

**USER CHARGES IN
HEALTH**

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August 1994

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EXECUTIVE SUMMARY

The most topical issues in the delivery of health care in the developing countries relate to the efficiency of public health care delivery systems and the role of the private sector. It has been argued that user charges and greater privatisation will lead to greater cost-effectiveness and responsiveness to consumer preferences, with equity suffering as a consequence.

In Pakistan, the services in the health care system range from the preventive health care programmes operated by the government to the curative health facilities operated under both the public and the private sectors (the latter ranging from the pure commercial operations provided by the specialists to the free facilities operated by public spirited trusts and charities). In the public health service the growth of infrastructure has been much higher in rural areas. Private sector health facilities are largely urban based and curative. The private sector health care facilities cater to about a quarter of the patients treated in hospitals, but the conditions in the smaller hospitals are generally only marginally better than in the public hospitals.

Even though public expenditure on health has been increasing over time from Rs 727 million in 1980 to Rs 6,035 million in 1992, it represents only a very small proportion of the GNP (0.7% to 0.8% over the period). Per bed expenditure in current terms has increased from Rs. 11,000 per bed-year in 1980 to Rs. 46,000 per bed-year in 1991, that is at an annual rate of 14.4 percent. Expressed as per patient costs the annual increase has been at a rate of 11.2 percent in nominal terms. On the other hand, cost recovery ratio is very low declining from 4.9 percent in 1980 to 3.5 percent in 1992.

A study of the profile of the health care services suggests that they require a number of improvements, the most important of which are related to management and institutional changes. A number of management problems originate with general regulations. For instance, the delegation of financial and personnel powers would require either special exemptions or changes in overall government regulation. A second area of concern is planning for health care services. Current practice does not use any form of analytical methods either for projections or the analysis of alternatives. Instead, decisions are based on opinion. A third area of concern is the remuneration structure. The quality of services provided by the private sector need also to be monitored and controlled.

The introduction of user charges immediately raises the question of affordability and its corollary willingness to pay. An analysis of the Household Income and Expenditure Survey of 1984-85 was undertaken. Affordability has been defined as the surplus available after meeting basic nutritional needs (represented by the poverty level expenditure on food) and at least half the expenditure on non-food items. The analysis shows that households earning more than Rs. 3,500 per month in the urban areas and Rs. 2,000 per month in the rural areas were able to generate a surplus.

Estimates of willingness to pay have been derived from a small survey of private sector health institutions operating in the low income areas of urban Pakistan. The principal objective of the survey was to estimate the level of user charges by different types and levels

of medical institutions. The survey shows that there is a possibility for full cost recovery of hospital care even in the low income areas. The survey also shows that OPD care provided by the non-profit GP clinics are subsidised substantially, and that non-profit MCH clinics operate on the margin. Thus, the public sector hospitals should be able to achieve full cost recovery also subject to the condition that they provide a comparable level of service. For equity considerations the out-patients facilities in the public sector health care institutions should continue to be subsidised as is the case today.

The analysis of affordability and willingness to pay indicated that there was a considerable gap between these and the user charges levied in the public health care system in Pakistan. Therefore, the case for increasing user charges in public health care facilities has, we feel, been established. As an immediate step, therefore, governments in Pakistan should raise recovery rates to one-quarter that of the minimum cost recovery rate in the charitable hospitals. Thus the recovery rates need to be enhanced by a factor of five times to 17.5 percent of expenditure. This should be increased subsequently by 10 percent each year until it reaches 70 percent for the primary health care units (BHUs in the rural areas and dispensaries in the urban areas) and full cost recovery in the teaching and other specialist hospitals.

Given the historical profile of expenditure and its extrapolation into the future and the implementation of the proposed strategy the cost recovery to the end of the Perspective Plan period would be as follows:

FISCAL YEAR	EXPENDITURE	REVENUE	CR RATIO
1996	Rs 9992 Min	Rs 1749 Min	17.5%
1997	Rs 11820 Min	Rs 3250 Min	27.5%
1998	Rs 13983 Min	Rs 5244 Min	37.5%
1999	Rs 16542 Min	Rs 7857 Min	47.5%
2000	Rs 19569 Min	Rs 11252 Min	57.5%
2001	Rs 23150 Min	Rs 15418 Min	67.5%
2002	Rs 27387 Min	Rs 20458 Min	77.5%
2003	Rs 32398 Min	Rs 26308 Min	87.5%

The government should also consider innovative mechanisms of inducting the private sector and the local governments into expanding their role. Following the results of a future study on improving the resources for health at the local government level, we would recommend that initially only the large urban areas, say with a population base of 750,000 or more, be required to take on full responsibility for primary health care. The private sector role could be enhanced in a number of ways, but needs to be studied in depth before adopting any of the approaches suggested.

CHAPTER ONE

INTRODUCTION

The most topical issues in the delivery of health care in the developing countries relate to the efficiency of public health care delivery systems and the role of the private sector. At the heart of this debate lies the availability of resources within the public sector as political considerations continue to expand public health care facilities for the middle and higher income groups at the cost of the poorer segments of society. This further exacerbates the already poor record of equity and efficiency prevalent in the public health care system [Birdsall 1992]. It has been argued that user charges and greater privatisation will lead to greater cost-effectiveness and responsiveness to consumer preferences [Akin 1987; Jimenez 1987] with equity suffering as a consequence.

Inefficiency in the delivery of public health care stems from the needs for government to react to demands rather than do what should be done. It has been argued, within the framework of public choice theory, that the chief agents in government act to maximise individual utility rather than social welfare. Thus, politicians may be seen to maximise their own chances of staying in power, bureaucrats to maximise their budgets and the individuals to use government to maximise their real incomes through exploiting the direct provision of services and transfers [Borcherding 1985; Mueller 1979].

It has also been argued that in the developing countries the health care system works under circumstances where the demands placed on them outstrip the resources available. This requires that a choice be made to extract the most from their limited budgets. It has been

suggested that this could be achieved either by rationing access to within a given budget limit or by recovering costs through user charges thus supplementing the given budget. This would, of course, deter people, particularly the poor, from using the desired and effective services [Hammer 1993].

1.1 The Profile of Services

In Pakistan, the services in the health care system range from the preventive health care programmes operated by the Government through the Departments of Health in the provinces to the curative health facilities operated under both the public and the private sectors (the latter ranging from the pure commercial operations provided by the specialists to the free facilities operated by public spirited trusts and charities). Information on the breakup between the private and public sectors is not available readily in any published form.

The available statistics on the number of public sector facilities is shown in Tables 1 and 2. Both Tables show the distribution of these facilities by type and implicitly by location (as some of the institutions are located in the rural areas only).

Table 1 shows that the growth of infrastructure has been much higher in the rural areas, for instance 16.1% annually for basic health units which are comparable to dispensaries in the urban areas which increased in number by a meagre 1.2% annually in the eighties. Table 2, also shows a similar pattern. While beds in the urban areas (in hospitals) have increased annually by 3.9%, in the rural health centres they have increased at a rate of 9.4% annually.

TABLE 1
PUBLIC SECTOR INSTITUTIONS

	Hospitals	RHCs ^a	MCH	TB Clinics	Dispensaries	BHUs ^a
1980	585	228	803	90	3429	651
1981	600	243	823	98	3478	774
1982	613	283	817	98	3457	1587
1983	626	302	794	98	3351	1982
1984	633	319	787	96	3386	2366
1985	652	334	778	100	3415	2902
1986	670	349	773	101	3441	2902
1987	682	383	798	104	3498	3150
1988	710	417	998	211	3616	3454
1989	719	448	1027	211	3659	3818
1990	756	459	1050	220	3795	4213
1991	774	464	1057	219	4007	4384
Trend Growth						
Rates	2.5%	6.6%	2.8%	9.3%	1.2%	16.1%

^aIn Rural areas only.

RHC = Rural Health Centre

MCH = Maternity and Child Health Centre

BHU = Basic Health Unit

TABLE 2
NUMBER OF BEDS

	Hospitals	RHCs^a	MCH	TB Clinics	Dispensaries	BHUs^a
1980	41281	1781	100	146	3312	12
1981	42932	1979	104	143	3263	20
1982	44634	2354	81	108	3146	12
1983	46475	2462	76	108	3016	24
1984	47872	2560	70	108	2993	32
1985	49999	2711	72	108	2934	62
1986	51608	2839	88	110	2912	152
1987	53480	3138	98	106	2863	324
1988	57237	3502	150	106	2866	510
1989	57931	3568	146	106	2843	684
1990	60973	5226	152	150	2851	2530
1991	63540	5669	150	114	2811	3268
Trend Growth						
Rates	3.9%	9.4%	5.8%	-0.9%	-1.4%	54.8%

^aIn Rural areas only.

Some measure of the quality of service provided by the public sector health services may be seen from the data shown in Table 3. The access to the number of beds available in the country has increased from 1 bed per 2,000 persons to 1 bed per 1,800 persons in the eighties. Similarly the pressure on the number of doctors has declined from 6,700 persons for every doctor in 1980 to 2,100 persons in 1991. It has been argued that as a result of a decline in the quality of the students admitted to teaching hospitals has also been accompanied by a rash increase in nepotism and the use of unfair means Pakistan is producing under-trained doctors with very little medical knowledge in both theory and the practice of medicine. However, the pressure on utilisation of hospital beds has increased from 21,500 patients per bed in 1980 to peak at 34,500 in 1986. Since then this has been declining annually and was 29,400 patients per hospital bed in 1990. Per bed expenditure in current terms has increased from Rs. 11,000 per bed-year in 1980 to Rs. 46,000 per bed-year in 1991, that is at an annual rate of 14.4% (inflation between 1980 and 1991 has been of the order of 7.4% yearly). In other words, in real terms the public sector expenses in hospital care have increased by about 7 percent per year. Expressed as per patient costs the annual increase has been at a rate of 11.2% in nominal terms (about 3.8% in real terms).

The private sector health care facilities account for the bulk of the services offered, with private spending accounting for nearly 60% of all health expenditure. The services are largely urban based and curative, are used mainly by the richer segments of society and have a large variation in quality. This latter is the result of the heterogeneity in the sector, ranging from for-profit to non-profit institutions of all sizes, and also due to weak regulation. Even though

TABLE 3
QUALITY INDICATORS IN PUBLIC HEALTH CARE

	Thousand Persons per			Patients/ Hospital & RHC Bed	Recurring Expenses ^a	
	Hospital Bed ^a	Doctor	Nurse		per Bed	per Patient
1980	2.0	6.7	15.1	21.5	11	503
1981	2.0	6.0	13.8	23.0	12	510
1982	1.9	5.0	12.7	23.4	13	569
1983	1.9	4.3	12.2	26.6	16	616
1984	1.9	3.6	11.1	28.5	21	723
1985	1.9	3.2	9.0	31.8	21	676
1986	1.9	2.9	8.2	34.5	26	768
1987	1.9	2.6	7.8	31.2	34	1098
1988	1.8	2.4	7.4	30.2	38	1267
1989	1.9	2.3	6.8	33.7	41	1212
1990	1.8	2.1	6.5	29.4	42	1424
1991	1.8	2.1	6.3	NA	46	NA

^aIndoor Patients only

the private spending is large, financing, insurance and other pre-paid health care mechanisms are underdeveloped [World Bank 1993].

The demand for health care is expected to increase more rapidly than incomes (as income elasticity is greater than one), particularly in the urban areas. Although, public sector allocations to health care are expected to grow, it is expected that these will be at a much lower rate than the growth in demand, thus there is a need for a greater participation by the private sector. It is therefore critical to improve private sector health care so that it is able to meet needs more equitably.

Information on the private sector provision of health facilities is not readily available for Pakistan as a whole. In 1988, the Federal Bureau of Statistics conducted a census of private health facilities throughout the country, the results of which are yet to be summarised. The World Bank has summarised this in the recently completed sector study [World Bank 1993] which is shown in Table 4. This shows the total number of facilities, its urban-rural split and the inter-provincial differences in coverage. The Table shows, for instance, that of the 500-odd hospitals (accounting for over 40% of total) 3 percent were located in the rural areas and that of the approximately 20,000 clinics (GPs operating a private consulting practice) 30 percent were in the rural areas. The inter-provincial coverage shows that in Balochistan 20%, in NWFP 44%, in Punjab 38% and in Sindh only 16% of these were located in rural areas. This preference for locating in the urban areas is reflected in the ratio of the population per facility. On the average, there was one facility for every 2,500 persons in the urban areas and for every 14,000 persons in the rural areas.

TABLE 4
DISTRIBUTION OF PRIVATE FACILITIES 1988

	Number	<u>PERCENTAGE OF FACILITIES IN RURAL AREAS</u>				
		Pakistan	Balochistan	NWFP	Punjab	Sindh
Hospitals	500	3	0	3	5	0
Beds	13000)))))
MCH Centre	300	9	0	9	13	3
Dispensary	340	24	50	38	25	13
Diagnostic Lab	450	1	0	1	2	0
Clinic	20000	30	20	44	38	16
All Facilities		28	19	41	36	15

Ratio of population (in thousands) to private health facilities

Urban	2.5	3.9	2.9	2.9	1.9
Rural	14.0	85.0	21.0	12.0	13.0

The Punjab is the only provincial government which issues statistics on an annual basis which shows the share of the private sector in the provision of health facilities and patients treated. Similar statistics for the Sindh was issued for the period 1987 to 1991 [Sindh 1993]. Estimates for 1986 were obtained from their unpublished records. These have been summarised and are presented in Table 5. These statistics show the buoyancy in the private sector provision of services, for instance, the number of hospitals and hospital beds has been increasing annually by 5.3% and 5.8% respectively between 1986 and 1991, and also that their shares in relation to the total numbers available in these two provinces has increased from 33.9% and 24.6% in 1986 to 40.5% and 28.4% respectively. Moreover, the share in the number of patients has increased from 21.4% to 23.3% for indoor patients and from 14.2% to 18.5% in the same period. This shows that there is an increasing willingness to pay for these services because of the apparently better service provided.

1.3 The Role of the NG Sector

NGOs can be registered in Pakistan with the Ministry or Department of Social Welfare under several laws. The most often used are the Social Welfare Agencies (Registration and Control) Ordinance, 1961 and the Societies Registration Act, 1960.

The number of NGOs in Pakistan in 1989 was estimated to be about 8,400 of which some two-thirds were apparently dormant [World Bank 1993]. NGOs operate largely in the urban areas. An exact estimate of those providing health care services is not available. It has been estimated that between 15% and 55% were active in the sector either completely to the exclusion of other services or only partially as one of their objectives. The services offered

TABLE 5
HEALTH FACILITY COVERAGE BY PRIVATE SECTOR:
SINDH AND PUNJAB

	Facilities		Patients Treated	
	Number	Beds	Indoor	Outdoor (in 000)
1986	164	9529	301	2324
1987	193	11503	391	2618
1988	196	11538	508	2950
1989	201	12007	660	3323
1990	211	12453	668	4285
1991	224	13491	686	4900
Growth				
Rate	5.3%	5.8%	17.1%	15.2%

	Facilities		Patients Treated	
	Number	Beds	Indoor	Outdoor <i>(expressed as percentage of total)</i>
1986	33.9%	24.6%	21.4%	14.2%
1987	38.4%	28.6%	26.5%	13.5%
1988	37.0%	26.4%	32.1%	13.8%
1989	37.6%	27.1%	31.9%	14.7%
1990	39.1%	27.1%	26.3%	17.8%
1991	40.5%	28.4%	23.3%	18.5%

by the NGO operated outlets range from the provision preventive health care, such as immunisation services, to the full curative care offered by the large teaching hospitals. Table 6 shows the number and distribution of registered NGOs by locality and by Province.

Non-profit institutions operated by the NGOs provide an important link in the health care chain. These hospitals are located largely in the urban areas and are much larger. In 1988 there were 74 such hospitals providing over 7,000 beds, that is an average of over 94 per hospital (compared to 60.3 for the private sector as a whole). Most NGOs charge a fee for services which could be a token Rs. 1 or as much as full cost recovery for those using private rooms in the more prestigious hospitals such as the Aga Khan Hospital, the Seventh Day Adventist Hospital or the Holy Family Hospital.

More than a dozen public sector agencies (prominently the Zakat foundations) channel funds to the NGOs through grants-in-aid. In 1988-89 they spent about Rs 90 million on some 3,355 NGOs [World Bank 1993]. The opportunities for funding the NGO activities are expected to increase following the establishment of the Health Foundations and the donor contributions for the SAPP. Even though public sector contributions are large, the bulk of the funding comes from the private donations. It has been estimated that the ratio of own funding (inclusive of private donations) to government funding ranges from 1:1 for the small NGOs to as much as 10:1 for the more established nation-wide NGOs.

TABLE 6
DISTRIBUTION OF REGISTERED NGOs, 1989

	Rural	Urban	Total	Population per NGO
Balochistan	68	218	286	26000
Punjab	1429	2659	4088	15000
NWFP	293	216	509	29000
Sindh	436	2865	3301	8000
AJK & FATA	66	140	206	
Pakistan	2292	6098	8390	13000

1.4 Cost Recovery in the Public Health Care System

Revenues from the provision of health care services in the public sector are in the form of user charges for services rendered by the curative services offered at the Hospitals, RHCs, BHUs and MCH Centres. The dispensaries are expected to cover cost of medication supplied. A breakdown of such receipts is not available. In Table 7 we present the data on the public sector recurrent expenditure on health services and the receipts from these services. Expenditure has increased in nominal terms from Rs. 727 million in 1980 to Rs. 6,035 million in 1992 (18.6% per year). In the same period receipts have increased from Rs. 35 million to Rs. 208 million (14.6% per year). Also shown is an estimate of the expenditure on hospitals based on an estimated share (based on discussions with health department officials) of hospital costs to total costs. As may be seen in the eighties cost recovery rates increased to the mid-eighties to peak at 5.0% in 1986. Since then they fell to about 3.2% in 1989, but have increased somewhat (3.5%) in 1992.

TABLE 7
LEVEL OF COST RECOVERY IN HEALTH SERVICES
 [All values in Million Rupees]

	Expenditure		Receipts Hospital	Cost Recovery	
	Total	Hospital		Hospital	Total
1980	727	466	35	7.6%	4.9%
1981	823	527	37	7.0%	4.5%
1982	978	626	43	6.8%	4.4%
1983	1251	801	59	7.4%	4.7%
1984	1625	1041	75	7.2%	4.6%
1985	1767	1132	81	7.2%	4.6%
1986	2252	1442	114	7.9%	5.0%
1987	3029	1939	97	5.0%	3.2%
1988	3623	2320	117	5.0%	3.2%
1989	3921	2511	126	5.0%	3.2%
1990	4327	2770	143	5.2%	3.3%
1991	4995	3198	174	5.5%	3.5%
1992	6035	3865	208	5.4%	3.5%
Growth					
Rate	18.3%		14.6%		

CHAPTER TWO

INSTITUTIONAL CHARACTERISTICS

The health and demographic characteristics in Pakistan are substantially worse than those of other countries in the region. Maternal mortality rate is high (6 per 1,000), as is infant mortality (103 per 1,000 live births). Malnutrition is widespread (50% of children are stunted) and life expectancy is certainly one of the lowest in the region (56 years for men and 55 years for women). Pakistan has one of the highest population growth rates in Asia (3.1% per year) with very little evidence of a fertility decline. While this is largely because of poverty, poor sanitation and water supply and low levels of literacy, particularly among women (21%), it nevertheless also reflects serious shortcomings in health policy and the design and operation of health care services and facilities.

2.1 Profile of Suppliers and Analysis of Shortcomings

Public expenditure on health has been increasing over time, but is only a very small proportion of the GNP (0.7% to 0.8% in the eighties and early nineties). Overall per capita health care spending (inclusive of private expenditure) compares favourably with the other countries in Asia, but the quality is much lower. The private health care facilities are concentrated largely in the urban areas and are used mostly by the well off. Coverage in the rural areas is poor, even by the public health care services. The main health care issue, therefore, is how to provide a cost-effective service to the majority of the people. Could this be by increasing public expenditure, ensuring greater cost recovery, improving the efficiency of publicly

financed health care, encouraging the private sector where it has comparative advantage and/or encouraging the use of risk-sharing schemes to cover more people.

Health policy is determined by the federal Ministry of Health, but services (except for a few specialist hospitals and clinics) are provided by the provincial departments of Health. Nutrition policy is determined by the Planning Division. Population and family planning services are provided by both the federal Ministry and the provincial Departments of Population Welfare. Coordination is limited.

In the initial 30 years of Pakistan's existence priority for public expenditure was given to expand the hospitals and medical schools. Since the seventies, the focus was shifted to the provision of basic health services in the rural areas. Plans for expansion state that each Union Council would be provided with a BHU and each Tehsil/Taluka headquarter town will be provided with a RHC. While these physical targets have been achieved in most areas, they are nonetheless underutilised largely because of shortage of trained staff (particularly women), deficient supplies, weak planning and management, incomplete infrastructure (inadequate transport, non-availability of electricity, water supplies and staff housing). The improper location of a large number of BHUs and RHCs also add to the understaffing and underuse.

Even though hospitals are continuing to receive the largest share of public sector health expenditure (45%), they often continue to operate inefficiently and ineffectively. Very high outpatient attendance at these hospitals is the result of patients bypassing the basic health care facilities where the service quality is seen to be very poor, marred by absence of both staff and

medication, on the one hand, and poor siting, on the other. This depletes the already meagre resources available to the hospitals (in man, medicine and facilities) and thus leads to greater inefficiency in the system.

The public sector provision of services is further weakened as a large part of the medical personnel, particularly the senior doctors and specialists, moonlight and own their own hospitals, clinics, MCH Centres and Laboratories to which supplicants for their services are directed. The PMDC feels that as much as a half or more of the private sector facilities are operated by these "publicly employed" personnel.

The private sector health care facilities cater to about a quarter of the patients treated in hospitals, but the conditions in the smaller hospitals are generally only marginally better than in the public hospitals, for instance, patients are expected to provide their own food and attendant and in some instances also medication which may be purchased from on-site "self-owned" pharmacies. Most of these pharmacies, as also all off-site or independent pharmacies and medical stores are staffed by inadequately trained staff. Instances of a qualified pharmacist being employed jointly by a number of spatially distributed pharmacies is not uncommon. Similarly a number of doctors, particularly specialists, are found to be on the panel of medical personnel at more than one private sector facility.

Private hospitals are mostly concentrated in the nine big cities of Pakistan. These cities account for more than 75% of private sector hospital beds. The quality of care in the larger hospitals are reasonable to good, but in the smaller hospitals the quality is poor. This is seen

from the outdated equipment, the use of rented housing units and the non-availability of sufficient qualified nursing and paramedic staff because of the low salaries and insecure employment conditions offered.

In 1987 about 41,000 doctors, nurses and para-medics were employed only 9,000 of whom were registered [Pakistan 1988]. The breakup is shown in Table 8. As may be seen a quarter of the doctors were reported to be unqualified (some may have either allowed their registrations to lapse or may not have passed the qualifying examinations). Nearly three-quarters of the nurses and paramedics were unregistered (unqualified?). With about 20,000 clinics recorded, the numbers employed would imply that one doctor operated more than one clinic. The doctor : nurse ratio of more than 5 : 1 shows that the staff mix is highly skewed.

TABLE 8

EMPLOYMENT IN PRIVATE FACILITIES: 1987

Category	Number Employed	Percent Unregistered
Doctor	15,632	25
Nurse	3,094	70
Paramedic	22,167	73
Total	40,893	54

In hospitals there was only one registered nurse for 16 beds and one paramedic for 24 beds. The registered doctors to bed ratio was very high 1:6, implying that costs of medical services provided was unnecessarily high. Moreover, since doctors refuse to perform the work done by nurses and paramedics, these services are bound to be under-provided.

2.2 Improvements and Modalities

The health care services require a number of improvements the most important of which are related to management and institutional changes. A number of management problems originate with general regulations. For instance, the delegation of financial and personnel powers would require either special exemptions or changes in overall government regulation. A recent study [Abt 1993] concluded that this could best be achieved for hospitals by converting them into autonomous bodies with an independent Board of Governors and full autonomy over personnel and finances, and that management of lower levels of facilities should be decentralised and linked to higher levels of user charges.

A second area of concern is planning for health care services. Current practice does not use any form of analytical methods either for projections or the analysis of alternatives. Instead decisions are based on opinion. In addition decision making is highly centralised. To improve the situation some decentralisation must take place. This must also be accompanied by decentralising financial and personnel powers. However, before such action is taken a detailed study should be undertaken to identify the modalities which can be used to bring about the changes needed.

A third area of concern is the remuneration structure. While private sector remunerations will continue to outstrip those provided in the public sector, the existing remuneration levels within government itself are inequitous and full of anomalies. For instance, the facilities and back-up provided to doctors with similar experience in the public sector hospitals are even lower than those in the medical services of the armed forces. Nurses in government are treated as

menials, whereas in the defence services they are commissioned officers (even though intake qualifications are the same). As a first step, therefore, government needs to reconsider the remunerations structure and have a single policy across all services/branches of government. This should then be followed by higher remunerations linked to user charges for specialist services.

The quality of services provided by the private sector need to be monitored and controlled. This could best be undertaken by the compulsory registration of all facilities with the Pakistan Medical and Dental Council. The PMDC should be empowered to penalise and strike names off the register for gross negligence or continued violation of registration conditionalities.

CHAPTER THREE

AFFORDABILITY AND WILLINGNESS TO PAY

The introduction of user charges immediately raises the question of affordability and its corollary willingness to pay. It is generally accepted that the willingness to pay for any commodity or service is determined by the utility of this to the consumer. It has been argued that households, irrespective of their position in the framework of society, would be willing to pay for curative health care as without this in an emergency the cost to the family would be substantial, particularly in the case of the breadwinner, and that this would not be constrained by the affordable limits. However, if the user charge is greater than the affordability level of any household, then equity is said to have been violated. On the other hand, a user charge at the maximum level of the willingness to pay places a considerable stress on the household in adjusting the basket of expenditure to cater for the specific service.

3.1 Existing Levels of Expenditure

The level of expenditure on health by households in different income categories has been obtained from the latest published Household Income and Expenditure Survey, which is for the fiscal year 1987-88 [Pakistan 1990]. This is presented in Table 9.

The Table shows that the share of expenditure on health ranges from a high of 2.8% of total expenditure for the poorest segment of society in the urban areas (3.6% in rural areas) to a low of 1.8% for those with incomes of over Rs. 4,500 per month in the urban areas (3.2% in the rural areas). These low shares in the total expenditure basket suggest that a large number of

TABLE 9
HOUSEHOLD MONTHLY EXPENDITURE ON
HEALTH IN PAKISTAN 1987-88
[All values in Rupees per month]

Income Group	Total	<u>U R B A N</u>		<u>R U R A L</u>		
		Health	% of Total	Total	Health	% of Total
UPTO 600	636	17.84	2.8%	563	20.13	3.6%
601-700	755	22.01	2.9%	735	24.07	3.3%
701-800	792	27.41	3.5%	818	25.96	3.2%
801-1000	980	23.73	2.4%	963	25.70	2.7%
1001-1500	1324	36.07	2.7%	1297	36.42	2.8%
1501-2000	1784	41.94	2.4%	1742	42.95	2.5%
2001-2500	2232	60.71	2.7%	2159	59.01	2.7%
2501-3000	2699	60.86	2.3%	2555	74.65	2.9%
3001-3500	3082	70.23	2.3%	3030	103.61	3.4%
3501-4000	3573	100.07	2.8%	3455	94.70	2.7%
4001-4500	4055	86.67	2.1%	3716	91.50	2.5%
4501-ABOVE	6768	121.91	1.8%	5648	180.54	3.2%

the households do not use health facilities unless the need is of a paramount nature, major illness only.

3.2 Affordability

We have measured affordability as that level of surplus available to the family after meeting their existing non-food expenses (including savings, if any) and the level of food expenses needed to meet minimum nutritional needs. This minimum nutritional expense, defined as the poverty line, was estimated for 1984-85 to be Rs 215 per person in the urban areas and Rs. 147 per person in the rural areas [Ercelawn 1992].

Thus affordability is computed by

$$A_i = \frac{Y_i - (E_s \cdot N_i) - E_{ni}}{Y_i}$$

where;

A_i = Affordability of an average household in the i th income group

Y_i = Average Household Income of the i th income group

E_s = Per Capita subsistence expenditure on food

N_i = Average household size in the i th income group

E_{ni} = Average Household Non-Food Expenditure of the i th income group

Using the information on household income and the composition of expenditure available to Erce lawn, we have computed the level of affordability for each household in different income groups [Pakistan 1987]. This is shown in Table 10.

The Table shows that in 1984-85, households earning upto Rs. 3,500 per month in the urban areas and Rs. 2,000 per month in the rural areas would have required a subsidy to meet basic nutritional needs and their existing expenditure on non-food items. These estimates of affordability reflect only the total amount of money which may be saved if all households were to consume food only sufficient to meet basic intake at the poverty level. This, however, is fallacious and represents only the extreme upper limit for households for all commodities and services combined. A more detailed and recent estimate of poverty needs to be undertaken to establish current day levels and also to quantify the actual affordability for health services. Moreover, while these figures tend to show some reallocable surplus, the affordability estimates need to be studied in conjunction with data on morbidity. For this latter a detailed health status and morbidity survey of households need to be undertaken so that endemic and epidemic rates may be established for various diseases.

3.3 Willingness to Pay

Estimates of willingness to pay have been derived from a small survey of private sector health institutions operating in the low income areas of urban Pakistan. The principal objective of the survey was to estimate the level of user charges by different types and levels of medical institutions. As a corollary the fees charged by these institutions would implicitly indicate the level of willingness to pay. Unfortunately, the survey was restricted to the supply side and not

TABLE 10

ESTIMATED AFFORDABILITY 1984-85

[All values in Rupees per month]

Income Group	Average Income	Average Total	Expenditure Non-Food	Minimum Subsistence Level	Affordability
<u>URBAN AREAS</u>					
Upto 600	472	559	266	913	-441
601-700	663	690	328	1119	-456
701-800	764	802	363	1268	-504
801-1000	924	971	470	1477	-553
1001-1500	1257	1259	619	1784	-527
1501-2000	1754	1731	887	2276	-522
2001-2500	2254	2165	1120	2630	-376
2501-3000	2756	2606	1419	3001	-245
3001-3500	3272	3099	1738	3381	-109
3501-4000	3770	3542	2038	3668	102
4001-4500	4271	3849	2207	3871	400
4501-5000	4783	4385	2680	4294	489
5001-8000	6121	5332	3379	4993	1128
8001-10000	9007	7450	5228	6843	2164
10001-15000	11980	10167	7181	8796	3184
15001-20000	17222	11054	8043	9658	7564
20001-25000	22193	16726	12612	14226	7967
<u>RURAL AREAS</u>					
Upto 600	463	566	252	749	-286
601-700	656	700	310	911	-255
701-800	754	809	363	1057	-303
801-1000	903	927	416	1130	-227
1001-1500	1236	1236	560	1398	-163
1501-2000	1721	1639	766	1728	-7
2001-2500	2221	2053	976	1979	242
2501-3000	2715	2472	1218	2278	436
3001-3500	3222	2837	1446	2544	678
3501-4000	3745	3297	1785	2937	807
4001-4500	4215	3471	1906	3199	1016
4501-5000	4730	4366	2625	3757	973
5001-8000	6131	4665	2928	4060	2071
8001-10000	8748	6995	4731	5863	2886
10001-15000	12200	7511	4949	6081	6119
15001-20000	16996	10244	7357	8489	8507
20001-25000	23564	16230	12851	13983	9581

the demand. Therefore, it was not possible to link the income levels of households to these user charges.

Given the premium for a better quality of health care, it is argued that the willingness to pay would be commensurate to the quality of the service and in this instance also to the urgency of the service needed. Given the exigency of the treatment required most families are willing to meet the costs of medical treatment even at the cost of borrowing to save a life. Thus it may be assumed that the willingness to pay is correlated to both the need to save life and also to the quality of service provided.

CHAPTER FOUR

SURVEY OF PRIVATE SECTOR HEALTH FACILITIES

4.1 Objectives, Scope, Tools

Information on cost recovery by the private sector health facilities is not readily available from any source. To be able to arrive at some estimate a small case-study oriented survey of these facilities was conducted in some of the low income areas of Karachi and Lahore. While the principal objective was to determine the level of cost recovery in these facilities, a secondary objective was to determine any changes in the levels of cost recovery by type of facility and by type of management. Thus the sample was drawn from both the for-profit and non-profit facilities. The data was collected by the authors themselves on a questionnaire designed to collect information on the basic information needed and also on other variables such as employment, charge rates and utilisation rates.

The total sample size was 25 units of which 1 was rejected as the data provided was incomplete. A total of 6 units of some 24 approached in Lahore responded to the survey. In Karachi we requested about 50 units for information, but only 23 responded of which 8 were hospitals, 6 maternity and child health clinics and 9 GP clinics. In each of these categories only 2 were operated for non-profit. In interpreting results we would advise caution. The survey was not meant to be exhaustive nor was it meant to be extensive. It was designed to provide an initial insight into the operations of the private sector health care facilities. We advise an in-depth survey of these and of government facilities for developing plans for changes in the future.

4.2 Profile of Services

Table 11 shows the staffing per bed for the hospitals and MCH clinics surveyed and the availability of staff per patient in the GP clinics. It would appear that there is a substitution between doctors and paramedics takes place in the "for profit" and "non-profit" organisations. For instance, in the hospitals working for profit the minimum number of doctors per bed was reported to be 0.2 with no paramedics. However, in the non-profit minima case the number of doctors was reported to be 0.1 per bed and these were augmented by 0.11 nurses and 0.14 paramedics per bed. This is only reflective of the pure profit driven approach to health care by some of the doctors. At the other end of the scale some of the GP clinics which have a couple of beds which are used for emergency treatment of patients retained overnight or for a few days of emergency care have both nurses and paramedics available round the clock. It is these variations of quality in private health care that need to be studied in depth for a more efficient and effective private health care intervention policy to be designed.

4.3 Fees and Other Revenues

The survey of medical facilities conducted in Karachi and Lahore showed that the average fee charged for the various services had a wide range. Table 12 shows the level of fees charged by the different types of institutions operating in the low income areas of urban Pakistan. OPD charges across all different types range from a minimum of Rs. 2 for the initial visit to a non-profit GP's clinic to a maximum of Rs. 50 to a for-profit MCH clinic. The bed charges per patient day range from a minimum of Rs. 15 in a non-profit hospital general ward to a maximum of Rs. 220 in a for-profit hospital general ward. Interestingly, the Table tends to imply that there is an element of cross subsidisation from the private patients which is used to

TABLE 11
STAFF AND BEDS OF SURVEY HEALTH CARE FACILITIES

		Doctors	Nurses	Parameds
<u>Hospital'</u>				
Minimum	For-Profit	0.20	0.00	0.00
	Non-Profit	0.10	0.11	0.14
Maximum	For-Profit	1.00	0.57	0.67
	Non-Profit	0.20	0.26	0.20
<u>MCH Clinic'</u>				
Minimum	For-Profit	0.10	0.15	0.20
	Non-Profit	0.06	0.11	0.18
Maximum	For-Profit	0.50	1.00	0.50
	Non-Profit	0.18	0.20	0.28
<u>Clinics''</u>				
Minimum	For-Profit	0.01	0.00	0.00
	Non-Profit	0.02	0.00	0.00
Maximum	For-Profit	0.05	0.02	0.09
	Non-Profit	0.03	0.06	0.06

' Per Bed.

'' Per Patient.

TABLE 12
FEE STRUCTURE OF HEALTH FACILITIES IN
THE LOW INCOME URBAN AREAS

(Rupees)

		<u>PER PATIENT DAY</u>		<u>PER VISIT</u>		<u>PER USE</u>	
		<u>Bed</u>	<u>Private Room</u>	<u>OPD Fees</u>	<u>Consultant Visit Fee</u>	<u>Operation Theatre</u>	<u>Child Delivery</u>
<u>HOSPITAL</u>							
Average	For-Profit	95	213	21	112	2900	1667
	Non-Profit	45	163	6	0	1075	350
Minimum	For-Profit	50	75	15	20	800	300
	Non-Profit	15	125	2	0	150	200
Maximum	For-Profit	220	625	35	250	4000	3500
	Non-Profit	75	200	10	0	2000	500
<u>MCH CLINIC</u>							
Average	For-Profit	105	183	33	107	'	1750
	Non-Profit	25	'	13	10	2650	625
Minimum	For-Profit	50	75	10	20	'	500
	Non-Profit	25	'	5	0	800	450
Maximum	For-Profit	150	300	50	200	'	3000
	Non-Profit	25	'	25	20	4500	800
<u>CLINICS</u>							
Average	For-Profit			16			
	Non-Profit			4			
Minimum	For-Profit			8			
	Non-Profit			2			
Maximum	For-Profit			20			
	Non-Profit			5			

' Only 1 case responded, therefore, excluded from this table.

provide some free service to patients and waive fees and charges in charity cases, except for OPD fees. In discussions with owners/managers this was confirmed. They estimate that they provide this service to anywhere between 10% to 50% of cases, depending on their sources of funding.

4.4 Components of Cost

The survey was also used to collect information on the cost structure of providing health care by the private sector in the lower income areas of the cities of Karachi and Lahore. This is shown in Table 13. Only the non-profit organisations owned their own buildings. Most of the for-profit facilities were located in rented premises (some did not provide this information). The share of medical supplies ranged from around 40% for the GP clinics to around 18% for the hospitals and MCH clinics. While the salary costs accounted for the bulk of expenditure, the share of medical supplies such as medicine etc. accounted for 20 to 30 percent of the total cost in the case of hospitals and MCH clinics.

TABLE 13
AVERAGE COST STRUCTURE OF SURVEY HEALTH CARE FACILITIES

		<i>(Percent)</i>					
		Salaries			Rent	Medical Supplies	
		Medical	Paramed	Others		Medical	Others
Hospital	For-Profit	36.2	17.2	6.2	7.7	28.5	4.2
	Non-Profit	22.4	30.1	5.0	0.0	22.8	19.7
MCH Clinic	For-Profit	22.1	42.2	8.8	5.7	20.1	1.1
Clinic	For-Profit	11.6	24.6	1.6	11.5	43.8	6.9
	Non-Profit	22.3	18.6	2.0	2.1	52.1	2.9

4.5 Implications for Cost Recovery

Information on total income was computed from the data provided on fees and numbers of patients treated. We feel, however, that the data on numbers treated is somewhat understated given the visual signs of utilisation on the days we visited the facilities. The results of the survey (Table 14) shows that even in the non-profit based institutions the average level of cost recovery was higher than the average costs incurred. However, sources of funding for these organisations was not given in all but one instance, the facilities operated by the Family Welfare Association. This latter is operated through donations from a large permanent body of donors which includes government, foreign agencies and local businesses.

TABLE 14
AVERAGE COST RECOVERY OF SURVEY HEALTH CARE FACILITIES

		Expenses	Income	Income as % of Cost
Hospital'	For-Profit	60902	98190	161
	Non-Profit	23765	26488	111
MCH Clinic'	For-Profit	42388	110275	260
	Non-Profit	46050	45228	98
Clinic''	For-Profit	2230	5658	254
	Non-Profit	4825	1460	30

_____ Rupees per bed per annum
 '' Rupees per patient annum

The survey shows that there is a possibility for full cost recovery of hospital care even in the low income areas. The survey also shows that OPD care provided by the non-profit GP clinics are subsidised substantially, and that Non-profit MCH clinics operate on the margin. Thus, the public sector hospitals should be able to achieve full cost recovery also subject to the condition that they provide a comparable level of service. In addition, the out-patients facilities in the public sector health care institutions should continue to be subsidised as is the case today.

CHAPTER FIVE

COST RECOVERY STRATEGY AND RECOMMENDATIONS

The analysis of affordability and willingness to pay earlier indicated that there was a considerable gap between these and the user charges levied in the public health care system in Pakistan. This perception has been more than justified by the survey of a very small case study sample of private health care facilities in the low income localities of the major urban areas of Pakistan (Karachi and Lahore). Therefore, the case for increasing user charges in public care facilities has, we feel, been established. The questions that arise, however, are by how much, should this be uniform, and should this be as a direct recovery or be more insidious in the form of a hidden tax? These questions are addressed in the following sections of this Chapter.

5.1 Level

In Chapter One, our analysis of public sector cost recovery shows that the extent of recovery is very low in Pakistan 3.5% of total health care expenditure or expressed alternatively 5.4% of the expenditure on public hospitals. On the other hand, private facilities operated by charities in the low income areas, which also treated patients for free, were able to recover as little as 70% of costs. While the transition to user charges of this level will take time, we would advise that as an immediate step, therefore, governments in Pakistan should raise recovery rates to one-quarter that of the minimum cost recovery rate in the charitable hospitals. Thus the recovery rates need to be enhanced by a factor of five times to 17.5% of expenditure. This should be increased by 10 percent each year thereafter until it reaches 70% for the primary health care units (BHUs in the rural areas and dispensaries in the urban areas) and full cost recovery in the teaching and other specialist hospitals. This latter would, however, have

to include a provision for cross-subsiding the near-poverty line cases. These latter could be defined as those where the household is dependant on Zakat.

From the analysis of the possible surplus, it would appear that rural households would be able to afford a higher fee than their urban counterparts, perhaps as the result of lower food prices. However, in the initial stages there should be no differential in the user charges from the two locations. If results of a further and more focused affordability study establishes this differential then this policy should be reversed.

5.2 Other Methods of Bridging the Gap

To overcome this massive shortfall, which can only increase with time, the government should consider innovative mechanisms of inducting the private sector and the local governments into expanding their role. For the latter, however, the question of resource generation is of paramount importance. There are two ways in which this can be achieved. The first, is by increasing yield from existing sources through improvements in tax administration. The second, is by broadening the tax base. Since, higher levels of government already take away the more buoyant and elastic sources which may be tapped, local governments are left with a very narrow tax base. This, in most instances are the levy of a special surcharge for health, such as contributions by employers in the urban areas to social security. A similar charge should also be levied in the rural areas, where the land-owning families could contribute for the welfare of their employees. This would to a large extent introduce some equity to the financing of health services. This, however, needs to be examined in depth. There is also a

need to empower local governments with full tax raising authority. This should be done at the earliest.

Following the results of the study on improving the resources for health at the local government level, we would recommend that initially only the large urban areas, say with a population base of 750,000 or more, be required to take on full responsibility for primary health care.

As the private sector is making considerable inroads into the delivery of health services to households in the lower end of the income range, government should encourage this in a number of ways. The first could be a tax holiday for investment in new facilities or by providing access to land at full market rates coupled to a loan for construction and purchase of equipment at a subsidised lending rate. This should however be restricted to only registered NGOs, Trusts and Foundations with a track record of operating at least four or more health facilities. The second could be by broadening the scope of support through the Health Foundations, which are yet to start operations in the provinces.

The third could be by encouraging the private sector into taking over the existing public health care facilities, while retaining title, thus relieving the government of a considerable recurring expenditure liability which could be used more productively in improving primary health care. This should be the prime responsibility of government. Thus there could be a clear demarcation of responsibilities, the public sector responsible for primary health care and the private sector responsible for curative health care. Thus this could be a policy of withdrawal

from the latter stages of health care leaving this entirely in the hands of the private sector. This could, however, be supplemented by a system of grants for the poorer segments of society.

5.3 Institutional Changes

Even before any changes may be brought into existence the current policy of rapid expansion in physical facilities would need to be rolled back and replaced with a more efficient system as suggested by the SAPP Mission [World Bank 1993b]. This can only be designed after a more detailed study of the system as it exists.

5.4 Methods of and Rates for Cost Recovery

As stated earlier we suggest that in the short run the methods of cost recovery should be direct in the form of an increase in fees such that cost recovery rates follow the following

schedule:

	<u>Hospitals</u>	<u>Others</u>
Year 1	17.5%	17.5%
Year 2	27.5%	27.5%
Year 3	37.5%	37.5%
Year 4	47.5%	47.5%
Year 5	57.5%	57.5%
Year 6	67.5%	65.0%
Year 7	77.5%	70.0%
Year 8	87.5%	70.0%
Year 9	95.0%	70.0%
Year 10	100.0%	70.0%

This should be accompanied by a detailed affordability estimation for establishing locational differentials.

An alternate mechanism for subsequent consideration is increasing the role of the private sector and local government agencies. The latter after resources are secured for this additional responsibility through the devolution of taxation powers.

The private sector role could be enhanced in a number of ways, but needs to be studied in depth before adopting any of the approaches suggested.

5.5 Estimated Revenue from Strategy

Based on the estimates of recovery and expenditure shown in Table 7, we have estimated that by 1996 (shown as Year 1 in Table 15), which is the first year in which our suggestions could realistically be implemented, the public sector health care costs would have risen to Rs.9.9 billion. Thus revenues are estimated to be Rs. 1.7 billion assuming the implementation of the 17.5% recovery rate in place. The year to year increases over the next ten years has also been included in the estimates presented in Table 15.

TABLE 15
ESTIMATED PUBLIC EXPENDITURE AND REVENUE
[All values in Million Rupees]

Years	Expenditure	Revenue
1	9992	1749
2	11820	3250
3	13983	5244
4	16542	7857
5	19569	11252
6	23150	15418
7	27387	20485
8	32398	26308
9	38327	32962
10	45341	40444

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