Original Article

Public Sector health financing in Pakistan: A retrospective study
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Abstract

Objective: To assess the existing situation relating to investments made by development partners in the health sector in Pakistan.

Methods: This was a retrospective study completed over a period of 6 months in which financial data for the year July 2004 to June 2005 was collected. A uniform matrix was circulated to all the stakeholders in public sector and international donors who had a stake in health. Details of expenses in health over the last 5 years and plans for the next 10 years were requested. Initial draft was shared with all concerned for concurrence before finalization. Simple analysis was carried out on the collected data.

Results: About 80% of the financial resources in the public sector are provided by the Government of Pakistan with non-development and recurring expenses predominating in these allocations. The study shows that Pakistan’s per capita spending on health by the public sector is Rs 375.00 (US$ 6.4) out of which Rs 80 (US$ 1.3) is being contributed by the partners. Majority of the partners contributions are used for development projects.

Conclusions: The study concludes that an additional amount of about 250 billion rupees per year (keeping in mind the recommendations of Commission for Macroeconomics and Health) are required by the health sector. This can only be achieved by allocating at least 50% more for health every year for next 10 years in order to catch up on the lagging targets set by Millennium Development Goals for Pakistan (JPMA 57:311;2007).

Introduction

Health is an intrinsic human right as well as a central input to poverty reduction and socioeconomic development. A greater investment in health is envisaged to save millions of lives in most developing countries and has the potential to produce
enormous economic gains.1 Cost-effective interventions for controlling major diseases exist, but it is perceived that the existing financial and human resource gaps and limited district level managerial capacity are hampering the efforts to extend essential health services to the poor. By consolidating the expenditure information, one can work out the coordinating mechanisms that can oversee progress on planning strategic and long-term investments; sequencing pro-poor health reforms; and making the necessary analyses on strategic choices, financing options and human resources. No such in depth exercise has been conducted in the recent past in Pakistan specifically concentrating on government and partner share in public sector health financing. The above background justified our aim of studying and compiling the public sector health expenditure for Pakistan. With this as a context, this study was conducted with a four fold objective: firstly to develop a brief database of the financial and technical contributions of State and various international multinational and bilateral agencies to health sector development in Pakistan. Secondly, to recognize the areas where more than one agency/organizations are working in order to coordinate their activities, avoid negative duplication and prevent waste of resources. Thirdly, to identify the expenditure gaps that need to be filled in the health sector and fourthly to set a benchmark for evaluating future health expenditure assessment and provide a background for preparation of national investment plan.

**Methodology**

The WHO country office was assigned the task to lead the project. It was initiated in October 2004 and final draft was ready in March 2005. An initial work plan was prepared and a list of partners was compiled including government departments, bilateral and multilateral organizations, major civil society organizations and UN system working in health and population sector. A letter of introduction was sent to all of them requesting relevant information after explaining the objectives of the study. To maintain the uniformity of the document a matrix was designed which had to be filled in by the partners along with any additional descriptive information about their technical inputs. The health and population expenditures in the last five years and the planned budgets for the next five years were required to be reported. This was in line with most of the development plans, the government and the
organizations have for health sector.
A first draft was prepared after receiving the above information and was shared with all the contributors. This draft also included data from ministries, national programs, provinces and districts, which was acquired from relevant departments, government publications, provincial budgets and district records. All the partners were requested to verify the information included in the document as per their records and concurrence was confirmed from each stakeholder. A simple analysis of the aggregated data was carried out to find out the available financial input in the health and population sector during the fiscal year 2004-5. The development versus non-development expenses, district and provincial comparisons, trends in donor contributions, per capita spending in public sector by various partners and other descriptive analyses were also carried out. Some adjustments and extrapolations were made based on means and averages of last years to simplify the calculations made during the analysis. However, an effort was made to keep the results simple and understandable. Various financial/technical inputs and areas of interest were arranged in a tabulated form for ease of reference. The results were discussed in the context of various government policy documents such as 10 years prospective plan2, National Health Policy3, Medium term Development Framework4 and Millennium Development Goals.5 The programmatic response by the government and partners is also taken into consideration during the discussion in which certain recommendations and suggestions have been addressed keeping in mind the Macroeconomic Commission for Health (MCH) Report for increasing investment in health and population sector of developing countries.1

Results
The aggregated resources in public sector for health and population sector during the year 2004-5 were estimated at around Pak Rs 56 billions (US $ 0.93 billions). The federal and provincial health departments along with ministry of population welfare had allocated Rs 45 billion (US $ 0.75 billions) where as the share of partners was about Rs 11 billions (US $ 0.18 billions) (Figure) which is 21% of the total allocations. The partners' contribution in Federal Public Service Development Program (PSDP) over the past five years shows a progressive increase since 2001. The public sector spent Rs 375.00 (US$ 6.4) per head on health of Pakistani population in 2004-5, as per our analysis. The share of donors and international
agencies is Rs 80.00 (US$ 1.3) per person out of the total amount. These partners in health

Table 1. Fields of input by various partners and the government.

<table>
<thead>
<tr>
<th>Program area</th>
<th>Project</th>
<th>Lead department/agency</th>
<th>Allocated Resources (US $ in millions)</th>
<th>Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternal and child health (MCH)</td>
<td>National Program for FP and PHC</td>
<td>MoH</td>
<td>364.6</td>
<td>2003-08</td>
</tr>
<tr>
<td></td>
<td>EPI</td>
<td>MoH</td>
<td>90.4</td>
<td>2000-05</td>
</tr>
<tr>
<td></td>
<td>Women Health Project</td>
<td>MoH/ADB</td>
<td>62.3</td>
<td>2001-07</td>
</tr>
<tr>
<td></td>
<td>Reproductive Health project</td>
<td>MoH/ADB</td>
<td>45.0</td>
<td>2004-08</td>
</tr>
<tr>
<td></td>
<td>Neonatal tetanus control project</td>
<td>MoH/BC</td>
<td>14.5</td>
<td>2004-06</td>
</tr>
<tr>
<td></td>
<td>Population welfare program</td>
<td>MOPW</td>
<td>664.2</td>
<td>2001-11</td>
</tr>
<tr>
<td></td>
<td>Support for district health services</td>
<td>WHO</td>
<td>0.18</td>
<td>2004-05</td>
</tr>
<tr>
<td></td>
<td>Improved Pakistani RH and FP</td>
<td>USAID</td>
<td>68.0</td>
<td>2002-08</td>
</tr>
<tr>
<td></td>
<td>Maternal and Neonatal services</td>
<td>USAID</td>
<td>0.21</td>
<td>2003-06</td>
</tr>
<tr>
<td></td>
<td>RH services project (Sindh)</td>
<td>DFID</td>
<td>0.33</td>
<td>2000-05</td>
</tr>
<tr>
<td></td>
<td>Community based RH project</td>
<td>DFID</td>
<td>0.55</td>
<td>2000-05</td>
</tr>
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<td>Community based RH extension</td>
<td>CIDA</td>
<td>0.27</td>
<td>2000-06</td>
</tr>
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<td></td>
<td>Maternal Health care project</td>
<td>UNICEF</td>
<td>23.3</td>
<td>2004-08</td>
</tr>
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<td></td>
<td>Immunization &quot;plus&quot; project</td>
<td>UNICEF</td>
<td>23.3</td>
<td>2004-08</td>
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<tr>
<td></td>
<td>Child Survival project</td>
<td>UNICEF</td>
<td>23.3</td>
<td>2004-08</td>
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<td>Reproductive Health</td>
<td>UNFPA</td>
<td>29.7</td>
<td>2004-08</td>
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<td></td>
<td>Population and development</td>
<td>UNFPA</td>
<td>0.45</td>
<td>2004-08</td>
</tr>
<tr>
<td>Program area</td>
<td>Project</td>
<td>Lead department /agency</td>
<td>Allocated Resources (US $ m millions)</td>
<td>Period</td>
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<tr>
<td><strong>Health systems</strong></td>
<td><strong>Planning</strong></td>
<td>WHO</td>
<td>0.5</td>
<td>2004-05</td>
</tr>
<tr>
<td></td>
<td><strong>Strengthening health services in Pakistan project</strong></td>
<td>CIDA</td>
<td>1.5</td>
<td>2001-05</td>
</tr>
<tr>
<td></td>
<td><strong>Support for health reformNWFP</strong></td>
<td>GTZ</td>
<td>3.3</td>
<td>2003-07</td>
</tr>
<tr>
<td></td>
<td><strong>Support to HSA</strong></td>
<td>GTZ</td>
<td>3.9</td>
<td>2004-07</td>
</tr>
<tr>
<td><strong>Infra structure for basic health</strong></td>
<td></td>
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</tr>
</tbody>
</table>
services (NWFP) 08.5 2005-08
Population and development strategies support UNFPA 04.6 2004-08
Health management systems JICA 02.0 2004-05

Population and development strategies support

Health management systems

Budgetary support to National Health Facility (NHF) DFID 109.6 2004-07
Support to National Health Facility (NHF) USAID 08.0 2003-08

sector include multilateral donors such as Asian Development Bank (ADB), World Bank (WB), European Union (EU), Global Alliance for Vaccines and Immunization (GAVI), Global Fund to Fight AIDS, TB and Malaria (GFATM), bilateral donors such as the Department for International Development (DFID), the United States Agency for International Development (USAID), Japan International Cooperation Agency (JICA), Canadian International Development Agency (CIDA), GTZ and UN System consisting of WHO, United Nations Children's Fund (UNICEF), World Food Program (WFP) and United Nations Population Fund (UNFPA). The relevant fields of input by various partners and the government are listed in Table 1 which shows that major contribution have been in the areas of maternal/child health and communicable diseases.

Donors

Among the multilateral donors, the World Bank and the Asian Development Bank are the two largest donors to the health sector, with other smaller multilateral donors providing additional funding. In terms of bilateral donors, DFID has been and continues to be the most important donor by a large margin. The return of USAID to Pakistan in recent years, will also increase the amount Pakistan receives in terms of donor assistance for the health sector. The UN system contributes 5% of total health sector investment. It is important to emphasize that the health sector is to receive the largest amount of United Nations Development Assistance Framework (UNDAF) funds for the 2004-08, a fact which underscores the importance of the health sector and the focus of the UN agencies in Pakistan towards health. The amount to be made available to the health sector is $ 161.6 million, which is more than 26 percent of the United Nation's financial commitment
to Pakistan for this period. Of this allocation, WHO and UNICEF together provide as much as 78 percent.

Majority of the donor contributions are not reflected in the federal PSDP however this forms a sizable chunk as is shown by "Inventory of health and population investments in Pakistan" published in 2005 by WHO for the year 2005. Given these considerations a system for tracking contributions made by donor and development agencies are a prerequisite.

Government Spending for Health

The government's health budget has been progressively increasing with almost 3 folds increase in the federal PSDP, over the last few years but there has been no absolute increase in terms of percentage of GNP which has remained static at below 0.7%. The analysis of health financing of last decade (1995-05) shows a total spending of Rs 240 billions (Rs 24 billion/year average[0.4 billions US $/yr]). Total development expenditures were Rs 66 billion (26%) and non-development bill was Rs 174 billion (74%). The share of federal government was Rs 55 billion and share of provincial governments was Rs 185 billion of total health expenses (Source: Economic survey of Pakistan, various issues). The total federal and provincial budget is projected to increase up to 60 billion rupees (US $ 1 billion) per annum by 2010 (Table 2) out of which 20.5 billion (US $ 0.25 billions) per annum will be earmarked for development projects (Source: Federal and provincial budget books). However, these figure have not been adjusted for inflation and population growth.

The federal MoH has a number of major preventive programmes being funded by the federal and provincial budget jointly. These programs are coordinated by the federal ministry through the national and provincial programme managers throughout the country. Every province and district has a focal person for each of these programmes who is responsible for smooth implementation of the project in their respective districts. The health partners and donors have been contributing to these projects in varying capacities. The provincial health departments are the cornerstone of health hierarchy in Pakistan; they work independently under the guidance of federal MoH and have their own budgets. The most important tier after devolution in 2001 is the district government. The annual district health budgets have been analyzed in depth for the last year and have been discussed in our publication "Health and population Investment Inventory in Pakistan". The provincial and district governments spend more on recurring expenses as compared
to the federal government.
The population policy 2002 plans to bring down the population growth from 1.9 \% in 2004 to 1.3 \% in 2020. The government budget for population activities is spread among many ministries with the largest share to Ministry of Population Welfare. The budget for 2003–2004 for the federal population ministry was Rs 128.2 million (US $ 2.13 millions) where as the in 2004-2005 the allocation was Rs 128.9 millions (US $ 2.14 millions). A number of donors are actively collaborating in this area including USAID, DFID, and UNFPA. Their contribution is US $ 50 millions, US $ 12 millions and US $ 13 millions respectively, over the five year period of 2003–2007.

A large number of public sector organizations including WAPDA, Pakistan Railways, Bait ul Maal, PIA and others contribute a significant amount to health expenses although most of these expenses are in curative side. The private sector almost exclusively provides curative health care rather than preventive care and covers a large proportion of the population. In our analysis we have not been able to capture expenditures in private sector due to the absence of a data collection mechanism. Moreover the analysis has also not been able to capture pro-bono contributions, such as those by the NGOs Heartfile and others which specifically target strategic areas for health systems strengthening. It is absolutely necessary to do such an exercise as soon as possible.

Table 2. Projected Health Sector Budget Outlay for 5 Years Pak Rupees in million (US $)

<table>
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<tbody>
<tr>
<td>1. Federal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a Development</td>
<td>8,300 (138.3)</td>
<td>9,130 (152.2)</td>
<td>10,500 (175)</td>
<td>11,000 (183.3)</td>
</tr>
<tr>
<td>b Non Development</td>
<td>3,234 (53.6)</td>
<td>3,730 (62.2)</td>
<td>4,289 (71.5)</td>
<td>4,932 (82.2)</td>
</tr>
<tr>
<td>2. Provincial</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a Development</td>
<td>5,500 (91.7)</td>
<td>6,000 (100)</td>
<td>6,500 (108.3)</td>
<td>7,500 (125)</td>
</tr>
<tr>
<td>b Non Development</td>
<td>19,272 (321.2)</td>
<td>22,163 (369.4)</td>
<td>25,487 (424.8)</td>
<td>29,310 (488.5)</td>
</tr>
<tr>
<td>3. Federal + Provincial</td>
<td></td>
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</tbody>
</table>
ii. Federal and provincial budget books

### Discussion

Life expectancy in Pakistan has risen from 54 in 1978 to 63 today, still low by comparable standards. In the last 25 years the infant mortality rate has fallen from 120 in 1978 to 74 today, with 40 percent deaths in the neo-natal period, while the maternal mortality rate is still very high at 350 per 100,000 live births. While the child mortality rate has fallen from 140 to 98 in 25 years, the fact that more than 35 percent of children under five are malnourished is indeed quite worrying. Data from the Ministry of Health of the Government of Pakistan shows that deaths are mainly attributable to communicable diseases. In the year 2000, diarrhoeal diseases followed by respiratory ailments were major causes of death in Pakistan.

However the current demographic and socio economic transition of Pakistan is witnessing a double challenge where in addition to the prevalent communicable disease, non communicable diseases and accidents predominate. Recent population weighted data on out of pocket spending show that a significantly higher percentage of households spend more on treatment of non-communicable diseases compared with communicable diseases. Clearly, diseases that affect the economically productive workforce; ailments that undermine the income generating power of a household; diseases that have the potential to perpetuate an acute poverty crisis and contribute to major costs of care and put of pocket payments should also merit due consideration in the approach to health sector resource allocations.

While the relationship between health (or more importantly, ill-health) poverty and underdevelopment is clear, the not so surprising consequence is that poorer countries with low-income and low-development, have far fewer financial resources in general, and for the health sector, in particular. The Commission has also provided evidence that the level of spending on health in many developing countries is insufficient to address the challenges that they face. A minimum level
of financing needed to cover essential health interventions of between US $ 30-40 per capita is required, in contrast with actual levels of spending of the order of US $ 13 per person in the least developed countries and US $ 24 in other low-income countries. Clearly, the ability to fund minimum required spending levels to cater for a substantial and vulnerable population, is beyond the scope of many countries showing a very clear resource gap. This gap is more prominent in Pakistan when the total spending in public sector is US $ 6.4 per capita.

Resource gap in Pakistan
The public sector is spending Rs 375.00 (US$ 6.4) per head on health of Pakistani population in 2004-5, as per our analysis (Pak Rs 56 billions). The share of donors and international agencies is Rs 80.00 (US$ 1.3) per person out of this amount. As much as two-thirds of the rest of the total health expenditure (THE = US$ 16) originates from the private sector. Almost all of this 2/3rds, unlike in many developed countries, is in the form of direct individual out-of-pocket payments.

The recommendations of commission are to increase the level of health expenditures to at least US$ 34 in the public sector for essential health interventions by the year 2015 to achieve MDGs. In order to cover this gap of US$ 28 in public sector health expenditure, Pakistan will have to spend 50% per annum more on health sector over the next 10 years (i.e. at least 50% increase in health budget each year). Keeping in mind the projected population and the current spending, this will amount to about Pak Rs 300 billion per year by 2015. The health sector prospective plans and budget outlay for the next five years lags behind the required pace with an average increase of 15% per annum as compared with the suggested increase of 50% per annum. The current contribution of partners (20% of total public health expenditure) will translate into Rs 60 billion by 2015, again an increase of 50% per annum for the next 10 years.

With reference to the ratio between development and non-development budgets, a comparison of the 2003/04 and 2004/05 federal and provincial development and non-development budgets shows a major dominance of non-development budget in the provinces. This gap appears to have widened over the last 10 years whereas at the federal level, trends have been comparatively favourable. In relation to the ratio between prevention and tertiary care allocations a comparison of the primary healthcare budgets with clinical health program budgets in successive Five-Year Plans shows that clinical services have consistently consumed more than 45% of the total health budget. In addition the percentage of the PSDP allocation
earmarked for preventive programmes has declined whereas an increase in allocations for hospitals is seen.13  

Pakistan's resource gap is large but not unachievable - both government and partner funding are required to provide health care to all Pakistanis by 2015, preferably as soon as possible. More specific targets relate to Pakistan reaching Millennium Development Goals (MDGs) by 2015 or earlier. The existing health indicators and the targets that need to be achieved show a clear 'health' gap5, which exists partly due to the resource constraints. In order to achieve these targets fully or partially, funds will have to be found as well as issues related to governance and structure, be addressed. 

Pakistan's economic situation has improved dramatically since the past few years and that has generated an unprecedented fiscal space making additional resources available. This is further substantiated by the last 3 years impressive growth rate of about 7-8% with an unprecedented rise in per capita income up to US$ 838. The trends in the present budget 2006-07 has also shown more funds for development and a substantial increase along with emphasis on public health issues as water borne diseases, maternal and child health and other communicable diseases.14 

The most important precondition for Pakistan meeting its resource gap and filling its social sector gap is to emphasize on policy makers at the federal and provincial levels to make firm commitments for additional funding and to acknowledge the relationship between poverty, health and the relevance of the vital social sector to the attainment of MDGs. Last but not the least the development sector needs to achieve the capacity to absorb additional funding which will be channelized into health system by the government and the donors in the coming years. In our opinion similar situation prevails in majority of developing countries and a comparable exercise on the same scale will help the respective ministries and departments in achieving the desired goals.

References
Commentary on healthcare financing in Pakistan

Badar Siddiqi
Chairman, JPMA

It was with considerable interest that I went through the paper because of the importance of finance in healthcare delivery. I have the following thoughts on the issues raised and discussed in the paper.

Concept and structure of the paper

I found the structure of the paper quite confusing, just to mention a few examples: The section with the heading 'Abstract' has the following stated objectives: "overall objective of assessing the existing situation relating to investments made by development partners in the health sector in Pakistan.

Then in the next section headed as 'Introduction', at the end of this section another
set of four objectives is given: "this study was conducted with a fourfold objective: firstly, to develop a brief database of the financial and technical contributions of State and various international multinational and bilateral agencies to health sector development in Pakistan. Secondly, to recognize the areas where more than one agency/organizations are working in order to coordinate their activities, avoid negative duplication and prevent waste of resources. Thirdly, to identify the expenditure gaps that need to be filled in the health sector and fourthly to set a benchmark for evaluating future health expenditure assessment and provide a background for preparation of national investment plan." For clarity and more reader-friendliness it would have been useful to consolidate all the objectives at one place.

The first section "Abstract "also makes the following conclusions: "The study concludes that an additional amount of about 250 billion rupees per year are required by the health sector representing a 5 fold increase of the existing health budget. This can only be achieved by allocating at least 50% more for health every year for the next 10 years with an emphasis on known effective preventive strategies in order to catch up on the lagging targets set by MDGs for Pakistan. However enhanced, allocations can only impact on health outcomes if they are equitably and efficiently utilized to delivery programmes by robust health systems with adequate capacity."

It appears to one that the conclusions do not fully and fruitfully reflect the areas which are stated in the objectives and leave the reader at a loss.

Conceptual problem with the paper
One finds a basic conceptual problem as to the design of the paper, especially when the objectives are to work out a basis for the "future planning and strategies for healthcare financing replication in other developing countries". In the evolving paradigm of the rapid change towards globalization, free economy and privatization, the role of the state in delivery of social services including healthcare is undergoing a rapid change both in developed and developing countries.

To project and base the future financing of the health sector on a manifold jump of state and donor input - as suggested by the authors - is a wish of us all, but unfortunately with no relevance to reality.
In this context it may be pertinent to look at WHO documents on progress on MDG last in 2005. The WHO published the result of progress after 5 years of signing of the declaration by heads of states of 189 countries in 1990. The results have been disappointing looking at the financial side, and worst in Sub-Saharan Africa and South Asia.
The published result concludes: "Recognizing that current and projected levels of funding are insufficient to provide even a minimum set of health services in low income countries has two implications. Firstly, if countries are to have any chance of achieving the millennium development goals, they need to re-evaluate existing strategies to determine whether more could be achieved with the resources already available. Indeed, they are likely to be able to achieve more immediately by replacing less effective strategies with more effective ones. Secondly, countries need to have a clear practical plan on how additional funds are to be raised and best used to maximize their chances of attaining the goals."
WHO documents
The ground realities under the new paradigm is the changing role of the state in healthcare financing of public institutions for example by public-private partnerships. Financial input from civil society in the form of financing from the corporate sector, NGOs, religious and non-religious organizations and large input by individual families to name a few has to be quantified and its present and future role defined.
It would have been practical and relevant to add to the questionnaire sent out an enquiry into existing public-private partnerships to find out the benchmark regarding their contribution at present to the public institutions.
The important objective stated "Understanding the role of partner agencies and the value that these contributions bring to the health sector".
The paper disappointingly only ends with listing of the vertical programs and fails to address the serious concerns about donor funded vertical programs.
To name a few important issues which concern the donor input in the health sector:
- long-term financial sustainability
- duplication and wastage
Vertical health programmes in poor countries pose serious strain on fragile health infrastructure and distort national health priorities. Limited and poorly motivated health workers are drawn from the poorly funded national health programs.
The study in my view started with very important objectives, but unfortunately lost
its way to be of any practical application in healthcare planning. Anyone interested in the subject must refer to the document of the Health Ministry in which the problems in our public health system had earlier been thoroughly studied and analyzed in 1991-1993.

The objectives of this consultative study was to reform the organization and financing of our health services by firstly, making more resources available and increasing allocation to health; secondly, improving the cost-effectiveness of health spending; and finally, ensuring the physical and financial access to basic health services for lower socio-economic status groups.

What emerged from the study was a set of five comprehensive volumes ~ published in 1993 on "Policy options for financing health services in Pakistan". This study is still very relevant in Pakistan context.