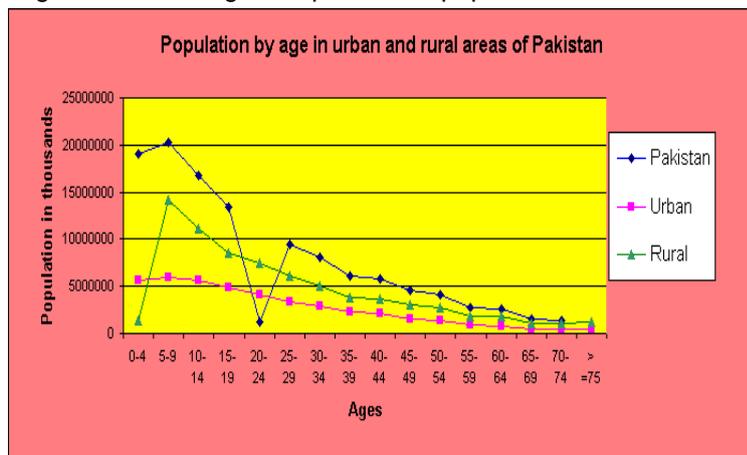
Figure 5: Number of health care professionals



Another important factor acting as major cost driver in Pakistan is the age structure of population. According to the 1998 Census, the following figure shows age composition of population, showing that children aged 5-9 years of age constitute major segment of population. The age group also reflects more dependency, and requires that more health expenditure be allocated

to the needs of children (see Pakistan's Statistical Yearbook 2004).

Figure 6: Age composition of population



important factors for cost escalation for health care in Pakistan.

## 2.3 Age structure of population

The proportion of population aged less than 15 in (2000-2001) was 43.3 percent and the population aged 65 and older was 3.2 percent. The dependency ratio in the same year was 87.3percent.

Growth in the number of health care professionals, age composition of population, advancements in medical technology, are all considered as

## 3 Resources mobilization alternatives

There are many ways through which health care financing takes place. The criteria for financing are different in different countries, depending on the state of economic and social development. Most commonly used methods of health care financing include direct payments by patients (user fees, informal payments and out-of-pocket spending), general taxation, health insurance (private and social), community health insurance, and donors' assistance. Each country uses a different mixture of several of these types, and one type may dominate in a specific country setting. The financing methods have a major impact on the way health care is delivered and on access to health care by different segments of society.

### 3.1 Health financing through tax revenue

In Pakistan, general tax revenue is the main source of financing health care. Public and private sectors provide health care services, and the government provides subsidized health care services for those who are unable to pay. A limited number of health insurance schemes exist that typically draw money from employers' contribution based on their salaries. Therefore, only a small proportion of population is covered by health insurance and a major part covered from revenue through taxation. Receipts of the government, among others, include taxes, fees, and grants from other institutions. Taxes are compulsory contributions without explicit benefit to the taxpayer. Taxes reduce disposable income and wealth of those who bear them. A glance at Pakistan's budget shows that choices are made among competing alternatives and for policy implementation. It is, therefore, unrealistic to recommend a huge increase in health expenditures without considering the availability of resources. The primary purpose of taxation is diverting resources from taxpayers to the government for allocation of resources and distribution of income and wealth. Taxes are necessary because sole reliance cannot be made on service charges that may disrupt allocative and distributive tax functions.

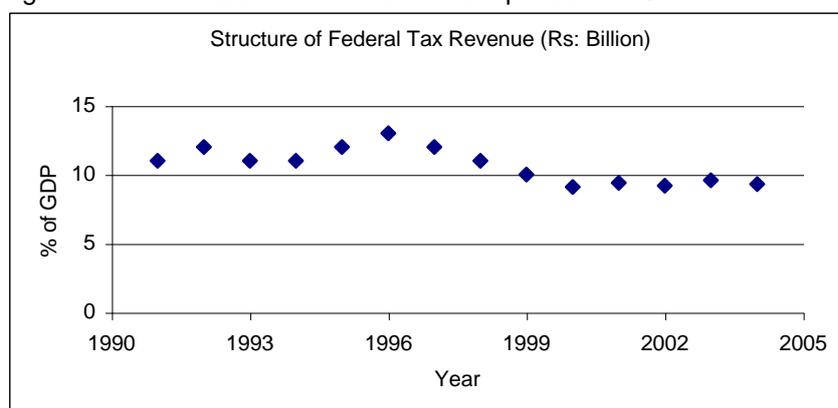
The tax structure of Pakistan is regressive in nature. The poor have to pay a large proportion of their income compared to the rich, and more reliance is on the indirect taxation, including excise and sales taxes. The share of direct taxation is low. Pakistan's collection of revenue through taxation is not

earmarked for health. Goode (1984) discusses characteristics of a good tax system as equitable, efficient, and easy to administer. Equity requires that taxes conform to fairness and efficiency requires that they do not impose huge operational costs. Equity requires that people should be taxed differently based on their ability to pay. Ability to pay also relates to economic capacity (see Goode 1984, pp.78). He explains that in order to be equitable, "taxes need to be imposed according to objective rules that are reasonable and just."

The tax system in Pakistan shares certain common characteristics of other developing countries. Tax-to-GDP ratio is low (13-14 percent of GDP) compared to 17 percent for developing countries and 30 percent for industrial countries. Reliance on trade taxes has been high, and the share of direct taxes has been low. Both the direct and indirect tax systems have a highly differentiated rate structure, narrow tax base, and extensive exemptions and incentives. A narrow tax base with highly differentiated tax rates tends to result in low collection rates, and tax compliance is a serious issue in Pakistan. According to the WHO report (2000), fairness in financial contribution index for Pakistan is 62-63, defined as ratio of total household spending on health to permanent income above subsistence. Total household spending on health includes payments towards the financing of health systems taxes, value-added tax, excise tax, social security contributions, private voluntary insurance, and out of pocket payments. Revenue through taxation includes all individuals irrespective of utilization of social (health) services. Revenue through general taxation depends on income and wealth and, as contributions are not earmarked for health, little tax revenues are collected via payrolls and entail low revenue generating capacity. However, there is a limit on the amount of tax revenue that can be raised by the government and a comprehensive discussion can be seen in Karl and Forte (1981, pp.41-54). Excessive taxation, therefore, may impair productive capacity and weaken economic incentives, resulting in tax evasion and administrative burdens. Pakistan started introducing tax and tariff reforms in the 1990s to address the structural weaknesses of its tax system. Since then some improvements in the structure of taxation have been observed but there have not been significant or sufficient increases in revenue. To overcome structural inefficiencies in taxation, tax administration reforms are being introduced to reduce costs of compliance, increase costs of non-compliance, and improve efficiency with which tax laws are enforced. In Pakistan, during the last five years, tax collection has increased 65% and the revenue deficit has been reduced from 3 to 0.2% of GDP (for more details about taxation system in Pakistan, see Economic Surveys). The following figure shows share of federal tax revenues in Pakistan.

The figure shows that Pakistan's collection of revenue is less than 10 % of GDP. Therefore, if

Figure 7: Federal Tax revenue as a per cent of GDP in Pakistan



Source: Economic Survey of Pakistan: Various issues.

vis-à-vis taxed based financing in order to improve coverage.

Pakistan plans to continue to rely on tax-based health financing system, no improvements can be expected in terms of increasing access of health care to all, quality health care, better infrastructure for health etc. This is mainly due to limited capacity of total tax revenue as percentage of GDP. Hence, alternative sources of tapping revenue for health need to be explored

### 3.2 User fees

User fees are direct payment by patients. As is the standard practice all over the world, user fees (prices) are charged for resource mobilization and for generating private revenues used for financing health care services (see for example Griffin 1987, Jimenez 1996). The extents to which revenue can be raised through user fees depend to the extent people are willing to pay a price for health care services. Usually patients are not willing to pay any price for curative services. Economic theory suggests that when user fees rise, utilization of health care services falls, but the question is how much? This depends on the price elasticity of demand. If the demand is less sensitive to price increases, more revenue can be mobilized through increase in user fees. Such price increase will have two effects on revenue: as user fees rise, more revenue is generated through increasing the number of visits, and conversely low revenue is generated by reducing the number of visits. Reduction in visits is enough to offset price increase: overall revenue will decline. However, there can be some problems in raising revenue through user fees. If demand is inelastic, it will be less sensitive to price changes. Providers inducing health care demand can offset effects of user fees, and user fees may result in adverse effects for the poor. For Pakistan, policy to raise revenue through user fees can affect more the lower socio-economic groups compared to high-income groups.

The use of user fees as a source of mobilizing resources and a means of cost recovery is not in place in Pakistan. In some health care facilities, a minimal fee is charged but not enforced effectively. As such there is no national system of user fees that is used for cost recovery of services. The use of user fees can be challenged on several grounds in Pakistan. The hospitals and health centers lack appropriate fee collection procedures. Therefore, introducing user fees is dependent on effective fee collection mechanisms and that in the context of a developing country like Pakistan, user fee is charged only based on the ability to pay. Therefore, higher user fees are charged from the relatively well off with strict exemption policies for the poor. A closely related issue can be the potential of raising revenues through user fees when majority of people in Pakistan live below poverty line, and it might be expected that a significant amount cannot be raised from user fees.

For revenue mobilization through user fees, the government must be clear about reallocation of resources, referral systems for hospitals, contribution of user fees in total health resources, exemption strategies for the very poor people, cost recovery and cost sharing. Special targets need to be set and issues of efficiency, equity, and administrative ease should be given special attention. The following box shows arguments in favor and against user fees as presented in many different studies.

Box 1: Arguments for and against user fees

For	Against
Goods and services with price inelastic demand are mostly consumed by the rich and should be subjected to higher user fees and vice versa.	Relatively high rates of cost recovery through user fees.
Charging a fee or some fee for all medical services to raise revenue. Exception can be immunization for being a merit good or externality.	Nature of health care: Low prices are required to ensure poor against financial risk in absence of insurance market.
Zero prices should be discouraged unless the poorest are truly exempted. For tax efficiency, a tax should not only cover the cost but also be able to finance other goods and services.	User fees can improve relative service affordability. However, they do not spread or pool risk or guarantee access to health care by all.
User fees should be used when total health spending is too low.	User fees do not reduce costs, they increase inequity.
Health expenditures: high and user fees are used for moderating demand and containing costs.	User fees can be costly to implement and difficult to manage.

Source: Jack, W. (1999). Principles of health economics for developing countries, WBI Development Studies, pp. 202-207.  
Creese, A. (1997). Editorial, British Medical Journal, pp.202-203.

Akin J, Birdsall N, Ferranti D. (1987). Financing health services in developing countries: an agenda for reform. Washington, DC: World Bank, 1987.

Shaw and Ainsworth (1996). Financing health services through user fees and insurance: Case studies from sub-Saharan Africa. The World Bank Discussion Paper -294.

Creese and Kutzin (1995) examined national cost recovery ratios from 15 developing countries and found that 11 countries had fee revenues that finance less than five percent of public sector health expenditure. They explored the extent to which raising fees would mobilize resources as contingent upon individuals' willing to pay high price for services. In practice, however, patients are not willing to pay price for curative services. As fees for service rise, utilization of health care services falls but the question is how much? It depends on the price elasticity of demand. If the demand is less sensitive to price increases, more revenue is mobilized through increase in fees. Price increase has three effects on revenue: as fees rise, revenue rises by raising revenue per visit; revenue declines when doctor visits are reduced; and reduction in visits is large enough to reduce total revenue. The major factors that affect demand for health care are prices, income and health status of a particular population. However, the magnitude and extent of these factors is still undocumented in Pakistan. A study by Alderman and Gertler (1997) reported following elasticities based on 1986 data of female and male children.

Table 3: Elasticity estimates for Pakistan

Country	Data	Service type	Own price elasticity		
	1986		Overall	Low income	High income
Pakistan	Female children	Traditional healer	-	-0.43	-0.24
		Public clinic	-	-0.43	-0.23
		Pharmacist	-	-0.44	-0.25
		Private doctor	-	-0.17	-0.09
			-		
	Male children	Traditional healer	-	-0.60	-0.26
		Public clinic	-	-0.61	-0.27
		Pharmacist	-	-0.63	-0.27
Private doctor		-	-0.25	-0.10	

Source: Alderman and Gertler (1997)

The table shows negative price elasticity estimates for a study for Pakistan where a fall in demand for health care is observed as price rises. When demand is inelastic, increases in health care price raise revenue (the positive effect is larger than the negative demand effect). When price of health care is elastic, increase in price reduces revenue because negative demand effect outweighs positive price effect. The above evidence shows that estimates of price elasticity are highest for private doctors, with pharmacists, public clinics, and traditional healers in declining order. This evidence suggests the poor mostly use low quality government clinics. A relevant policy question that emerges from this evidence is the cost effectiveness of government's infrastructure when making resource allocation decisions. If public clinics remain under utilized due to lack of health care facilities, there is a need to use the existing infrastructure in an effective manner. Public clinics in Pakistan need to be equipped with adequate medical supplies and health care personnel. If resources can be saved from putting

money into less cost effective health care services, they can be reallocated into programs that yield high returns. Health care consists of a mix of inputs, such as doctor's time, hospital beds, X-rays, and drugs etc. The multiplicity of these inputs on the one hand and service mix on the other, determines overall health care sought by people. If the government and other private sector health insurance companies plan to influence health care prices in Pakistan, they must anticipate what changes will be brought about in the service mix or health care inputs in response to changes in their relative prices. In order to develop an effective distributional health care policy in Pakistan, it is important to know price and income elasticities of demand for health care. Although elasticity estimates reported by Alderman and Gertler (1997) provide useful insights, data set used in the study is dated and less comprehensive. Hence, a detailed account of price and income elasticity estimates for health care will provide the extent to which revenue can be raised through different user fees.

### 3.3 Health insurance (Social, private)

Health Insurance is a method of health care financing whereby the insured people do not bear the full cost of health care treatment. Health insurers act as payers of health services and the type of health insurance (public or private) determines the degree of control government has over health spending. The degree to which government is able to exert control over health care financing has important policy implications. In an effort to extend health care coverage for all, the government of Pakistan is exploring health insurance as a means of extending coverage. However, there are several hurdles involved in the process of transition from low to high, and eventually universal health coverage for all at affordable prices. Health care financing through general tax revenue is by far the main source in Pakistan. However, for exploring alternative strategies, it is important to know that in the presence of a large informal sector in Pakistan, how practical it is to register and collect health care contributions from people who do not have a regular income or their incomes are classified as middle and low categories? A closely related issue is cost escalations associated with universal coverage as a result of moral hazard and resulting increase in health expenditures.

In social health insurance, services are paid through contributions to a health fund. The common basis is payroll with contributions both from the employer and the employee based on the ability to pay and access to health care, which is based on the needs of people (see Griffin and Shaw 1995). However, critical questions remain about resource efficiency, technical efficiency (mix of inputs) and impact of SHI. In Pakistan, a referral system that requires that medical services should initially access the lowest and least inexpensive system of primary health care is not in place. There are various reasons for this, including drug shortage in public health centers, lack of adequate equipment, and technical staff. Many patients rely on centralized hospitals for illnesses that can be treated at primary levels. A closely related issue is lack of a formal insurance market in Pakistan. However, prospects for expanding health insurance need to be explored bearing in mind that health care financing can only be established when its viability has been assessed both on demand and supply side.

Table 4: Supply and demand side insurance issues

	<b>Requirement</b>	<b>Facilitated by</b>	<b>Appropriate macro variables</b>
Supply of insurance	Low administrative cost	Denser population, better developed infrastructure	Population density Urban population
	Ability to reduce adverse selection and moral hazard	Assembly of sizeable groups to pay for coverage	Total population x % of labor force in industry or formal sector employment
	Greater donor involvement in the health sector	Donor motivation to invest in new private sector development	Aid flows in health
Demand for insurance	Income	Positive income elasticity of demand for insurance	Per capita income

	Greater private sector potential	High probability of losses for consumers Reduced prospects for free care	Private medical expenditures Supply of physicians Hospital beds per thousand population
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Griffin and Shaw (1995, pp.160)

The above table has been reproduced from Griffin and Shaw (1995, pp.160) as a guideline for supply and demand side health insurance issues, and needs to be carefully taken into account for any efforts aiming at introducing SHI in Pakistan. Health insurance aims to provide health services to those who fall ill but cannot afford to pay for it. Griffin and Shaw (1995, pp. 143) explain that “health insurance is the only practical instrument through which governments can get out of the expensive business of across the board subsidies for hospital care and thus release funds for public health, preventive and primary services that benefit the poor.” They explain basic characteristics of health insurance as spreading the risk of catastrophic illness to a larger population, efficiency gains, and equity. Within the risk pool, health care benefits are provided on the basis of need rather than income. However, there are some basic problems associated with health insurance that include adverse selection (people with high probability of catastrophic illnesses dominate insurance membership), moral hazards (people use more health services than they actually should), and cost escalation (both provider and consumer driven). The evidence for social and private health insurance from many countries of Sub Saharan Africa (SSA) reveals that although many countries resorted to SHI as a means of extending coverage, success depended a lot on other related factors, such as employment base, population density, and administrative structures. With not enough spending on health, social and private health insurance can be “unviable” (Hsiao 2004). By early 1990s, many international agencies did not encourage insurance-based alternatives. However, by 2000, there is increasing recognition that principles of insurance can be applied to low-income countries (see WHO 2000). However, Pakistan needs to proceed carefully in the design and application of health insurance incentives.

### 3.4 Community Financing

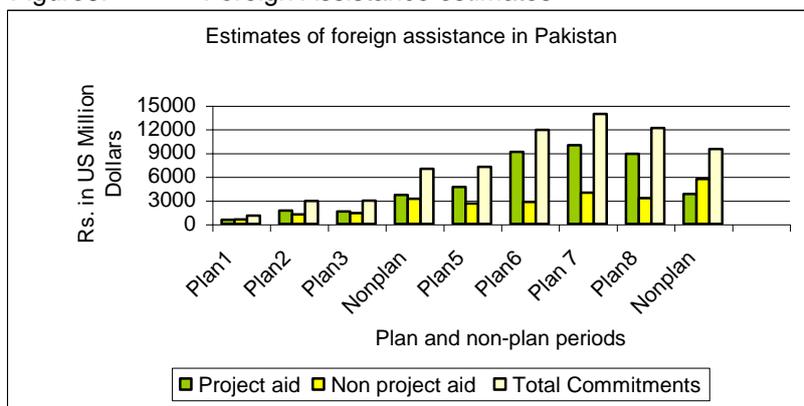
As distinct from social insurance, community insurance has voluntary community involvement. Compared to social health insurance, the scale is small and deals with a varied group of people engaged in different types of occupations. Hence, there are number of community financing models in place in different countries. In the late 1950s, China initiated a Cooperative Medical System (CMS) that proved quite successful in its efforts to mobilize resources and cost effective provision of health care to rural population. In Bangladesh, many NGOs operate community insurance schemes linked with credit programs. Bangladesh has started other local schemes such as Grameen Health Program, Dhaka Community Hospital Insurance Program and Self Employed Women's Association (SEWA), which are successful examples covering thousands of low-income households. Stinson (1982) compiled an inventory and brief description of around 200 financing schemes. Other examples from Asian countries include introduction of Thai Health Card and Indonesia's Dana Sehat. (Hsiao 2004, pp.122) lists three basic characteristics of community financing: community control, voluntary membership, and prepayment for health care by community members. He also classifies community financing schemes into five types: direct subsidy to individual, Cooperative Health Care, community-based third party insurance, provider sponsored insurance, and producer or consumer cooperative. The health care facilities usually range from specified number of consultations in a given year and listed drugs. Experience of other developing countries suggests that CF schemes can mobilize additional funds for government facilities and improve access; they can also mobilize funds from rural and urban populations and improve efficiency and quality of care with modest risk pooling. The success of community can be judged on a number of performance variables, such as social inclusion, resource generation, and financial protection. However, care must be taken for regional inequalities that may result because of areas based community health financing schemes, package design, and setting of premiums.

### **3.5 Donor Assistance**

In Pakistan, the role of donor assistance has been multidimensional. In 2000-2001, total public sector development allocation for all federal ministries was 35 billion rupees, of which 8.11 percent was allocated for health and nutrition (see Annual Report of the Director General of Health). Of the total PSDP allocation, 11.1 percent was foreign aid for health and nutrition. The main feature of donor funding is little control over funds by the government, and usually aid for health and nutrition has been program-specific. Donor assistance has grown or shrunk in different times, basically due to donor policies for which certain conditions are placed on the use of funds. With these characteristics of donor assistance, health care services have not been planned on a long-term or permanent basis. Therefore, the problem of ad hoc nature of plans that often do not become sustainable once the donor money is gone. In Pakistan, major foreign assistance is categorized as project and non-project aid. In project aid, the major heads include assistance for non-food, food, balance of payments support, and relief assistance for refugees.

The table shows varying proportions of project and non-project aid to Pakistan. The major donors since 1993 have been Japan, UK, and the United Nations agencies (UNDP, UNICEF, UNFPA). Other countries have also provided assistance of varying sizes and interests, thus contributing to funds of specific uses. However, overall health sector funding remains low, and some major donors remain outside social welfare programs such as EU or USAID. If the government wants to initiate extensive

Figure8: Foreign Assistance estimates



Source: Pakistan Statistical Year Book (2004)

health coverage through programs started with the help of donor assistance, care must be taken of the design, technicalities and sustainability rather than blindly initiating any such programs that may harm than benefit the already poor people.

## 4 Experience of other Countries

### 4.1 Experience of SSA countries

Sub Saharan African countries have vast experience in the use of user fees because their for-profit health institutions are required to cover all health care costs. According to a study by Mujinja and Mabala (1992), nine out of 18 government dispensaries were reported to have recovered 100 percent of their operating costs from user fees and seven of 21 NGO hospitals recovered more than 75 percent of their operating costs in Tanzania. In another study, Nolan and Turbat (1993), Sub Saharan countries were studied according to four categories for cost recovery in public health facilities. Sixteen countries were classified as having cost recovery in place and dominated by national system of user charges. Some of these countries were Ghana, Kenya, Sawziland and Zimbabwe. Eleven countries had some national system of fees, but were minimal and not enforced effectively. The countries, among others, included Rawanda, Sierra Leone and Zambia. Six countries were categorized where no national system of user fees was in place, but in these countries some fees were collected through communities. Such countries were Uganda, Congo, Madagascar, Central African Republic, Niger and Zaire. In the fourth category, countries were grouped according to no apparent forms of user fees or cost recovery in place, and the countries were Angola, Bostwana, Malawi, Sao Tome, and Tanzania. In the 1980s, African countries faced economic problems that adversely affected the health of their population. Due to bad economic conditions, countries found it difficult to implement primary health care policies. Therefore, in 1988, the Health Minister of the World Health Organization (African Region) adopted Bamako Initiative that aimed at improving quality of health services and improved access to health care through cost sharing. Later evidence, for example by Ridde (2003), revealed that introducing fee for service had an adverse effect on service utilization. In a study by Vogel (1989) and World Bank (1994), revenue from user charges as a percent of recurrent government expenditures were reported for Sub Saharan African countries. For example, Ethiopia collected 15-20 percent of revenue from user charges as a percent of recurrent government expenditure on health, which was the highest among the reported countries. Burkina Faso, on the other hand, collected the lowest 0.5 percent through user fees. Among the countries that collected a high percentage were Ghana (12.7 percent in 1987), Lesotho (9 percent in 1991-92), Mozambique (8 percent in 1985) and among the lowest were Swaziland (2.1 percent in 1984), Bostwana (2.8 percent in 1983) and Mali (2.7 percent in 1986). User fees as a percent of recurrent hospital expenditure as reported in Central African Republic (1992) and Bitran et al (1993) show that Tanzania collected 56

percent of average revenue as a percent of recurrent expenditure through 22 Mission hospitals in 1992, Nigeria collected 82 percent from nine public maternities in 1986, and Central Africa collected 94 percent from three public maternity hospitals.

#### **4.2 Experience of Asian countries**

According to a World Bank study (2001), two billion people living in the low and middle-income countries do not have adequate health care to meet their basic needs. Hsiao (2004) presents evidence of low revenue generating capacity of community financing schemes in various developing countries mainly due to their low and poor incomes. He, however, finds that properly structured community financing schemes can significantly improve efficiency, quality and health outcomes, and help in pooling risks. Hsiao categorizes community-financing schemes according to five types. These include prepaid user fees, controlled by government or individual household and their potential for raising revenue or increasing access is low and modest. The second type is cooperative health care that is usually controlled by local community and special purpose NGOs who may cover a high proportion of population, can raise substantial funds and increase efficiency. The third type of community financing is third party insurance carried out by the community and covers high-income families and improve access. The fourth is provider-sponsored insurance implemented by hospitals, covering high-income households, and has the potential of increasing access. The final type is provider or consumer cooperatives that cover members and improve efficiency and access. The study reviews successful working of various financing schemes. Various community financing schemes in place in other countries include China's Cooperative Medical System (CCMS), Indonesia's Dana Sehat, Thailand's Health Card, Bangladesh's community financing schemes, such as the Grameen Health program, the Gonoshasthaya Kendra health care system, Dhaka Community Hospital Health insurance program (more details can be seen in (Hsiao 2004, ch. 3). Financing of health care services in the Asian region is constrained due to the fact that many poor households are not able and willing to pay for health services. Very poor households even need subsidies and exemptions in seeking primary health care. Countries that provide direct subsidies include Thailand and Tanzania. Indonesia provides community-based third party insurance and Bangladesh provides provider sponsored insurance. In Pakistan, various voluntary organizations are working to provide health services in line with the federal and provincial governments. These include Pakistan Medical Association, All Pakistan Women Association, Pakistan Red Crescent Society, Pakistan Pediatric Association, Punjab Anti Tuberculosis Association and Rawalpindi Eye Donor Organization. However, these voluntary organizations do not have any specific health care financing mechanism in place. They usually provide specific health services on need basis. These organizations can be a good first point to initiate community-financing schemes in Pakistan.

#### **4.3 Experience of the developed countries**

Many developed countries provide health care through government or provide publicly funded health insurance with comprehensive coverage (see Folland et al 2004). For example, social insurance policies in the US include subsidized provisions of services, old age benefits, disability programs, and unemployment benefits. Health related social insurance includes contributions, benefits, length of coverage, and (receipt of care) reimbursement for providers (provision of care). In the US, Medicare provides compulsory hospital insurance to the elderly, whereas, Medicaid is operated by the states with equal dollars provided by the federal government. The Medicare program covers almost more than 95 percent of the aged population. Medicaid provides cash assistance to the poor people, and the emphasis is on health care provision for children, mothers, disabled and the elderly. Medicaid recipients require small average expenditure per person each year. In 2000, the total expenditure for Medicaid was 194.7 billion dollars. The US health care, however, does not provide a comprehensive social insurance program (see Folland et al 2004).

Canada has adopted a comprehensive and universal national health insurance program that is increasingly becoming more popular in the US. In Canada, provinces and territories provide and administer a comprehensive health insurance supported by the federal government. The criteria set by the federal government require that health care coverage must be universal with the option that individuals can transfer their coverage to other provinces. Canada allocated 10 percent of GDP to health in 2003, and health expenditure grew about 32 percent and per capita health expenditure was 3839 dollars in 2003 (for details of Canadian health system (see Coyte 1990). Britain's National Health Service (NHS) provides health care to all residents and is financed through general revenues for regional and district levels. The NHS pays general practitioners on a capitation basis and hospital physicians on a salary basis. In addition, private health care system is also in practice but that is not entirely free and requires co-payments. In the UK, per capita health spending was 1763 dollars in 2000. There exist some regional disparities in funding and use of health care (see Folland et al 2004). The comparative health care systems in the developed world, thus, share characteristics of almost universal access to health care, a high level of per capita spending on health, a high GDP per capita, high health spending and high public expenditures as a percentage of GDP. The insurance markets are well established with state subsidies for the poor, along with less financial barriers.

## **5 Discussion/Policy Implications**

Over the past many years, Pakistan has not been able to increase its public health spending for health care. More recently, public health threats such as HIV/AIDS, socio-economic instability, and natural disasters threaten sustainability of public health funding. As globalization is increasing, many economies – such as Indonesia, China and Bangladesh – are encouraging unregulated market approaches to the delivery of health services. The developing countries share common characteristics of poverty, illiteracy, population growth rates, and agricultural or labor markets. However, different developing countries are addressing the issue differently depending on their level of socio-economic development. But a common issue is about the role of government in health care finance and delivery when public health spending fails to meet the health care demands of its people. In Pakistan, health expenditure as a percentage of GNP remained stagnant around 0.8-1 percent over the past 20 years but private expenditures grew massively. Hence, a related question of regulating the private sector so that the already scarce government resources are not depleted. However, health care financing is a broad term concerned both with allocation and mobilization of financial resources for health care. The focus of this paper is on resource generation through alternative strategies that should not be taken as one-time activity but as an ongoing process. At the same time, macroeconomic context is also important to be able to decide which resource mobilization strategies can (not) raise significant revenues or help in cost recovery.

As the experience of other countries suggests, the emphasis of health sector development is on health financing and how to raise money for increasing health care demands. The concerns grew faster with the publication of the WHO (2000) report, "Health systems: Improving performance." The report proposed to reduce out-of-pocket payments through certain mechanisms that will ensure greater health care coverage through risk pooling. Many Sub Saharan African countries introduced or increased user fees to raise more revenues but the experience has not been an overall success, and many other factors affected resource generating capacity of user fees, such as low and irregular nature of household incomes and poverty. Hence, in some cases health care utilization rates actually fell, thus raising concerns about the effectiveness of user fees in such economies. Countries like Thailand, Indonesia and Zambia aimed to increase revenues through community-based health insurance schemes. Whereas, many countries of former Soviet Union and Eastern Europe shifted from tax based to more autonomous social health insurance.

For a developing country like Pakistan, it is important to explore alternative sources for generating revenues, bearing in mind the limited capacity of households to contribute towards health funds due to poverty. At the same time it is important to protect the poor people from financial shocks arising as a result of severe illnesses. There are certain issues relating to access of health care for the very poor. First is health care quality and second, travel and time costs associated with health care that may form a significant portion of informal charges for the poor people. Hence, the associated cost burden of illness and loss of labor are important issues that should be addressed before designing any financing strategies for all categories of poor. So far in Pakistan, health services are paid out of general tax revenues, but certain specific taxes can be initiated that are earmarked for health. In Pakistan, regressive nature of taxes is a problem for increasing revenues for health. As the health spending level is low, only a small budget is allocated for health care and that is mainly through revenue from taxation.

However, since accessibility to health services is not high through tax-based health system, reliance will have to be made on seeking alternatives for resource generation for health. An option practiced in many countries is use of user charges but that can only be encouraged when proper price discrimination policies can be devised and implemented to minimize adverse effects on the poor. For user fees, however, as patients have to pay directly for health services, there is no insurance proposed for it. For initiating community financing in Pakistan to mobilize resources, the scope of various voluntary organizations can be extended. The people can take such organizations as first step for providing community-based health insurance with voluntary enrolment. Premiums can be set according to the average risk faced by members. Community financing schemes can spread contributions between healthy and sick, and cover those persons who are not in formal employment. In case of social insurance, the experience of other countries suggests that insurance reduces individual's exposure to risks. Hence, financial accessibility can increase when adopting social insurance, but at the same time it must be remembered that 70 percent of Pakistan's labor force works in the informal sector, and that may subvert the potential of social health insurance. Hence, it is important to design pro-poor schemes, with strong and effective exemption policies for the very poor. To protect the very poor, the major responsibility should be with the government. In Pakistan, health care coverage by the public sector is not universal. Majority of the people do not have access to affordable health care, and drug prices are unregulated.

Resource mobilization strategies for Pakistan cannot be worked out in isolation of the overall socio-economic conditions. The objective of increasing access for health care can be met with more resources. For this purpose, reliance on a single source is not sufficient. Although other alternatives are available, their advantages and disadvantages need to be explored in Pakistan's context. Pro-poor health care financing policies can only be designed when a proper understanding of the context is developed. For this purpose, a variety of financing instruments can be tested for raising revenue, resting assured that the government secures financing for the poor. It is also important to determine socio-economic and geographical profiling of people who need health care most to determine utilization rates.

Table 5: Alternative resources and policy implications for Pakistan

Sources of Revenue	In place (selected countries)	Revenue generating capability	Lessons for Pakistan
Tax-based financing for health	Countries of Eastern Europe, Sub Saharan African countries	In developed countries, where taxes are progressive, taxes raise revenue for health. In countries, where tax system is regressive, more burdens falls on poor people, and hence low revenues are generated.	Many countries are moving away from tax-based to alternative sources of financing, including user fees, SHI, or multiple state insurance funds.
User fees	SSA countries, Cote d'Ivoire, Ethiopia, Lesotho, Zimbabwe,	Low to medium: In the beginning, service charges were very low and revenues amounted to 2-12 percent of government expenditures. Overtime, expenditures have risen to 4-20 percent.	Can affect health service utilization by the poor people. Devise effective exemption policies.. Effective if appropriate price discrimination can be implemented.
Community financing	Asian countries, Indonesia, Thailand, Bangladesh, China, other Central African Countries	Resource generation capacity not exactly known.  Gandaho Levy-Bruhal and other (1997) report 24-99 percent of cost recovery of total operating costs in selected countries such as Mali, Senegal, and Guinea Bissau, Cameroon.	CF schemes are usually not registered. Evidence of community involvement is necessary. Exclusion of poorest from CF schemes. CF schemes can reduce out-of-pocket spending of its members.
Health insurance (Private, social)	Mostly developed countries, US, Canada, UK, Germany, other countries starting SHI include Indonesia, Burkina Faso, Kenya, Zambia	Raise revenues and create independent sources of health financing. SHI can become sustainable with increased coverage of people. Only the relatively well off can afford PHI.	Adverse selection: People with high probability of illnesses join insurance plans and those with low probability do not join. Moral hazard: People may take advantage of membership by using more health care services than required. Insurance plans can incur losses. Cost escalations: demand and supply side cost escalations, and high cost of collecting premiums, irregular sources of income

Similarly, effective exemption policies need to be developed and extent of cross subsidies should be explored for health care financing schemes. Revenue generation may turn out to be a turbulent experience in the short term, but with sound technical design of various policies, maximum benefit can be reaped for the larger benefit of the society in the long run. So far in Pakistan, risk sharing for health services is not common. However, if resources have to be tapped, apart from conventional sources, prospects for social health insurance can be explored from urban areas where there is a strong formal sector, but informal sector is also more or less more organized. For rural area, pre-payment schemes may turn out to be successful through agricultural cooperatives. However, for that to be successful, complete information about the nature and level of charges should be provided to stakeholders.

All revenue mobilization strategies can be effective provided we have improved administrative structures, and health care workers and physicians are involved in the process through all stages. There is also a need to adopt appropriate financial strategies, taking care of adjustment for inflation and, therefore, minimize the risks for adverse selection and moral hazards. Similarly, for illnesses requiring more doctor visits, cost per visit should be reduced. Information on health expenditures by households need to be collected through Household Income and Expenditure Surveys, as household income is positively related to expenditures on health. In Pakistan, number of people living below poverty line was 32.1 percent in 2001-01 (see Economic Survey of Pakistan 2004). Sixty-three percent of them are at the bottom line and can be considered as transitory poor. The widespread poverty and widened inequality of income in Pakistan calls for devising adequate health financing strategies that provide financial risk protection to all against rising costs of illnesses. For raising revenue from alternative sources, the potential of each strategy should be explored, safeguarding the interests of the poor by the government.

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**Annex 1****List of Acronyms**

CF	Community Financing
EU	European Union
GDP	Gross Domestic Product
LB	Live births
NGOs	Non-Governmental Organizations
PHI	Private Health Insurance
PSDP	Public Sector Development Plan
SHI	Social Health Insurance
SSA	Sub-Saharan African countries
UK	United Kingdom
UNDP	United Nations Development Program
UNFPA	United Nations Population Fund
UNICEF	United Nations Children Fund
US	The United States
USAID	United States Aid for International Development
WDI	World Development Indicators
WHO	World Health Organization