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Health Care Financing Study: Phase I

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EXECUTIVE SUMMARY

In the early months of 1990, the Government of Pakistan (GOP) requested USAID assistance for a study on key health financing issues and policy options related to the current health care sector in Pakistan, with a focus on its future directions. In May and June of the same year, a small team of 4 Americans and 4 Pakistani undertook a first phase of a two part study. This first phase was to identify key policy issues, and based on recommendations, design a second component of the study that would focus on specific guidance for policy development and implementation. Observations, findings, and recommendations for additional work from this initial part of the study are presented here, and in greater detail in the full report that follows.

Pakistan and Health Care: Emergent Issues

Pakistan is a diverse country, with a rich tradition and a promising economic future. Its diversity is evident geographically, and its in tradition of cultural pluralism. Economically, Pakistan is also diverse, marked by both poverty and maldistribution across provinces, but also vibrant growth in the nation overall. Several indicators point to robust economic activity, such as average annual growth rate of 7% of GDP throughout the 1980s. Its labor force (wage-based population) has expanded by over 50% during this period, and can be expected to increase again as much by the year 2000. This period of marked growth has paralleled the transition over the last decade from a controlled economy to an increasing reliance on market forces. For example, over 72% of total industrial investment since 1983 has been generated by the private sector.

This general cultural and economic landscape has important implications for Pakistan's health sector, present and future. Like the country itself, the health sector has increasingly evolved from public-sector based, to a diverse and mixed system of care, with public, private, and compulsory workplace sectors. Both supply and demand for health and medical care have also grown, but often in unrestrained and inequitable ways. This growth has increasingly placed pressures on public sector budgets, with few broad-based controls to stem future growth.

In the early years of the nation, public sector policies stressed investments targeted at the provision of equity. Impressive and real gains were achieved on the supply side, in terms of physical infrastructure and production of medical cadre, such as physicians. Operating costs for these public sector facilities and salaries have caused the Government's recurrent budget, however, to double from 1983 to 1988, and are expected to double again by the early 1990s. Concurrently, as income and national wealth have grown, demand for care has also grown, and more than proportionately -- a trend typical

to most countries. The push for a greater access to a wider array of services also has led to increasing expenditures and accompanying pressures on the public budget.

Short of structural change, other forces in place promise only to make these pressures grow worse over the next few years. These forces include:

- o an increasingly urbanized population;
- o allocation decisions that have tended to favor the development of the curative model of care over prevention, and urban areas over rural ones;
- o policies which have discouraged local management and self-sufficiency in public facilities, yet have left untouched a fragmented and uneven non-government sector; and,
- o the epidemiologic and demographic transition. There have been remarkable success rates with national immunization and rehydration campaigns over the last decade, aimed at those under 4 years of age. These efforts, coupled with socio-economic and medical advances, are changing life expectancy patterns.

The population is aging and disease patterns have begun to shift from infectious diseases to problems related to chronic and debilitating care.

These problems and diseases typically have associated treatment costs, and the high-technology, curative care demanded by these groups can be an enormous drain on national health budgets. For the most part, this demand will be from the urban, wage-based population, with easy access to expensive, hospital-based care. Together, these factors point to potentially explosive demands on medical services and public budgets over the next few years. Under such a scenario, basic and preventive services for those under the age of 15, the poor, and the generally underserved can be easily crowded-out.

Findings and Observations

A number of alternative policy options for financing health services were identified in extensive discussions and in review and analysis of other efforts to date, that both point to development of a longer-term strategy and allow for several immediate start-up efforts that can serve as catalysts for systemic change. Findings and observations point to a number of broad directions that would encourage the Government to re-define its role.

Generally, the public sector is spending a disproportionate share of its budget on urban/curative care that benefits too much of the wage-based population groups. It is also spending a disproportionate

and increasing share on salaries and maintenance, rather than services. Public resources can be more appropriately allocated for prevention, and payment schemes for curative services to the poor and underserved, such as those in the rural areas. In addition, the public sector must better manage and regulate the entire health sector -- private, non-profit, and public -- in several areas: consumer education, quality and standards setting, and financial stability. In addition, it must foster the development of choice and flexibility in coverage of care and systems of care for the wage-based population.

Seven more specific categories of consensus findings and observations were also developed, and are briefly presented, in no particular order of preference.

Cost Recovery and User Fees. Selected policies related to user fees and cost recovery should be introduced into the Government-based part of the delivery system, particularly in three areas:

- o Decreasing the Direct Delivery of Services Burden -- such as charging directly for tests or services, contracting or "privatizing" selected services such as food, supplies, laundry, and diagnostic services; public sector physicians also might be encouraged to pursue private practices for negotiated rates in public facilities;
- o Encouraging More Appropriate Use of the Referral System of Care -- some system of graduated charges, if administered correctly, could provide choice between properly using the referral system free of charge versus bypassing it for some specified amount;
- o Exploring Approaches to More Cost-Effective Patterns of Prescription and Use of Pharmaceuticals. Private or non-profit, pay-as-you-go, pharmacies could be a preferable approach, and should be explored.

In general, cost recovery schemes can allow more participation and responsibility by the consumer in his/her own care. However, different approaches to cost recovery have administrative costs, and federal policymakers are not always willing to allow the provider or facility to retain receipts, discouraging collection. Thirdly, cost recovery approaches are more tenuous because they cannot always protect the poor.

Insurance/ESSI Schemes. Currently, the organized wage and income sector in Pakistan is characterized by a mixed delivery system approach to care. Industrial workers are covered under Employment Social Security Institute (ESSI) schemes. Certain employers -- public and private -- can opt-out and offer their own benefit plan or delivery system. The relative importance of each of these schemes,

however, varies. Insurance, for example, is currently a limited market. Two broad areas of policy development could be considered in the short-term:

- o Expanding Existing Schemes such as ESSI, and Developing Choice Across Schemes for Individual Employees. The ESSI ceiling should be lifted, and its percentage contributory rate should be changed to a flat rate. More important, though, may be the consideration that employers provide a participatory contributory scheme that, in turn, allows for several options, such as: (1) direct delivery system by employer (when available) (2) enrollment into an ESSI scheme, and (3) retained contributions by the employer and/or employee for health, to be used for purchase of an insurance benefit package;
- o Encouraging Deregulation and Expansion of the Private Insurance Market -- especially schemes and benefit packages that are structured with appropriate incentives for cost-effective care. Several initiatives could spur these activities, such as the pooling of insurance reserves across companies, development of re-insurance pools, development of basic codified benefit packages, and fostering of discrete markets to initially experiment with health insurance schemes (e.g., a package for inpatient and catastrophic care only).

Health insurance offers the potential for substantial improvements in equity and efficiency. For the short-term, the recent Government set-aside for development of health insurance schemes is a tangible opportunity to develop prototypes of choice, at least for banks and larger corporations, and to open the insurance market generally. The Government has announced that life insurance will be de-nationalized, but should consider other areas as well. Insurers often use health policies as a "loss leader" for life, fire and other types of packages. For the longer-term, the Government should develop a direct insurance scheme for the urban poor.

Fostering Privatization of Curative Care. Specialized curative care is pivotal in any system of medical care. However, it is less than clear whether the Government can or should continue to pay for all of it. Already, a full 60% of the Government's recurrent budget go to facilities at the upper-end of the curative care system, such as secondary and tertiary/teaching facilities.

For the short-term, a broad-based strategy concerning the encouragement of some level of self-sufficiency for a number of secondary/tertiary facilities should be developed. This could include an array of objectives, such as (1) Government-owned, but recurrent budgets mostly or completely dependent upon non-Government revenues; (2) autonomous from the Government, but dependent upon local or community affiliation or funding; (3) autonomous, and non-

profit, with or without organizational affiliation; and (4) owned and operated through a private, for-profit enterprise, either acquiring capital through stock or a private investment group.

Experiments which test new management structures can develop prototypes that demonstrate significant improvement in the efficiency of Government and non-Government institutions. A number of approaches and policies could be quickly instituted such as (1) introduction of greater or full autonomy over management and personnel policies; (2) a variety of private contracting and payment schemes among physicians, private-pay patients, and the hospital itself; (3) standardized cost accounting and clinical information systems, to better track and monitor truly cost-effective care.

Management and Regulation of the Health Sector. Both the public and the non-Government health sectors have achieved substantial growth over the last several years. But while the Government has implemented planning and monitoring apparatus for public sector-based delivery of care, the other sectors -- non-profit and private/for profit -- have been virtually left untouched. The private sector is already by far the largest provider of health services, accounting for about 60% of total expenditures.

As demand increases, unchecked growth poses substantial dangers in terms of consistent quality and reasonable costs. Policies need to be refocused to provide leadership and management more evenly across all providers of care, public and private; in the short term, there could be four areas of focus:

- o Consumer Protections. The Government to set up and empower public interest groups to monitor the health sector and provide the consumer both information before receiving care and recourse following poor care;
- o Standard Setting and Accreditation. Providers of care, both physicians and facilities, need to establish licensing and standards processes in areas such as sanitation, accommodation, equipment, staffing levels, and certification of auxiliary health personnel. They also need to monitor the actual quality of the care itself, e.g., were diagnostic activities appropriate?
- o Financial and Management Standards. As demand for insurance and pre-paid schemes increase, some monitoring and control over financial soundness and viability is necessary. Minimum standards of insurance packages can be developed to assure coverage even in instances of unexpected costs; similarly, organizations must manage their revenues and outlays prudently;
- o Review and Streamline Incentives for Private and Non-Profit

Sector Growth. There is some evidence that the tax code since the 1970s has removed the incentive for trusts and foundations to provide services in the areas of health and education. Other areas include unnecessary lags in equipment import, and problems with visa renewals for trained health professionals from other countries.

Management of the health sector is a strategy that must be implemented concurrent with privatization and non-Governmental growth. Importantly, the Federal and Provincial Governments must empower the legal and regulatory guidelines, but their direct role must be prudently restrained.

Financing Health Manpower -- Improving Physician Education. The current educational system has been plagued by a marked decline in achieving educational excellence evenly across medical schools. While physician supply and maldistribution issues often take precedent in policy deliberations, these may require longer-term policy approaches. At least two policy directions might be pursued immediately, aimed at improving the quality and stature of new students, and the quality of medical education itself, including:

- o Changes in Financing of Education -- including cutting outright the current budgetary subsidies to institutions used to finance most students' tuition costs. A similar level of resources could be routed through the students, through user charges and/or student loans. This could be a self-sufficient financing scheme over time. A number of other benefits would derive as well, such as greater commitment, an incentive to demand better education, and more timely completion. It also could provide leverage to the Government to channel graduates into particular directions consistent with social policy priorities (e.g., 2-5 years in rural areas), through a preferential write-off of loans;
- o Creation of More Independent Certification Process. While this cannot solely improve the quality of education, it can be a type of social technology-forcing mechanism to improve all aspects of the medical education process. The integrity of the examination system might be improved by contracting out the certification process to a private testing agency. Currently, procedures exist in the form of high school examinations administered by the Cambridge and London University Syndicates, and the ECFMG and VQE examination for physicians.

Rural Health. Despite historical inequities, much capital investment and new programs have been initiated to begin to address the substantial needs of underserved in rural areas. Unfortunately, most observers agree that the Government's Rural Health Network is not operating very effectively, with no apparent strategy to fix it.

Utilization of services and perceived quality are generally low. Physicians remain difficult to retain and recruit, drug supplies are erratic, and outreach is scant.

Alternatives in three areas could help reduce the Government's direct delivery role for curative care, move it toward encouraging privatization at the provider level, allowing it to reinvest its resources in services rather than bricks and mortar and salaries:

- o Encouraging NGOs to Assume Operation of Clusters of Rural Facilities. Delivery of personal medical services could be on a fee-for-service or preferred provider/capitated rate negotiated at the local level. Outreach and care for the needy could remain the responsibility of the Government, again through a direct reimbursement scheme. It is less than clear, however, whether this model or any other physician-centered model will be effective in rural areas;
- o Extending the Zakat Fund. A promising component in developing a workable privatization policy is the Zakat fund, operating in the context of the Islamic precept, to reduce social disparities. Community-based committees identify the "truly needy" either in terms of income or needed care. Zakat has indicated a strong interest in allocating more of its resources to health care over the next few years. Secondly, the Government could match Zakat funding, by using Zakat to determine eligibility, then work directly with providers of care for payment of a basic package of services. This could effectively double the number of eligibles;
- o Developing a Rural Insurance Scheme. Methods of monetizing products of rural labor, and converting to a contributory scheme must be explored. Once that occurs, experimental or pilot schemes could be started in some of the larger villages, and eventually extended. The scheme would most probably be Government-based or backed, at least initially.

Government Employees: A Case Study. Government employees -- Federal, Provincial, Local -- comprise one of the largest organized wage and income groups in Pakistan. Their numbers are currently estimated at 1.5 to 2.0 million workers, and over 12 million including dependents and retirees. They enjoy a rich benefit package of services, and generally seek care directly from any Government-designated medical facility.

It is a diverse group, in terms of demographics and in terms of socio-economic strata. Because of its diversity, its sheer numbers, and the accessibility of its organization, it affords a unique opportunity to test and implement new approaches in health care financing. What might be instituted are pilot projects which move federal employees away from the current system into more choice and

flexibility across schemes. These choices could include ESSI, private insurance of some type (subject to minimum package standards) such as a Health Maintenance scheme, and the current system. Benefits could be monetized, and contributory schemes -- including both employer and employee contribution -- could be established. These contributions could be used to enroll employees in any of several schemes. More choice would also induce competition and contain costs.

Because current employees perceive medical benefits as an entitlement, pilot projects may have to begin with new employees only. For others, participation could be voluntary. Over time, employees may elect to move to a scheme that provides reimbursement for care rather than the direct delivery systems. For the upper ranks of civil servants, such as the Class I Officers, additional packages, such as catastrophic coverage could also be made available on a voluntary basis.

Recommendations

The findings and observations above point to a number of broad directions to refine and restructure health financing policies in Pakistan. There are no easy solutions, nor are there quick solutions that could be implemented without substantial impact on providers and citizenry. There are, however, a number of "points of entry" that can emerge from the broad consensus of observations and analysis. These more discrete areas can serve as catalysts, as initiators of larger behavioral or systemic change. This is also a preferred strategy because accomplishments may be difficult to achieve, and the required course of action may change as the process unfolds.

In making recommendations for Phase II, it is also important to consider to which areas USAID can contribute most effectively in terms of study and technical expertise, and which areas of reform are best implemented by the GOP. For these reasons, only a selected number of areas from the above categories need be pursued in Phase II. Generally, these categories include the following:

- o Privatization of Secondary and Tertiary Hospitals. This work would be multidisciplinary in scope, and include several tasks to help define a framework and issues to be resolved, to quickly move a number of very expensive institutions to self-sufficiency. This need not be a large number of institutions initially, and could be tied to individual hospital interests currently.
- o Developing and Extending Insurance Schemes. Too little is known in Pakistan about the actual cost of delivering a package of services and the risk thereof. Without knowledge of costs and without tying the amount of reimbursement to the prices charged for services -- and in turn relating those

prices to the actual cost of service provision -- any move toward insurance expansion will simply push money into an unrestrained supply system, and push prices up. A series of tasks should be aimed at estimating the revenues and costs of developing insurance schemes for discrete markets, to design benefit packages that are attractive to current consumer needs, and to structure payment incentives that will promote cost containment and quality. Secondly, a series of tasks should address methods of de-regulating the insurance market, and encouraging entry into this market, through risk-pooling, re-insurance schemes, and the like.

- o Developing A Rural Insurance Scheme. The problems confronting rural health are long-term, but a number of tasks should be started now. These include understanding better how private-based care, which provides most care in rural areas, works -- who is served, by whom, at what costs. Secondly, some analysis and recommendations should be developed on building a rural infrastructure to monetize the products of labor, and developing a contributory insurance scheme that can be put in place.
- o Developing an Insurance Scheme for Federal Government Employees. A series of tasks can re-think the current direct delivery scheme, and begin to design, cost-out, and develop alternatives for new employees and upper-income employees who have expressed an interest in coverage packages for expensive or catastrophic care. In particular, Federal employees appear a prime group from which to start a model Health Maintenance scheme. This could save the Government substantial sums of money; perhaps more important, it would serve as a model program for other employee groups.
- o Managing the Health Sector/Marketplace. This area must be pursued concurrent with any strategy that fosters the use of the private and non-Government sector. Regardless, it is a strategy long overdue and series of tasks and observational visits should be undertaken. The areas to be included would be quality assurance and standards setting, assuring financial stability in insurance and in schemes which tie finances and delivery together, and some initial work in assuring adequate provision of care for the poor. As the marketplace expands, the indigent must be protected.

In the initial stages of Phase II, a positive outcome for USAID would be to provide a strong sense of direction in national health care financing, reflecting the findings and discussions in this report. At the same time, the Government might begin to approach financing the health sector from a more global perspective. It might further provide the climate for increased private investment in the health sector, and promote pluralism generally. As a general rule,

as studies develop into implementation projects, they can be initiated in discrete areas or provinces on a small scale. If projects are successful, they can be evaluated for extension to other parts of the health sector.

For the longer term, the process of experimentation and testing, within a framework of general policy direction, might be institutionalized. This could be accomplished through either a public sector organizational focus, or through a private Pakistan-based foundation that would foster new and promising models of change. In fact, there would be sufficient tasks for both private and public organizations, and each could focus on their own segments of the health sector. Funding would be provided to applicants on a competitive basis for specific periods of time, to develop, test and evaluate alternative approaches to health service delivery systems. Other countries, such as the United States, have used these organizations to refine and develop innovations in health services delivery, and allow transitions to policy changes more easily and with minimal adverse consequences on affected groups.

I. BACKGROUND AND SCOPE OF STUDY

Earlier this year, the Government of Pakistan (GOP) requested USAID assistance for a study on key health financing issues and policy options related to the current health care sector in the country and its future directions. The GOP expressed particular interest in exploring methods to:

- o generate increased resources for health care delivery;
- o contain costs by improving efficiency in the sector;
- o increase the role of the private sector in secondary and tertiary care;
- o strengthen and expand the social security system; and,
- o develop some form of health insurance for the general public.

Given the scope and complexity of the study, USAID and the GOP agreed to have the study conducted in two phases:

- o Phase I: Design and Planning. To be carried out by small team of consultants to identify key policy issues to be addressed, define data collection needs, and prepare detailed terms of reference for the overall study and scopes of work for individual consultants.
- o Phase II: Data Collection, Analysis, and Report Writing. A team of U.S. and Pakistani consultants, working closely with GOP officials, to implement the study. It is anticipated that this will require data collection from both primary and secondary sources; analyses of these data; and preparation of a report which, based on this analysis, presents alternative policy options for financing health services, their resource implications, and guidance for their implementation.

This report, coupled with the scope of work, and other attachments, represents the final products of the first phase of this study.

Methods and Process

A number of key elements characterize the process and methods used to develop findings and recommendations for this phase. These include:

- o The broadly participatory nature of the study team. It was composed of 4 Americans and 4 Pakistani. The Americans represented backgrounds and expertise in health care financing, health policy analysis, economics, public health,

health systems, and health policy issues related to developing nations. The Pakistani represented similar backgrounds, but were also well-grounded in the workings and policies of the Pakistan health care sector, and team members represented federal policy, provincial policy (2 members), with 1 private consultant.

- o A review of all existing reports on research and analysis relating to the financing of health care services in Pakistan. It further included a review of documentation on the various institutions involved in health care financing.
- o A review of available economic, health budget and expenditure data for the federal and provincial governments. In addition, data across the entire health sector were collected. A set of data elements were identified prior to the trip, as well as a set of definition of terms (these are included as Attachment II) to use as a framework for data collection and analysis efforts.
- o Consultation and visits with a broad range of individuals and organizations involved in policy-related activities in the country (see Attachment III). Representatives from every sector and sphere were included, such as
 - key policymakers from the federal, provincial, and local levels of government;
 - all sectors -- government, non-profit, and private;
 - all levels of providers, such as physicians, hospital administrators, nurses, and paramedics; and,
 - organizations, such as foundations, specialty groups, corporations, autonomous bodies, and facilities at every level of care.

In addition, the team worked in close collaboration with designated representatives of the Ministry of Health and the Health and Nutrition section of the Planning Division of USAID.

Framework. The framework of analysis was straightforward: how can policies be developed and promoted to assure maximum efficiency and equity across Pakistan's citizenry. Closely related to these objectives were issues related to the appropriate role of the Government and other sectors in the allocation of resources and delivery of care.

In this context, costs and benefits of types of systems and services were examined. Particularly on the benefits side, it was important to distinguish between services that benefitted individuals

only, versus services that benefitted more or all of society. Generally, the latter types of services are most appropriate for the public sector; indeed, in a world of scarce resources, these services must take precedence in any public budget.

Organization of the Report

After a brief discussion of the issues facing Pakistan and its health sector in Section II, findings and recommendations are presented in Section III, with Section IV providing some concluding remarks. There are several attachments, including a detailed scope of work for Phase II of the study.

II. CONTEXT: PAKISTAN AND ITS HEALTH SECTOR

Pakistan is a country characterized by its diversity -- both geographically and culturally. Geographically, it ranges from the Himalayas in the north 1100 miles to the tropical areas along the Arabian Sea in the south. It's western province, Baluchistan, is a large sparsely populated desert area encompassing about 44% of the territory of Pakistan. Most of the midsection of the country is located in the valleys of the Indus River and tributaries which make this area one of the most fertile agriculture areas in the world. While most of the population lives in rural areas, the percentage of the population living in urban areas is increasing, rising from 25.4% in the 1972 census to 28.3% in the 1981 census (Pakistan Statistical Yearbook, 1989). According to some estimates it is now about one third urban (World Bank, 1988).

Pakistan is not uniform in its population distribution. In the nation's heartland agricultural area, the heavily populated province of Punjab, with 56% of the population, was 27.5% urban, while sparsely populated Baluchistan was only 15.6% urban and the North West Frontier Province (NWFP) was only 15.1% urban. Sindh is the most predominantly urban of the four provinces, 43.3%

Culturally, Pakistan has a rich history of peoples of many ethnic and national traditions, spanning over literally thousands of years. The social and cultural fabric is still today characterized by pluralism and individualism. In addition, its strong religious tradition has influenced strong threads of moralism in development of its policies and priorities.

Economically, it is a vibrant and maturing nation, though, still plagued by poverty. As of its fiscal year 1988 (beginning July 1), per capita income was only \$350. But this hides a number of underlying factors. First, just under half (43%) of Pakistan's population is under 15 years of age. Most under the age of 15 are not in the workforce which means that what is produced by those

working must be distributed to the non-working as well. Productivity, then, per person is higher than the simple per capita income figure would indicate.

Second, economic activity in Pakistan has been increasing at a rapid rate. Gross Domestic Product (GDP) in real terms rose at an average annual rate of 7.0% from FY 1980-81 to FY 1988-89 (Economic Survey, 1989-90). This high growth scenario is mitigated by the uneven distributional effects of GDP within the country -- Baluchistan and Thatta, for example, are at a disproportionate low end of income and equity participation, while the Punjab and Karachi are disproportionate toward the high end. A second mitigating factor is that population rose by an estimated 3.5% per year over this period, but per capita real income over this period was still rising at the rate of 2.7% per year, pointing to a developing and maturing economy. Other factors also point in this direction. For example, the number of motor vehicles registered more than doubled from 1979 to 1988 for an annual growth rate of 14.3% (Economic Survey, 1989). And, while all sectors of the economy are growing, the agricultural sector fell from 30.8% of GDP in FY 1980-81 to 26.0% of GDP in FY 1988-89, a classic sign of a nation's development. In the meantime, manufacturing rose from 15.1% of GDP to 17.2% of GDP and the residual (service and other) sector rose from 54.1% of GDP to 56.8% of GDP. Thus, it would appear that the economy is growing stronger in a sustained manner (see Pakistan Statistical Yearbook, 1989). At present 28 million people are considered to be in the labor force; this figure is expected to increase to 44 million by the year 2000.

This growth parallels the transition over the last decade from a controlled economy to an increasing reliance on market forces. In the Sixth Plan, the Government was successful in redirecting public development expenditures. Expansion of public enterprises has been contained in favor of private initiative during this period. The private sector's share in total fixed investment rose from 38% in FY1983 to 42% in FY1988, and in the manufacturing sector its share of investment increased from 51% to 83% over the same period. Over 72% of total industrial investment during this period was contributed by the private sector.

Health Sector: Emerging Issues

Pakistan's health sector, like the country itself, is composed of a diverse and mixed system of care, with public, non-profit, private, and compulsory workplace sectors. Over approximately the last thirty years, the health sector has evolved from one which was primarily public sector-based, to a more mixed approach.

In the early years of the nation, public sector policies stressed investments targeted at the provision of equity. Impressive and real gains were achieved on the supply side, in terms of physical infrastructure and production of medical cadre. Data on health care

services and facilities, such as hospital beds and health care personnel, indicate that the health sector in the past decade has grown even faster than the economy in general. Personnel indicators all point to vastly expanded resources per person in the health sector. For example, the population per physician ratio was cut by one quarter from 1979 to 1989 (3,598 to 2,790). The growth of supply in the Government sector, however, also has placed growing pressures on the public purse. Operating costs, for example, for public sector facilities and salaries have doubled from 1983 to 1988, and are expected to double again by the early 1990s.

Concurrently, as the supply of services has grown, so has the demand for care. The push for greater access to a wider array of services has further reinforced the spiral of increasing expenditures, and accompanying pressures on the public budget. This trend of growth in demand is not surprising in the context of Pakistan's maturing economy, and is typical across countries. A number of studies have shown that as countries have grown richer, they tend to increase the amount of resources they are willing to devote to health care more than proportionately (Schieber and Poullier, 1989). Household surveys of health expenditures in Pakistan indicate that in 1968, the percentage of income spent on health care was 1.9%; by 1987, this percentage had increased to 6% of income (Bashir and Siraj, no date).

Other forces with direct implications for public-based delivery and financing of the health care sector have exacerbated this demand and its impact on costs; these include:

- o an increasingly urbanized population, and the migration patterns that continue to swell urban populations;
- o allocation decisions that have tended to favor the development of the curative model of care over prevention, and urban areas over rural ones; most of the Government's costly, high technology care is urban-based;
- o over-centralized management policies in the Government-based delivery system that have discouraged the efficient delivery of care at the local level, contrasted with a relative absence of management and coordination across public, non-profit, and private segments of the health care sector at large; and,
- o the epidemiologic and demographic transition. The population is aging, and disease patterns have begun to shift from infectious diseases to problems related to chronic and debilitating care.

Improving health status has been marked, in part due to medical care inputs and in part due to socio-economic development factors.

At Independence, life expectancy was an average of 41 years. In 1985, it reached 54.4 years. As measured from birth through death, these gains are significant. A more instructive indicator for future social and economic policy, however, is to project life expectancy at different points of survival by age. This provides policymakers with a forward perspective on future budget liabilities: housing, jobs, education, pension benefits, etc. These projections, based on composite United Nations, World Bank, and Pakistan Census information, are illustrated here:

Year	1985		2000		2015	
Life Expectancy at birth	54.38		59.61		63.85	
	M	F	M	F	M	F
From age 0	54.2	54.7	58.7	60.6	62.3	65.4
From age 1	60.5	60.9	64.2	66.0	67.2	70.7
From age 4	61.6	63.9	64.2	66.8	66.2	69.6
From age 25	43.8	45.8	45.5	48.2	47.0	50.2

Given the remarkable success rates with national immunization and rehydration campaigns over the past decade for groups under 4 years of age, these numbers begin to take on even more significance. For instance, a girl surviving to age 4 in 1985 can expect an additional 63.7 years of life -- or a life expectancy from birth of 67.7 years.

The importance of this demographic and epidemiologic transition for the health care sector is in the likely disease patterns to be found in aging populations. Care for respiratory and cardiovascular problems, cancers, and chronic diseases typically have associated treatment costs, and the high-technology, curative care demanded by these groups can be an enormous drain on national health budgets. For the most part, this demand will be from the urban, wage-based population, with easy access to expensive, hospital-based care. Together, these factors point to potentially explosive demands on medical services and public budgets over the next few years. Under such a scenario, basic and preventive services for those under the age of 15 can be easily crowded-out.

The social and economic transition now underway in Pakistan will pose additional financing burdens on both the private and public sector health systems. Severity of patient-mix and intensity of care will both grow, increasing unit costs; demand will increase, at rates

faster than income growth. This double pressure on expenditures will create increasing resource constraints. While equity issues must not recede from the Government's agenda, issues of efficiency and effectiveness will gain importance in policy debate and deliberation.

With increased life expectancies, and successes in preventive care, health needs will change and grow. The challenge before policymakers is to consolidate these successes of the past, while re-focusing their energies and resources to accommodate future changes in the public interest across the entire health sector. Governments of all nations recognize the ongoing importance to provide appropriate leadership and stewardship in fostering the growth and modernization of their health sectors. Health is a national asset, and its benefits spill-over to all other areas of a nation's well-being.

III. FINDINGS AND OBSERVATIONS

A number of alternative policy options for financing health services were identified that both point to development of a longer-term strategy and allow for several immediate start-up efforts that can serve as catalysts for systemic change.

While there may be no easy solutions to the challenges ahead, the findings and observations below point to a number of broad directions that would encourage the Government to re-define its role. Currently, the public sector is:

- o spending a disproportionate share of its budget on urban/curative care that benefits too much of the wage-based population groups; and,
- o spending a disproportionate and increasing share on salaries and maintenance, rather than services.

Public resources can be more appropriately allocated for:

- o prevention, and payment schemes for curative services to the poor and underserved, such as those in the rural areas;
- o better management and regulation of the entire health sector - - private, non-profit, and public -- in several areas: consumer education, quality and standards setting, and financial stability;
- o development of choice and flexibility in coverage of care and systems of care for the wage-based population.

Below are presented several broad categories of findings and

observations. They are presented in no particular order of preference, and sections are presented as background for more specific scopes of work that follow this report.

1. Cost Recovery and User Fees

Discussions with policymakers and providers -- government, non-government and private -- indicated a broad agreement that selected policies related to user fees and cost recovery should be introduced into the Government health system. There were three areas of focus related to this category:

- o policies aimed at decreasing the direct delivery of services burden. These might include such services as food, supplies, laundry, and diagnostic services;
- o policies related to encouraging more appropriate use of the referral system of care, from basic health unit to the tertiary/teaching institution.
- o exploring approaches to more cost-effective patterns of prescription and use of pharmaceuticals.

Cost recovery/user fee schemes allow more participation and responsibility by the consumer in his/her own care. It would encourage more appropriate use of facilities and services, particularly at the secondary and tertiary level. It would also discourage overutilization and abuse related to the policy of supplying drugs free. Overall, it would permit reallocation of funds to more basic and urgent priorities, such as preventive care and primary care to the poor and underserved.

Free care for all was universally considered a difficult if not unachievable objective. The new National Health Policy does not address cost recovery directly, although the introduction of charges is implicit in the endorsement of "privatizing" parts of the public health system.

Decreasing the Burden of Government Delivery System Budget. Within the existing delivery system, there are a number of possibilities that government could pursue in addressing the broad issue of cost recovery or user fees. The Federal and Provincial governments could:

1. Charge directly for tests or services;
2. Contract for, or "privatize" in some fashion, selected services such as food, supplies, laundry, housekeeping, diagnostic tests, and X-rays;

3. Allow the physician the option to practice privately in the facility for part of the day, with revenues shared and rent paid. This would bring private-based revenues, and allow for greater utilization of equipment and services (e.g., for 16 hours per day rather than 8 hours). For example, a Government-based X-ray facility could be utilized by the public patients in the morning, and be utilized by private pay patients in the afternoon.¹ Better utilization of outpatient ("outdoor") facilities might also be retained.

Furthermore, there was broad agreement that charges for private wards are unrealistically low. Charges were Rs. 100/day at a secondary-level hospital in Lahore, compared with Rs. 370/day at a non-government missionary hospital which covered most of its costs, and with Rs. 500-1500 estimated for private clinics and hospitals. Public hospitals -- especially those at the upper-end of the curative system of care -- are utilized heavily by middle- and upper-income citizens. Increasing charges to those who could afford care could be used in conjunction with further subsidizing care for the poor, and to increase quality of care and amenities in the institution generally.

Encouraging Appropriate Use of the Referral System of Care. Discussions and research (see, for example, Bashir and Sirage, no date; World Bank, 1988) indicate the need to improve existing referral patterns of care. Facilities such as Basic Health Units (BHUs) and Rural Health Centers average utilization and occupancy rates of 40 to 60 percent, while tertiary facilities typically face occupancy rates of near 100%, and sometimes more. Estimates of 30 to 80% of these patients in teaching/tertiary facilities travel directly to these facilities to receive care for minor ailments that could be treated at a lower level facility. Some system of graduated charges or fee structure could be instituted to discourage bypassing more appropriate providers and levels of care. Patients could elect to face a fee structure or differential as the patient bypassed and moved "up" the referral system of care. At the same time, a patient could still receive free care, but be required to bring a specific referral recommendation to a secondary or tertiary care facility.

There is a danger that some illegal market for referral recommendations could develop. Administrative policies, through use of individual health card systems, or other safeguards, might be considered. In addition, to better assure equity and acceptability, any fee structure could be gradually phased-in over time, along with

¹ However, it should be noted that in countries where public physicians have been permitted private practices in government facilities (Syria, Egypt, Morocco, etc.) without being required to reimburse the government for space and services, the experience has been less than successful in achieving public policy objectives.

consumer education of these new rules and policies.

Pharmaceuticals. Pharmaceuticals are now the biggest non-personnel cost for government spending on health, estimated at 25-30% of costs. Drugs and medicines are given free, but discussions indicated great concern that this policy encourages overuse and misuse. If patients receive more drugs than needed, often there is an interest to trade or sell for other services. Poorly paid staff can use the drug availability as an opportunity to supplement income. Moreover, drugs are often not available and patients are already forced to purchase drugs in the private market. The availability of drugs was found to vary from place to place; over time the problem of "leakages" was reported as pervasive, ranging from "manageable" to "serious". Depending upon the use of the pharmaceutical budget by hospital managers, there is some evidence that those hospitalized have little choice than to pay for medicines.

Policymakers might consider maintaining an essential list of 80-100 drugs on the hospital premises, and providing them free of charge. These drugs could be purchased in bulk direct from manufacturers, through a competitive bid process. This would lower the per unit costs of these essential drugs, and assure supply for needed care. For other pharmaceuticals, a private or not-for-profit hospital-based pharmacy might be provided, and patients would pay out-of-pocket.

Discussion. In general, the different approaches to cost recovery have different administrative costs for organizing and managing services, and accounting for revenue. Policies that merely end specific services, for example, tend to avoid the administrative and political costs of imposing and collecting charges directly.

A fee structure might still be considered which recovers more of the costs of delivering care and strengthens the development of an appropriate referral system. Prices set initially need not be exactly "correct," only a reasonable first step in implementing a strategy of increasing cost recovery. In the longer-run, the schedule should reflect the real cost of delivering various services, yet the initiation of charges need not await such refinements. There seems to be good knowledge about charges in the private and non-profit sector for different services and procedures. NGO prices are readily available and might be a good guide.

To the extent charges for services are made, it is extremely important that the provider or facility retain and be allowed to reinvest receipts. Retaining receipt of revenues at the local level will minimize administrative burdens, and will foster concurrent improvements in quality and access to needed care. Federal and Provincial Budget allocations can be reduced accordingly. For example, a generalized moving revenue target for the facility with flexibility in recovering costs would allow the system to conduct a

variety of useful experiments in cost recovery, and encourage local decisionmaking and innovation tailored to individual needs.

The poor may need to be protected. Prices might be differentiated by location, with facilities serving poorer urban areas allowed to charge nothing or lower prices. The Zakat Fund, available to cover the indigent, is interested in allocating more resources on medical services. More systematic community mobilization of resources might also be possible. For example, the mayor of Lahore, has encouraged the trade community to raise money to supply drugs to dispensaries located in the poor section of town. In other instances in Pakistan, shortages of drugs have been ameliorated through local voluntary contributions. Communities in other countries (Senegal, Sudan, Indonesia, etc.) also have set up revolving drug funds, which cross-subsidize those unable to pay. The long-term success of these funds, however, has been mixed.

2. Insurance/ESSI Schemes

Insurance and related reimbursement schemes typically rely upon organized and periodic participation by those covered. Most frequently, though by no means always, this participation involves some monetary contribution, from wages or salary. Currently, the organized wage and income sector in Pakistan is characterized by a mixed delivery system approach to care. Government employees are covered under its Medical Attendance Rules, and are provided direct delivery facilities for much of the care. The industrial workers are covered under Employment Social Security Institute (ESSI) schemes. Most of the autonomous bodies (e.g. the Railroads) have their own delivery system for defined benefits. The corporate sector have either their registered health care providers selected from private/public sector facilities, or are covered through the private insurance market.

The relative importance of each of these schemes, however, varies. Discussions with leaders of several insurance companies and corporations indicated that health insurance is currently a market limited to corporate executives and non-residents, such as individuals affiliated with multinationals and foreign governments. There is some anecdotal evidence of a few restricted policies -- mostly accident-related -- in force through other companies.

Perhaps the most prominent health insurance scheme in Pakistan currently is operated by the ESSIs in the four provinces. Only Balochistan does not have an operational ESSI, but discussions indicated an initial start-up in the province, sometime in 1990. As already indicated, certain employers -- public and private -- can opt-out and offer their own benefit plan. For others, ESSIs cover all workers in establishments with ten or more employees. At present, eligibility is constrained to only employees below to

certain wage level -- Rs. 1500 per month.²

Several Government Commissions and documents have recently considered and/or recommended extending ESSI enrollment through removal of government employee exemption, lowering (from the current ten employee minimum) the size of establishments required to join, and raising the salary limit for eligible employees. In addition, moving from a 7% employer-only payroll contribution to a flat rate contribution would increase actuarial precision and encourage less evasive reporting of numbers of employees and their salary levels.

Government expressions of intent, in connection with the Seventh Five Year Plan, to extend health insurance in Pakistan suggest a vaguely articulated interest that is probably unbiased toward a variety of approaches -- including government, non-profit, private and private-multinational based. Similarly, the National Health Policy vaguely expresses encouragement for "development of HMOs and health insurance." More specifically, it describes a "mandatory and participatory" health insurance scheme for catastrophic illness -- run by insurance companies, with contributions from employers (85%) and employees (15%) -- pending new legislation. Most tangibly, Rs. 1

² The Social Security Scheme was introduced by the government in 1967 to provide benefits to both industrial workers, their families, and parents. The program is financed by an employer contribution (an employee contribution was eliminated in 1972), pegged at 7% of employee earnings. The ESSIs operate their own hospitals and dispensaries; physicians are hired on either full or part-time contracts. Referrals to specialists and tertiary facilities are also available.

Discussion with ESSI officials and data from others such as Stevens (1983) indicate ESSI enrollment levels have stagnated over the last decade. In 1980, about 455,000 workers were enrolled, while the number has only slightly increased to 510,000 in 1990. Punjab province accounted for most enrollees - 310,000 (versus 244,000 in 1980), and Sindh the second highest number 170,000 (versus 168,000 in 1980). NWFP has remained at the level of about 25,000, while Balochistan anticipates an initial enrollment of 6,000. With dependents, the total national coverage approximates 3 million.

Contributing factors to the stagnant enrollment numbers are probably several: a maturing yet largely unorganized workforce, a growing number of small independent firms, opting-out arrangements, and the earnings limit. In particular, this last factor of the earnings ceiling forces out an estimated 25,000 workers per year. It was also indicated that employers evade ESSI enrollment through various measures, in part due to a second-class level of quality care stigma of ESSI institutions.

billion have recently been budgeted for health insurance schemes.

Discussions with policymakers, corporate leaders, ESSI executives and insurance organizations and executives point to two areas of policy development in the short-term:

- o expanding existing schemes such as ESSI, and developing choice across schemes for individual employees, both to lower costs and encourage quality and innovation in benefits coverage;
- o encouraging deregulation and expansion of the private insurance market, especially schemes and benefit packages that are structured with appropriate incentives for cost-effective care.

Increasing Flexibility and Choice Across Existing Schemes.

Certainly, the Government's recommendations to extend ESSI schemes are laudable and implementable. There are at least two good reasons to support immediate extension. For one, increasing the enrollments would extend the risk pool and probably lower both administrative and per capita coverage costs. Lifting the wage ceiling would also increase the actuarial soundness of predicting enrollment, revenues, and expenditures. Secondly, ESSI schemes indicated a current delivery capacity that could absorb up to 50% increases in enrollments almost immediately. Even if delivery of care is not through an ESSI administered facility, it could be contracted out or negotiated with private or non-profit hospitals and clinics. (Conversely, it should be noted that ESSIs should not maintain excess capacity of service delivery, but consider its own contracting arrangements with fee-for-service providers -- even its own physicians -- and payers). One concern may be the lowering of the minimum size of a participating employer from 10 to 5 or 2 workers -- this could discourage the development of new, small firms and/or could discourage reported or real levels of employment. In addition, it would increase ESSI monitoring and compliance costs.

More important may be the consideration of alternatives to extending the ESSI schemes. Most basic would be the extension to new ESSI eligible employees the option of enrollment in ESSI or enrollment in insurance schemes. The insurance schemes could be several -- HMOs, traditional fee-for-service, or hospital-based, catastrophic. Minimum package standards would be developed under government legislation or auspices, and financial incentives for cost-effective care considered, such as deductibles, co-insurance payments, and capitated/negotiated rates.

The broadest and best alternative, though would have the Government foster and encourage choice of delivery systems and financing schemes. For example, the government could mandate employer participation and contribution for at least three basic options to be extended to each employee:

- o direct delivery system by employer (when available),
- o enrollment into an ESSI scheme,
- o retained contributions by the employer and/or employee for health, to be used for purchase of an insurance benefit package.

Again, the benefit package would be codified at basic level by the Government, and the extent and type of coverage would be a market-negotiated scheme.

The impact of choice would be two-fold: it would provide flexibility for individual and dependents according to health needs which could promote both greater equity and efficiency. Secondly, it would provide competition across payers and provider schemes, to both encourage high quality care and contain costs.

The benefits to each of these basic options are worth fostering under appropriate conditions. Employer-based and ESSI systems can provide an HMO-type arrangement where financing and clinical objectives merge to promote cost-effective care. Similarly, as Stevens (1983) notes, the ESSI program may be considered responsible for more insurance coverage than is reflected in the enrollment numbers. It is possible that for some of the establishments that opt out of ESSI, the independent provision of health care benefits to employees was encouraged.

Discussions indicated that for many of the corporate and ESSI schemes, both coverage and utilization were more limited for dependents than for granted employees, and some level of physician gatekeeping and monitoring encouraged utilization of pharmaceuticals and outpatient care to more expensive inpatient treatment and procedures. Most, if not all, of these schemes appear to be well-managed, and the trust funds across provinces to be solvent.

De-Regulation and Expansion of the Insurance Market. Health insurance prototypes and experiments need to be started generally in Pakistan, as soon as possible. Several obstacles to a developing health insurance market were identified in discussions:

- o lack of an organized and fully mature wage sector;
- o financial uncertainty;
- o inflationary tendencies, and concern over "moral hazard";
- o variations in quality of providers of care;
- o lack of normative benefit package guidelines;

- o a nationalized and over-regulated insurance market

Several possible solutions to some or all of these issues could be pursued, either with all or part of the Government's budgeted developmental fund. These include:

- o development of legislation and/or regulations that allow pooling of insurance reserves across companies. This would spread risks, and lower costs per capita for consumers;
- o development of re-insurance pools, perhaps backed by the Government, to protect or limit insurance company losses;
- o development of basic codified benefit packages, and training and education to promote skills in developing actuarial schemes. A codified package used by the Federal Government employees has been pointed out by Andreano (1988) as a good model.
- o fostering of discrete markets to initially experiment with health insurance schemes, such as a package for inpatient and catastrophic care only. If properly designed with some out-of-pocket costs, moral hazard issues could be reduced or minimized. Too often, inflationary pressures and moral hazard are products of comprehensive, no out-of-pocket cost schemes. These only encourage overutilization;
- o fostering of deregulation and de-nationalization of the insurance market. There are currently 51 insurance companies in Pakistan -- 41 local and 10 foreign companies -- and de-regulation is under consideration. In June 1990, for example, the Government announced that life insurance would be opened to the private sector. It must be kept in mind that insurers typically only offer a small number of health policies relative to overall portfolios, and often use it as a "loss leader" for life, fire and other types of packages. A competitive insurance market is one more way to promote quality and innovation while containing costs.

Discussion. As Andreano (1988) points out, health insurance offers the potential for substantial improvements in equity and efficiency. Equity relative to cost recovery/user charges is superior, because funding is spread between both the ill and healthy groups. Politically, this is prone to fewer complaints by the insured. By the same measure, the spreading of insurance collections over a broad insurance population probably allows for greater cost recovery than user fees.

Providing employee choice and flexibility with contributory schemes would be a good first step to understand to what extent demand exists

for health insurance. It could be initially started with large corporations and banks, and extended gradually over time. One suggestion was that the Government extend a one-time supplement to its employees' income to be used for insurance purchases, to spur closer shopping and choice across schemes.

Health insurance generally can also encourage competition between suppliers of care such as between hospitals and among physicians. Preferred provider or exclusive contract arrangements that negotiate guaranteed patient volume in exchange for price discounts could be encouraged. This could be especially advantageous to Pakistan in the context of its large and growing supply of physicians.

For the longer-term, the Government should also consider development of the direct insurance scheme for the urban poor with no coverage. (See the section on "rural issues" for a discussion of insurance schemes for the rural population.) One example could include basic coverage and charge reimbursement for any claims against eligible poor. Other more aggressive schemes are possible, too, such as a "preferred provider" network. Individual physicians could negotiate a fixed fee per person per month the same pre-defined package of services, both inpatient and outpatient. Eligible poor could register through local councils, mosques, or public bureaus such as car or drivers registration agencies. The registration scheme and methods for identifying eligibility for the truly needy would serve as the most formidable obstacles.

3. Fostering Privatization of Curative Care

Specialized curative care is pivotal in any national system of medical care, especially in a population that is undergoing an epidemiologic transition from infectious-based diseases to more chronic-based diseases, such as cardiovascular diseases, cancer, and the like. As Pakistan continues to mature from a demographic and epidemiologic standpoint, specialized care will grow in demand and cost. Already, though, the Government health budget is being severely strained by costs for such care in Government facilities. Bashir and Siraj (no date), for example, point out that a full 60% of the Government's recurrent budget in 1988 went to facilities at the upper-end of the curative care system, such as secondary and tertiary/teaching facilities. The great majority of this 60% allocation went to facilities in urban areas.

The National Health Policy emphasizes the expansion of private sector capacity to deliver high quality curative-based care. In addition, the Policy calls for privatizing some of the Government health system to avoid further crowding-out of resources for prevention and the underserved. In addition, its call for the creation of a Health Insurance industry could stimulate private sector growth.

Discussions and evidence to date strongly point to continued interest and growth in the private sector, both from the standpoint of nurturing new development and in privatizing existing Government facilities. For the short-term, a broad-based strategy concerning the encouragement of some level of self-sufficiency for a number of secondary/tertiary facilities should be developed. This could include an array of objectives, such as:

- o Government-owned, but recurrent budgets mostly or completely dependent upon non-Government revenues;
- o autonomous from the Government, but dependent upon local or community affiliation or funding;
- o autonomous, and non-profit, with or without organizational affiliation;
- o owned and operated through a private, for-profit enterprise, either acquiring capital through stock or a private investment group.

Depending upon the facility or institution, various arrangements could be considered. Discussions with at least one hospital indicated readiness to participate in such a project as a fully autonomous facility. The model for a District Hospital, on the other hand, could be the non-profit community hospital, with a local board and local management. The importance of at least experimenting with privatizing typical Government health institutions also go beyond immediate budgetary and allocation concerns. These institutions could be self-supporting as well as more efficient, thereby lowering costs of care for the population generally.

Experiments which test new management structures can develop prototypes that demonstrate significant improvement in the efficiency of Government and non-Government institutions. Discussions with policymakers, providers, and especially hospital administrators, indicate that the issues and problems are well-known, and a number of approaches and policies could be quickly instituted in selected secondary, tertiary and teaching facilities. Some of these approaches include:

- o introduction of greater or full autonomy over management and personnel policies, to better tailor institutional staffs to patient case-mix and services. Incentives could be created to promote better work habits and other efficiencies. The current constraints on hiring staff and the forced placement of doctors has been pointed out as an important issue. The National Health Policy also calls for autonomous management boards in teaching hospitals;

- o a variety of private contracting and payment schemes among physicians, private-pay patients, and the hospital itself. For example, Government physicians are not permitted currently to care for private patients in public facilities; under these demonstrations, physicians could, for example, bring their private patients to an institution for care. The physician fees from the patient could include a professional component, and a negotiated rate with the hospital. Diagnostic and laboratory services could be leased to private organizations or made available to private-pay patients, generating additional revenues and more efficient use of equipment and trained staff. More than one Government-institution indicated interest in experimenting with such schemes;

- o standardized cost accounting and clinical information systems. These systems are already in place in voluntary mission hospitals, and on a more elaborate basis in facilities such as the Aga Khan University hospital in Karachi. These systems need not be complex, as demonstrated in the United States. There are relatively few clinical elements on age, gender, diagnosis, and procedures routinely collected on every hospitalized patient using the International Classification schemes ("ICD-9" for diseases and "CPT-4" for physician procedures) for diagnosis and procedures. Correspondingly, a relatively straightforward cost accounting scheme universally adopted by all hospitals (at least ones participating in a demonstration) can be used to compare costs -- across institutions and over time. Coupled with clinical elements, Pakistan can begin to understand and evaluate what is truly cost-effective care.

Discussion. There could be a number of important issues to work through, including the legal framework, the status of doctors and other staff now serving as Government providers, and the division of responsibility over time for operating and capital expenditures. In addition, some initial framework could be necessary in such areas as payments for care for Government employees, and the financial arrangements between the physician and the hospital for its use for private practice. Additional revenues from private pay patients, however, could cross-subsidize care for the poor, and indeed, the Government could negotiate some percentage of care which is provided free to the poor and underserved.

Other countries have experimented and found an advantage in developing these types of approaches for expensive institutions. Both South Korea and Singapore have relevant experience in converting teaching hospitals to semi-autonomous and autonomous status.

Lastly, it may be useful to present one possible scenario to this privatization scheme:

- (1) Select the most prestigious teaching hospital in the country. Offer to the specialty providers (cardiology, radiology, etc.) a private practice option in return for their resignation from Government service. Yet, allow these specialists to maintain their affiliation with medical schools on an adjunct professional basis. Determine, from the Ministry of Health (MOH) perspective, the costs of operating these specialty units and bill these costs directly to the specialty practice, plus an increment to ensure that a certain portion of their practices will be for indigent patients. Then, allow the providers to structure their charges to patients, according to market forces;
- (2) "Grandfather-in" these specialists for, say, a ten-year period. During that period, the MOH will continue its capital responsibilities, especially medical equipment, though not at "zero price." For one, the specialists will be paying for space in the teaching hospital, as part of their costs. Secondly, the MOH will guarantee the duty-free importation of medical equipment, but the specialty practice will pay its base costs. During this ten-year period, new incoming specialists would have an increased cost burden to share with the MOH to allow more indigent care;
- (3) Along with fee-for-service from patients, allow the specialty groups to contract with insuring organizations;
- (4) Allow the specialty groups to contract out for laundry, lab, food, and other ancillary services to the hospital, including hospital management and administration, and the pharmacy services;
- (5) After a fixed period of time, the MOH can determine to either a) continue leasing the facility, b) sell the facility, or c) some combination of clinical services while maintaining responsibility for capital requirements (renovation, expansion, equipment, etc.).

Starting with one teaching hospital at the Federal level, a model could be established for management training and operations. As a management and operations cadre is established, other hospitals could be included. This process of privatization would also allow the MOH to set standards and regulation (accreditation standards) for the private sector (see next section).

4. Management and Regulation of the Health Sector

The health sector in Pakistan has achieved laudable gains in health and medical care over the last several years. In fact, the health and medical sector is currently characterized by explosive growth,

especially in the area of curative care. This has been true for both public and private sector, and true both in terms of facilities and resources generally.

Previous sections of this report have described the growth of public sector facilities, and the private sector facilities have grown very rapidly during the last decade as well. According to the World Bank (1988) and the Ministry of Planning and Development, almost 20,000 physicians existed in the private sector in 1983, and most of the public sector physicians can be expected to have private practices. There are an estimated 15,000 private hospitals, and 1,000 private clinics with an estimated 2,000 private beds being added each year. The private sector is already by far the largest provider of health services; about 60% of total expenditures on medical care go to private sector providers, while private-based payments to private providers amount to 55% of all expenditures.

While the Government has implemented planning and monitoring apparatus for public sector-based delivery of care, the other sectors -- non-profit and private/for profit -- have been virtually left untouched. Discussions with both public and private sector individuals indicate an emerging consensus that policies should be re-focused to provide leadership and management more evenly across all providers of care, public and private. There was strong agreement that the private sector is aggressively moving forward, but Government's ability to restrain and guide its growth is receding.

There is considerable merit in these observations. The free market works efficiently and to the advantage of everyone when full information is available to all participants. With medical care, the sudden and debilitating nature of illness, and the transfer of decisionmaking by the consumer to the physician make good information more problematic. Many countries, as a result, have developed monitoring and control mechanisms for private providers and facilities. In Pakistan, where much of the population is largely illiterate, the patient would seem to be at an even greater disadvantage.

Both the Seventh Year Plan and the National Health Policy call for the implementation of national and provincial standards of service delivery in the medical marketplace, both public and private. The medical marketplace in Pakistan can be characterized as open, but unorganized and drifting. As demand increases, unchecked growth poses substantial dangers in terms of consistent quality and reasonable costs. Some system of controls and must be put in place, over a period of time, to stabilize a promising evolution of the non-Government health sector.

Importantly, the Federal and Provincial governments need to empower the legal and regulatory guidelines, but its direct role must be prudently restrained. Direct regulation by the Government over all

sectors raises concerns, because the current regulator field staff is plagued by poor pay, often creating vulnerabilities toward private deals with those being regulated. This is borne out by the history of governmental attempts to regulate the quality of foodstuff and drugs being sold on the market, among other things. Instead, implementation, monitoring, and compliance should directly rest with non-governmental bodies.

There are four areas of focus that should be given attention in the short-run: consumer protections, standard setting and accreditation bodies, financial and management standards, and a re-examination of the organizational incentives currently in place.

Consumer Protections. Individual consumers of medical services need good information to choose appropriate providers, and some empowerment to report instances of substandard or overly costly care. Similarly, as insurance schemes are advanced, consumers will want to know which benefits are provided, and under what circumstances. One promising alternative suggested is for the Government to set up and empower public interest groups to monitor the health sector and provide the consumer both information before receiving care and recourse following poor care. The setting up of a consumer protection fund could be a politically popular initiative as well.

Standard Setting and Accreditation. New providers entering the marketplace, such as hospitals, do not always require initial licensure. Similarly, existing providers of care, both physicians and facilities, need to establish minimum standards for areas such as sanitation, accommodation, equipment, staffing levels, and certification of auxiliary health personnel. They also need to review at some level the actual processes of care delivered -- were diagnostic activities appropriate, and were therapeutic medicines and procedures provided? These and other similar efforts can be implemented through physician groups, specialty societies, and independent accreditation boards. Independent organizations would charge membership, and undertake periodic review and accreditation activities of hospitals, clinics, and labs, the results of which would be publicly disseminated. Currently, voluntary associations such as the one run by mission hospitals, set their own standards of care. The National Health Policy, however, rightly calls for an accreditation body more national in scope.

Financial and Management Standards. As demand for insurance and pre-paid schemes increase, some monitoring and control over financial soundness and viability is necessary. Minimum standards of insurance packages can be developed to assure coverage even in instances of unexpected costs; similarly, it is important that organizations manage their revenues and outlays prudently. This would be true for private companies, as well as public and non-profit. For example, the review and maintenance of the financial soundness of the ESSI schemes is an ongoing priority currently.

Review of Incentives for Private and Non-Profit Sector Growth. Current rules and regulations regarding incentives for private providers should be reviewed and perhaps streamlined. The National Health Policy calls for a reduced tax on equipment, but other taxes on foundations and non-profits may be discouraging their growth. In addition, there were concerns raised by several individuals and organizations regarding unnecessary lags in equipment importation, and problems with visa renewals for trained health professionals from other countries.

These issues may be especially pertinent to the non-profit sector, which some argue can play a useful role in providing a level of service that is less expensive than available in the private sector but of a better quality than available in the public sector. At the time of the creation of Pakistan, non-profit health facilities run by charitable trusts and foundations were more common than they are at present (as a proportion of the total number of health facilities in existence). Ganga Ram and Gulas Devi Hospitals in Lahore come readily to mind. However, some change in the taxation code in the 1970's removed the incentive for trusts and foundations to provide services in the areas of health and education. Fairly substantial foundations like the Sahigal and Dawood Foundations discontinued their activities. Changes in the tax code could revitalize this sector.

Discussion. Management of the health sector is a strategy that must be implemented concurrent with privatization and non-governmental growth in the health sector. Pilot experiments could begin with diagnostic laboratories, for example, where concerns have been expressed about variation in quality and there is possible overutilization through repeat tests. Hospital accreditation could follow, and representatives from hospital management boards and district health boards, could advise and steer the initial scope and process.

One issue that remains is whether these management strategies be national or provincial or local in scope and authority. This may be an evolutionary decision, as issues are addressed. Regardless, the Government's direct role should be minimized. Currently, the existing Pakistan Medical and Dental Council (PMDC) has the mandate to register medical providers, help control quality, and ensure professional ethics and discipline. It has not been successful in executing this mandate. The National Health Policy states that "at present, most of the members of the PMDC are officials and it is not surprising that those who execute the policies are not in a position to evaluate their performance." It recommends more independence and sharing with new provincial-based chapters.

For the longer run, the items listed below illustrate a framework for the Government to manage the marketplace:

Encourage Supply

Health Investment Code
Registration Options
Financial Deepening
Demand Stability
Organizational
Pluralism

Enable Demand

Accurate Pricing
Insurance Expansion
Reimbursement
Empowering
Poor/Underserved

Cost control

Information
Competition
Reimbursement tied to
Treatment Standards
Efficiency
Controlling Capital
Investment

Assure Quality

Professional Standards
Review
Accreditation
Management Standards

All of these items cannot be pursued at once, even within one of the categories shown above. But a mixture of these is certainly necessary for appropriate management and regulation.

5. Financing Health Manpower -- Improving Physician Education

There is little consensus as to whether there are too few or too many physicians in Pakistan. There is, at present, one physician for each 2,900 persons in the country; the ratio is expected to be 1:2000 by the end of the decade. Those looking at the issue from the perspective of an ideal and universal target of persons per doctor claim that the number is extremely low. Those looking at it from the perspective of the absorptive capacity of the economy claim that it is too high. All agree, however, that there is a maldistribution of physicians in urban centers, making the above ratio much lower than the national average.

This lack of consensus is reflected in different policies pertaining to actual policy and future planning. The Government has for the last few years been reducing the number of admissions to medical colleges. At the same time the National Health Policy states

that the "output of doctors or seats in the medical colleges cannot be reduced."

Debate over supply issues also tie closely to budgetary issues. It is well-known to policymakers that most graduates desire initial placement in the Government sector. This demand is, in turn, driving other policies related to medical care delivery in this sector. The World Bank's Population and Health Sector Report (1988, p. 33) states that "at present some 14,000 physicians are reported to be in public service due to the special employment creation programs to alleviate unemployment for physicians." At the same time, the Government has no control on the deployment of doctors to match need with supply. Doctors posted in rural areas in the public sector actually practice privately in urban areas on a large scale.

Supply and distribution issues aside, research and discussions indicated an increasing concern over the quality of medical graduates. Several policymakers and others noted that the current educational system has been plagued by a marked decline in achieving educational excellence evenly across medical schools. This was observed to be in part the result of rapid expansion in the number of medical colleges without ensuring the availability of the necessary teaching staff or infrastructure, and in part to some erosion of the effectiveness, integrity and credibility of the examination system.

While physician supply and distribution issues may require longer-term policy approaches, at least two policy directions might be pursued immediately, aimed at improving the quality and stature of new students, and the quality of medical education itself. These include policies related to the:

- o financing of medical education, including cutting outright budgetary subsidies to institutions; and,
- o creation of more independent certification process. While this cannot solely improve the quality of education, it can be a type of social technology-forcing mechanism to improve all aspects of the medical education process.

Financing of Medical Education. A number of the issues mentioned above can be addressed through a change in the method of financing medical education. At present the students are charged little or no tuition fees, and costs are financed by direct grants from the government to the medical colleges.

Discussions suggested that the same amount of money be routed through the students to the medical colleges. Here user charges would be enacted not to raise additional revenues but to effect efficiency in the system. Colleges would charge the true costs (or some proportion) to the students. Students would meet a high proportion of these through student loans. Medical colleges would

not receive supplementary funding from the Government.

No additional financing would be needed for this scheme; indeed it could become almost self-sufficient in that revenues would be generated once students started repaying the loans upon graduation. This could present substantial budgetary relief as well. Currently, for example, it costs the Government somewhere between Rs. 50-70,000 per student per academic year for tuition. Because there are approximately 3,400 medical graduates each year, the importance of this spending becomes substantial.

A number of other benefits would derive as well from this change in the method of financing, for example:

- o it would discourage applicants not fully committed to practicing medicine in the long run. This charge is often levelled against female students although it is yet to be substantiated in any rigorous way;
- o it would act as an incentive for students to demand better education and timely completion of the programs (presently a 5 year program takes almost 7 years to complete);
- o it would encourage colleges to use the funds more prudently and efficiently;
- o it would provide leverage to the government to channel the graduates into particular directions that would tie with social policy priorities, by preferential and partial write-off of loans. For example, loans could be reduced if the student committed some period of time (2-5 years) for practice in rural areas or further specialties in relative short supply. Such policies could effectively help ease the current distributional issue.

Privatization of the Certification Process. The decline in the quality of medical graduates can be discouraged by the creation of an independent or private final examination or certification process. The integrity of the examination system was widely-observed, and discussions indicated some restructuring is required. Contracting out the certification process to a private testing agency could help restore the credibility of the examination process.

The manageable numbers of medical graduates to be examined annually (approx. 4000) would make this approach administratively feasible. Currently, procedures exist in the form of high school examinations administered by the Cambridge and London University Syndicates, and the ECFMG and VQE examination for physicians.

Consideration could also be given to contract-out this service to an overseas agency for a few years. Again precedents exist in the

proposal to contract-out customs evaluation procedures to a foreign agency.

Discussion. Some details of the repayment scheme may need to be clarified before implementation to assure that funds would be managed carefully by both the Government and the individual students. In addition, equity concerns would warrant some retention of grant and scholarship stipends.

While some attempts have been made to raise tuition charges in the past, these have not been considered politically feasible. Incorporating them into a package with a loan scheme would make acceptance much more likely.

6. Rural Health

Rural health has been a stated national health priority for several decades. The vast majority of the population (75 million) live in rural areas, though only 34% of medical care health centers, 18% of the hospitals, 17% of the physicians and 5% of the nurses are to be found in these areas. Much capital investment and new programs have been initiated to begin to address the substantial needs of the underserved in rural areas. The percentage of Government development and recurrent expenditures in rural (versus urban) areas, for example, has increased since the late 1950s from 9% to over 30% for development expenditure, and from 21% to almost 45% for recurrent expenditures (Bashir and Siraj, no date).

The urban/rural inequities, then, may be diminishing in terms of Government expenditures. Most observers, however, agree that the Government's Rural Health Network is not operating very effectively. A substantial investment of MOH and donor effort has been directed to improving the effectiveness of the current system, but there is not now a clear strategy to fix it. Utilization of services and perceived quality of care are, for the most part, low. Physicians remain difficult to retain and recruit, drug supplies erratic, and outreach is scant.

Several alternatives emerged in discussions and review of research to date. These alternatives consist of three areas of reducing the Government's direct delivery role for curative care, and moving it toward encouraging privatization at the provider level, and to reinvest its resources in reimbursement for actual services provided, as opposed to its emphasis on bricks and mortar and salaries. These three areas include:

- o encouraging private providers or NGOs to assume the operation of clusters of rural MOH facilities
- o encouraging the Zakat Fund to expand its resources for health,

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and building upon the existing Zakat network; and

- o developing a rural insurance scheme.

Privatizing Rural Government Facilities. From a classic health financial and sustainability perspective, a model privatization strategy would involve private physicians or NGOs assuming responsibility for clusters of rural facilities. Delivery of personal medical services could be on a fee-for-service or preferred provider/capitated rate negotiated at the local level. Outreach and care for the needy could remain the responsibility of the Government, again through a direct reimbursement scheme. This would effectively shift the great part of the burden of most curative care from the Government to the private sector for those who could afford to pay, freeing scarce resources for needed public health programs, such as water, sanitation, education, and prevention.

It is less than clear, however, whether this model or any other physician-centered model will be effective in rural areas, because of mal-distribution issues (see section on Financing Manpower -- Physician Education). No workable set of incentives is currently known to attract sufficient numbers of physicians on a permanent basis. This is not an issue, either, in only Pakistan -- other developed and developing countries have been unsuccessful in resolving similar issues.

Not enough is known about the large private medical sector that now provides the bulk of rural curative services. It will be important to better know how this system works -- numbers, training and skills, services, effectiveness, income levels, and relationship to community -- before initiating any strategy towards privatizing the Government facilities. Experiments like the one proposed by the Family Planning Association for pre-paid health care at its dispensaries, payable in-kind, would be useful in testing limits of rural capacity to pay for simple curative services as well. Community health workers can be an available outreach component of a primary care system; budget constraints caution against the Government recruiting additional staff, however.

Extending the Zakat Fund. A promising component in developing a workable privatization policy is the Zakat fund, operating in the context of the Islamic precept, to reduce social disparities. It represents a working, community-based mechanism in rural areas that can identify the "truly needy" either in terms of income or needed care. There are 8.8 million indigent registered through Zakat fund, and about 1.5 to 2.0 million receive aid, both in urban and rural areas. The Zakat Fund has indicated a strong interest in allocating more of its resources to health care over the next few years. Its 38,000 local committees provide a ready and workable solution to extending coverage of needed care to greater numbers.

The Government could encourage some greater allocation for health care. Secondly, it could match Zakat funding. This may be somewhat less than straightforward, as Zakat has expressed concern about direct Government involvement, and secondly, because it pays the individual directly rather than the provider. However, a scheme might be worked out to use Zakat for eligibility, then work only with providers of care -- physicians, clinics, hospitals -- for payment of a basic package of services. This match could effectively double the number of eligibles.

Developing a Rural Insurance Scheme. The main issue of moving toward such a scheme relates to the unavailability of some contributory system from income or assets. Because of the poor wage structure in rural areas, policymakers have remained skeptical. Nevertheless, the National Health Policy has called for instituting a Rural Social Security scheme for worker disability and old age pensions. This scheme could be extended for health coverage and reimbursement.

Over the next few months and years, an important opportunity exists to further investigate this possibility, with the current Rs. 1 billion set aside for insurance schemes. Methods of monetizing products of rural labor, and converting to a contributory scheme must be explored. Once that occurs, experimental or pilot schemes could be started in some of the larger villages, and eventually extended. The scheme would most probably be Government-based or backed, at least initially.

Discussion. In developing and encouraging the privatization of rural service systems two additional issues need to be considered. One is whether management can be effectively decentralized at a local level. Specifically can the union council, district health board, or some other local body effectively help allocate resources and monitor the delivery of care? This issue is important for both curative and preventive services. Secondly, an overall rural health strategy should consider the role of modern communications in "leapfrogging" the health system to educate rural families in sound health practices. A component of public funds might be set aside for this purpose.

7. Government Employees: A Case Study

Government employees -- Federal, Provincial, Local -- comprise one of the largest organized wage and income groups in Pakistan. Their numbers are currently estimated at 1.5 to 2.0 million workers, and over 12 million including dependents and retirees. It is a diverse group, in terms of demographics and in terms of socio-economic strata. It is also estimated that expenditures for current health care coverage for this group are a sizable 42% of the total Government health budget. Because of its diversity, its sheer

numbers and expenditures, and the accessibility of its organization, it affords a unique opportunity to test and implement new approaches in health care financing.

The Federal situation is instructive. Federal Government employees receive an entitlement to health care services, by virtue of their federal servant status. There is no premium payment, either by the employees or on their behalf by an employer department. The entitlement is given by the Medical Attendance Rules of 1958, plus subsequent Amendments. Entitled patients may seek care directly, without special authorization, from any federal medical facility, and given no special status (relative to the public at large) at autonomous institutions. According to need or accessibility, federal employees may receive care at provincial hospitals and private institutions, subject to approval.

There is some differentiation of health care benefits for entitled persons, depending upon their employment grade. Those of Grades 16 and above (so-called "Class I Officers") can occupy the semi-private "Officers' Wards" for trivial charges on a per diem and obtain necessary pharmaceuticals, not stocked by the hospital, free of charge. For certain high cost illnesses outside of government facilities, charges are reimbursable. Those in grades 1-15 receive a "Medical Allowance" of Rs. 50 per month, intended for use of outpatient services not covered. For example, this might include pharmaceuticals not stocked by the hospital. More resources per month may be authorized to employees for "continued and chronic diseases."

What might be instituted are pilot projects which move federal employees away from the current system into more choice and flexibility across schemes. These choices could include ESSI, private insurance of some type (subject to minimum package standards), and the current system. Benefits could be monetized, and contributory schemes -- including both employer and employee contribution -- could be established. These contributions could be used to enroll employees in any of several schemes.

Because current employees perceive medical benefits as an entitlement, pilot projects may have to begin with new employees only. For others, participation could be voluntary. Over time, the number of enrollees could accelerate. For the Class I Officers, additional packages, such as catastrophic coverage could also be made available on a voluntary basis. This would provide certainty of coverage for expensive illnesses that require care outside of the federal delivery system. This income group may elect the certainty given their relatively larger discretionary income streams.

Over time, the Government and employees may elect to move to a scheme that provides reimbursement for care rather than the direct delivery systems. This would save money, provide flexibility and

choice of providers, and encourage demand for modern health care systems. Of course, reimbursement schemes should be carefully designed to encourage incentives for high quality and cost-effective care, such as pre-paid schemes like Health Maintenance Organizations. Similarly, catastrophic coverage packages should include appropriate copays and deductibles.

IV. Concluding Remarks

If the GOP and USAID initiate a process in health financing, each will better succeed in achieving mutual objectives if expectations are moderated at the outset. Accomplishments will be difficult to achieve, and the required course of action may change as the process unfolds.

In the initial stages, a positive outcome for USAID would be to provide a strong sense of direction in national health care financing, reflecting the findings and discussions in this report. At the same time, the Government must provide the climate for increased private investment in the health sector, and promote pluralism generally. Specific projects, too, can be initiated in discrete areas or provinces on a small scale. If projects are successful, they can be evaluated for extension to other parts of the health sector.

For the longer term, the process of experimentation and testing, within a framework of general policy direction, might be institutionalized. This could be accomplished through either a public sector organizational focus, or through a private Pakistan-based foundation that would foster new and promising models of change. In fact, there would be sufficient tasks for both private and public organizations, and each could focus on their own segments of the health sector. Funding would be provided to applicants on a competitive basis for specific periods of time, to develop, test and evaluate alternative approaches to health service delivery systems. Other countries, such as the United States, have used these organizations to refine and develop innovations in health services delivery, and allow transitions to policy changes more easily and with minimal adverse consequences on affected groups.

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SCOPE OF WORK

PHASE II

**Interim Activities for USAID/GOP
(Prior to October 1990)**

I. Observational Visits

To maintain momentum on broad issues in national health financing prior to the onset of Phase II, USAID and the GOP may wish to undertake several discrete observational visits targeted towards eventual implementation of the main recommendations in this report. These visits would give policymakers the opportunity to gain first hand operational knowledge from other Ministries of Health (and in the United States, state departments of health) presently attempting to restructure their health sectors. Suggested sites are as follows:

1. Ministry of Health, Singapore

The Ministry is now into its third year of restructuring Singapore General Teaching Hospital, a 1,640 bed facility. Its legal status is now the same as Singapore Airlines (a government-owned private corporation with all employees being hired and fired on private sector competitive standards). In return for granting this hospital private sector status, the government required that 20% of the bed space be reserved for indigent care. Each year, the government will negotiate a rate for these beds, but the rate is carefully structured to be less than actual costs. The difference has to be cross-subsidized from revenues generated for the remaining 80% of beds.

The net result of this effort will be to remove the MOH's largest cost item from public financing. At the same time, high quality indigent care is guaranteed by the Ministry. Thus, goals of equity and efficiency have been addressed. The MOH contracted out the technical assistance for this activity to a U.S. contractor.

2. Ministry of Health, Seoul, South Korea

The Ministry is now in its eleventh year of privatization for the Seoul National Teaching Hospital, located on the grounds of the University. In this model, the government has maintained all control over capital inputs (equipment, renovation, expansion, etc.), while placing the responsibility and accountability for recurrent costs with private providers and managers. In 1990, only 2% of recurrent costs had to be subsidized by the MOH for indigent care in this 1,660 bed facility.

Seoul National also created a Health Data Research Center which

monitors costs and service utilization for the hospital, and on a contract basis, performs the same service for other Ministry facilities as well as private hospitals.

An additional reason for this particular observational visit is to see how this facility operates with an insuring organization. In 1975, USAID/Seoul initiated with the ROKG a pilot project in health insurance. The ROKG sustained this investment after the project ended in 1980. Today, it covers 85% of all Koreans, including its rural population. It is financed through mandatory payroll deductions of 1.9% of payroll from both employees and employers, while household taxes are levied on rural groups. Members are guaranteed a minimum level of basic inpatient and outpatient benefits, and thus have access to either private or public facilities. It works something like a cafeteria: for those with higher incomes, the benefits pay for only a fixed percentage of a private room's costs. If the patient wants steak - he gets and pays for it directly and the difference between a premium meal and the standard fare is deducted.

Here the delegation can also see the effects of reimbursement on overall resource allocation and the development of standards in the health sector generally. Originally, the MOH resisted the onset of a national health insurance program. Now, it can focus its entire budget on public health activities and the underserved, while at the same time setting national health policy guidelines, standards, and regulations for the entire health marketplace.

3. Ministry of Health, Arab Republic of Egypt

When Nasser nationalized all Egyptian economic sectors in 1958, he permitted a small group of hospitals to remain private. In return, these hospital agreed to hold 20% of their bed space for indigent patients. This became know as the Curative Care Organization (CCO). Its Administrator is appointed by the Minister of Health, but the CCO operates in all other ways free and clear of the Ministry. The present Minister of Health is the immediate former Administrator of the CCO.

The CCO obtains 40% of its operating revenues from contracts, 20% from fee-for-service patients, and the remaining 20% is a subsidy from the Ministry for indigent care. As in the case of Singapore, the Ministry negotiates a flat rate with the CCO each year for these beds, but the amount subsidized is insufficient to cover actual costs.

Additional reasons to visit Cairo are that USAID is presently assisting the CCO to design and install a modern Management

Information System, and the MOH, with USAID assistance, is in the initial stages of implementing a cost recovery program for 40 hospitals and 10 polyclinics. These two activities are funded at \$55 million. A third component, funded at \$35 million, will establish a loan program for private physicians with priority funding going to those relocating in rural areas.

4. University of Maryland, Washington, D.C./Baltimore, MD Medical Center and Teaching Hospital

In 1988, the Maryland State Assembly, faced with budget shortfalls in its educational system, decided to grant its medical faculty and providers in the teaching hospital the opportunity for private practices in public facilities. This solved two problems for the Assembly: 1) with increased specialization in medicine, medical faculty were being lured away to private practices, and 2) the costs of maintaining the teaching hospital and medical center had increased at disproportionate rates to other items in the state budget.

The private practice option was a "win-win" situation. The State could remove the recurrent budget of the medical center and teaching hospital (for MDs and specially nurses) from its budget. The physicians maintain the cachet of being attached to a University campus while being reimbursed at market rates for their services.

5. Prince Georges County Hospitals, Prince Georges County, Maryland & Washington, D.C.

In 1986, the three public hospitals operated by the Prince Georges County Government sub-contracted out their management to a for-profit hospital firm. These hospitals were funded by state and local tax revenues, served basically the poor, and had been running deficits to the point where public officials had to reduce service provision. The solution was to maintain the hospital as public institutions, including all personnel as civil service employees. However, the for-profit management contractor was given a free hand to restructure the personnel system in terms of job-assignments, work schedules, and to initiate incentives for higher productivity and efficiency. Soon after the contract was signed, the sub-contractor fired 1,100 physicians, nurses and ancillary personnel. Although their unions protested vigorously, their protests lasted for only one week. Everyone realized that there were only two choices -- either the county would have to close the hospitals, or the hospitals would have to operate more competitively.

Today all three of these hospitals earn more revenues than incurred expenses. Public officials were able to sustain service equity for the poor while increasing efficiencies in operations. The for-profit management contractor contributed significantly to improvements in clinical staff productivity, and to management systems which increased collections from third party payers such as Medicaid, Medicare, and private insurance companies.

6. University of New Jersey, Medical Center, Trenton, New Jersey

Essentially, the same as above. In this case, the physicians contracted out the management of their practices to a private consulting firm. In the first year of privatization, they attempted to run the management themselves, but lost several millions of dollars. The volume of business was so high that they couldn't prioritize their clinical practices with the management of billings and collections. As a result, they fell hopelessly behind in collections from third party payers.

7. University of Texas, University of Texas Health Systems, Austin, Texas

The State Legislature of Texas has embarked on an ambitious program to make Texas a worldwide center of medical excellence by the year 2000. The loci of this public investment is through the University of Texas Health Systems. For instance, the Anderson Cancer Center in Houston is rapidly gaining a reputation as the leading care and treatment center for this disease. Other centers, such as those for heart and other organ transplants, are better known.

While attention seems always to focus on the specialty practice of medicine, the University of Texas Health Systems also reaches down to the community and to the practice of community medicine through non-physician providers. In terms of geography and ethnic groups, Texas is perhaps more diverse with population groups more difficult to reach than other states (Alaska excepted).

As in Maryland and New Jersey, Texas had to go through a process of restructuring its health service centers from a purely public model to one now considered public-private. In this way, the state continues to attract the best and the brightest to teach in its medical schools, while at the same time providing them with private practice options. Texas also has more medical referrals from the Arab world than any other state in the U.S., as well as more students from these countries.

8. National Health Service Corps, Department of Health and Human Services, Washington, D.C.

In 1972, the Congress authorized the formation of a National Health Service Corps (NHSC). The purpose of the NHSC was to relocate medical personnel (physicians, dentists, nurses, etc.) to underserved, mainly rural, areas of the U.S. For physicians and dentists, the Government offered to reduce their loans for medical school education by 50% in return for two years of service, and by 80% in return for three years. In return, the physicians were given a civil service rating of GS 13 housing, and other allowances.

The community receiving these personnel agreed to provide the practice site, all medicines, supplies and equipment, support personnel, and management. In addition, contracts were negotiated between the NHSC and the communities in which the communities agreed to repay the government for the salaries of medical personnel if their operating revenues were in excess of their expenses.

The success of the NHSC has been mixed. It has attracted physicians to rural areas, and many rural areas fundamentally depend on rotating service corps physicians. Others argue that a central tenet of the NHSC was to induce medical personnel to relocate permanently to rural areas of the U.S. after their service obligation was completed. However after 18 years of experience, this has generally not occurred. There have been at least two lessons:

1. The problem of maldistribution of medical personnel cannot be solved by the application of resources alone;
2. From a public policy perspective, it is important to address the issue of maldistribution and respond to the needs of rural areas, while at the same time understanding that success remains elusive. The question then becomes: how much is government willing to pay in addressing an equity issue which is not completely responsive to changing levels of resource application.

It is suggested that those going on observational visits be limited to those who subsequently who may be the actual participants in restructuring a teaching hospital(s) in Pakistan (and in the case of the NHSC, someone involved in rural issues). In any event, the number should be small, perhaps not more than five in total. A variant of this may be two separate groups, one visiting Korea,

Singapore and Egypt, and the other the U.S. However, at least one person should participate in both groups in order that the observations and experiences can be placed in a coherent context.

II. Collection and Annotated Review
of Existing Research, Analysis, Observations

USAID should hire a researcher to review and annotate all the materials now available on health financing in Pakistan. Secondly, there should be an in-depth review and synthesis of these materials/knowledge base pertaining to the areas of focus in Phase II. (This latter task could actually either be done independently before Phase II begins, or in conjunction with the beginning of Phase II. In either case, it would provide individuals in Phase II with a workable synthesis on what is known to date

Such annotation and syntheses could be quite helpful to the Phase II tasks, and the team, and it would help the Mission build up an organized body of knowledge in the subject.

SCOPE OF WORK
(OCTOBER 1990 ONWARD)

I. Fostering Privatization of Curative Care

A number of hospitals, primarily secondary and tertiary/teaching facilities could feasibly move, over the next few years, from dependency on Government recurrent budget allocations and other Government rules and regulations, to full autonomy, which could include full financial self-sufficiency. This need not be a large number of institutions initially, and could be tied to individual hospital interests currently, as a number of them expressed desire toward greater autonomy in discussions in Phase I. These hospitals included Jinnah Post-Graduate Medical College and the National Cardio-Vascular Institute, both in Karachi.

This task would be staffed by a team of experts, consisting of a consultant who has worked on similar projects in other countries, such as Korea, Singapore, and United States (see, for example, the Interim Projects attachment to the transmittal letter), a hospital administrator with a strong management and finance background, and a physician. Having been part of a team undertaking similar tasks in other countries should be considered very important; certainly be given a competitive advantage. The team should investigate experience of the Asian Development Bank in this area as well.

The team should first consider finding out which institutions may want to participate; this might require some letter of information to every institution at (say) the tertiary level in the country. It should, of course, be done with the close working of the government bodies. But knowing prospectively the numbers and types of institutions participating (broadly speaking) could force some thinking about issues common across each. Correspondingly, the work could be tailored to these groups.

Working with the team should be a steering committee, composed of representatives from the government bodies, the business community, selected specialty groups, an insurance executive, and hospital administrators with a strong management background. This group should meet early on, and periodically as necessary.

A number of tasks would address issues in need of review and examination:

- current regulations, administrative and institutional arrangements and changes which would be required to implement the proposed changes in status. The team should review other

- autonomous institutions and constraints;
- the legal framework for establishing full autonomy for managing the facility;
 - the future employment status of other doctors and other staff currently on government roles;
 - options for the rules and financial arrangements governing private practice in the hospital, including the best option for utilization of the hospital (e.g., lease, contract, etc.);
 - authorities required to appoint and remove staff, and training needs;
 - the need for standardized, perhaps automated, cost accounting systems, as well as systems to collect standard uniform discharge data abstract ("UHDDS" in the U.S.) information related to the clinical status of the patient;
 - the current patient mix -- who visits urban public sector facilities and why;
 - the market to be served by the facility following changes, including contracting processes with insurers and other business organizations;
 - Estimate impact of various policy changes (e.g., user charges, partial privatization, etc.) on welfare of users.
 - sources of revenue to cover operating costs: discuss how payment for services extended to government employees, the poor, and the indigent would be made;
 - the sources of revenue for capital costs;
 - factors the government should consider in deciding its financial responsibility for costs related to teaching and capital investment, especially over time. For example, it could set interim revenue targets, to be phased-in year by year. These targets could be set by types of facilities, types of patients (case-mix), and percentage of poor. For example, set a revenue target for tertiary care facilities of say 20% of cost in a year and 30% the next year, accounting each facility flexibility in reaching the target.
 - budget forecasting;
 - factors, including staff and equipment, to assure efficient

billing and collection processes;

- any continuing public sector monitoring responsibilities, including level of indigent care, quality of care, and fiscal integrity;

The project would also benefit from a local consultant who would understand the market, and has experience in field surveys, for some of the days. A legal consultant would also be necessary for some of the days.

Time and Personnel

5 individuals for team

- consultant/team leader, with experience in topic area (90 days);
- hospital administrator, with strong management and finance background (60 days);
- physician, with either some business background or specialty training (e.g., radiology, cardiology) or both (60 days); preferably a Pakistani if available;
- economist or social scientist, with field survey experience (45 days); preferably a Pakistani who understands health care sector.
- legal specialist/consultant (20 days)

and an Advocacy/Steering Committee, composed of representatives from the government bodies, the business community, selected specialty groups, an insurance executive, and hospital administrators with a strong management background. This group should meet early on, and perhaps 2 more times, mid- and end of study.

Costs

- | | |
|------------------------------------|-----------|
| - Air fare, at \$2,600 each | \$ 13,000 |
| - Per diem, 275 days \$98 per day | 26,950 |
| - Labor, 275 days at \$296 per day | 82,200 |

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- Overhead at 110%	90,420
- Miscellaneous, including in-country transport	2,000
- Steering Committee, at \$5,000 per meeting	15,000
Total	\$229,570

II. Developing and Extending Insurance Schemes

(1) Use of the Insurance Mechanism to Finance Health Benefits

Little is known in Pakistan about the actual cost of delivering a package of services and the risk thereof. Thus, without knowledge of costs and without tying the amount of reimbursement to the prices charged for services -- and in turn relating those prices to the actual cost of service provision -- any move toward insurance expansion will simply push money into an unrestrained supply system, and push prices up. Discussions indicated that this is one underlying reason why Pakistani insurance companies have moved so cautiously to expand investment.

In order to review the existing insurance sector, the following skills, and accompanying scopes of work will be required:

- to translate characteristics of ESSI population and other covered groups into risk factors for rate determination of benefit package (assuming premiums covered all benefits) such as demographic factors, e.g., age specific death rates, etc.
- to determine from above characteristics, approximate number of inpatient visits, outpatient care, prescriptions, X-ray, and other health services required by the population served;
- to determine credibility and reliability of existing ESSI and other data bases (PIA, Pak Steel, etc.) for rate and risk determination;
- to assess existing actuarial tables from Pakistan life insurance companies and compare data base with ESSI;
- to provide descriptive cost data on service utilization/consumption on ESSI population vs. other insured groups and the general population;
- to determine costs of outpatient services as a covered benefit;
- to review demographic data from the Ministry of Health and the Ministry of Planning and Development, and determine from this some general population, epidemiological and social data indicators (childhood illnesses, family size, drug utilization, hospitalization, service intensity, provider ratios, etc.);
- to project future costs implications of service provisions to

ESSI through the year 2000 against these scenarios:

- premiums remain static, but costs of benefits increase;
- premiums increase consistent with costs;
- costs increase with treatment patterns for chronic diseases, but premiums and benefits increases are in line with inflation only;
- labor force increases but premiums and benefits remain the same;
- ESSI continues with employer contributions only, but employees are given choice to opt out to their insurance plans.
- to project actuarial data from ESSI and other covered groups to the cost of a benefit package for government employees. This should be done for federal employees, and for provincial employees to the extent possible;

(2) Designing Benefit Package Design

Benefit packages will need to be designed for employers and consumers; the design should be "modular" in the sense that a variety of packages could be marketed, though minimum standards are an important component. The tasks should include:

- to identify major problems and risks relating to an insuring organization-provider organization and consumers (under what conditions and with what kind of incentive program would physicians practice with an insuring organization);
- to determine legal/regulator issues which need to be addressed;
- to interview insurance community leadership and determine requirements for malpractice, liability coverage and reinsurance;
- to determine, investment constraints/barriers for existing insurance companies to expand into health coverage;
- to determine, in collaboration with the actuarial specialist, the composition of a benefit package, including costs for inpatient and outpatient benefits, expensive illness or "catastrophic coverage" benefits (either together or as

separate package), and risk management fees.

(3) Development of Health Maintenance Schemes

The GOP has expressed interest in extending the HMO concept to Pakistan, because it is a recognized mechanism for providing insurance coverage while promoting efficiency and cost-containment. An HMO option could be competitive with ESSIs and corporate plans of one sort or another. It would be useful to investigate the feasibility of providing this option to organized groups. Tasks should include:

- to assess labor requirements necessary to provide comprehensive health services within the ESSI system;
- to assess management/administrative structure to support clinical service delivery requirements, including staffing plans for demonstration units;
- to assess training needs for management/clinic personnel;
- to meet with professional medical societies and leadership and determine constraints to the use of health insurance for financing care;
- to determine best option for utilization of hospital (i.e., lease/contract with existing ESSI hospitals, with other hospitals which have excess capacity, etc.
- to determine, if ESSI beneficiaries given choice, need for specialty care outpatient requirements, including clinics, laboratories, dental and X-ray facilities;
- to determine best option for utilizing physicians (i.e., group practices, group specialty practices, ESSI physicians vs. other private providers, government hospitals on a contract basis vs private hospitals, etc.

(4) Determining Government's Role in Expanding Choice and Expanding the Insurance Industry

The Government can play a key role in opening the market for insurance schemes, and in fostering some experiments with large corporations which would provide a choice of schemes to employees. Several tasks should be undertaken:

- to assess the legal and administrative issues related to

insurance companies forming joint risk insurance reserves or "pools", to offset uncertainty and lower per unit costs; estimates of savings to consumers should be undertaken;

- to determine conditions under which the Government might provide re-insurance pools, and/or underwrite or risk manage insurance schemes, including discussions with insurance executives about which markets would be useful start-points, and what types of benefit packages would be considered;
- to assess the legal and administrative constraints in large corporations providing a choice of plans and schemes to employees; correspondingly, what incentives (e.g., tax code, reinsurance schemes, etc.) could be offered by the public sector to foster such demonstrations;
- other issues insurers perceive as impediments to expansion of the insurance market (e.g., over-regulation, etc.)

Time and Personnel

(1) These tasks would require the efforts of 2 Actuarial Specialists for one month each. The specialists need utilization estimation/management and control system expertise; operational experience in the analysis necessary to establish rate/price determination; and risk pool management experience.

(2) These tasks would require an Insurance Benefit Package Design Specialist for one month. This person needs to have had direct operational experience in an insuring organization, and overall experience in budget forecasting benefit package design, the design, the development of reserves, and legal experience in protecting the rights of the insured.

(3) These tasks would require an Executive Director of Large Scale Prepaid Plan for one month. This person needs to have had direct operational and clinical experience in managing a HMO or a similar prepaid scheme, and to have overall experience in management structures, provider incentives and clinical management; budget forecasting, and facility management.

(4) These tasks would require 45 days of effort from an Insurance/Underwriter/Risk Management expert. This person should have a strong legal background or legal experience, and risk pool management/reinsurance experience.

Costs

-	Air Fares, 5 round trips at \$2,600 each	\$ 13,000
-	Per diems, 165 days x \$98 per day	16,170
-	Labor, 165 work days x \$296 per day	48,840
-	Overhead on Labor at 20% (4 individuals)	7,104
	110% (benefits package person)	10,094
-	Miscellaneous	1,500
	Total	\$96,708

III. Developing a Rural Health Insurance Scheme

There are three basic parts to this project. The first would undertake a survey of the private medical sector in rural areas, to understand better how the bulk of health care is currently being provided.

A second part would a review and identification of the organizational opportunities and possibilities for developing a rural insurance scheme. As the report notes, one of the major hurdles in developing a scheme is an organizational structure or mechanism to identify those covered, to understand the demographic and epidemiologic characteristics of the covered population, and systematize some ongoing contributory scheme.

The third part of the study would develop actuarial estimates for the scheme itself, estimating its needed contributions, reserves, and payouts. It would also suggest any organizational process needed to smoothly implement the scheme or suggest specific provinces or areas where it could be tested.

(1) Survey of Private Sector Medical Care Sector in Rural Areas

The objective of this study and report is to obtain an overview of the private ~~sector~~ medical care structure and operations in the rural areas. It should first synthesize existing data on epidemiologic and demographic characteristics, and the costs of health care, utilization, and provider population (disaggregated to the extent possible) in the rural areas -- as a baseline. Then, the study should identify, on a local level, and on a representative basis

- numbers and types of providers, including part-time government staff;
- their training and experience, and reasons for practicing in rural areas;
- the range and volume of services provided;
- numbers and types of pharmacies, and services provided including types of drugs and supplies sold; and including drug suppliers;
- estimated income levels of physicians, pharmacists, and other providers;
- relationships to the public sector system, and to each other;

- qualification judgments should be developed on provider roles, status, and tenure in the communities served;
- to the extent possible, the feasibility of using NGOs for assuming responsibility for clusters of rural facilities should be assessed, especially in the context the current system.
- to the extent possible, the implications of the current system relative to development of a proposed rural insurance scheme;

The investigator(s) should select 2-3 clusters of villages and small towns in different provisions served by the Rural Health Unit/Basic Health Center, Tehsil Hospital network and develop case studies that describe the private sector health resources that serve each region. Areas selected should be large enough to include a full time range of providers available within a reasonable travel time for rural people. After obtaining basic satisfaction data on numbers and types of providers, the study should seek to present a composite picture of each provider in terms of the criteria above. More emphasis should be placed on reaching informed qualitative judgement than on developing precise statistical material. The investigator(s) would be expected to conduct their field work at the selected field sites for from 4-6 weeks.

(2) Assessment of How to Organize and Implement Rural Insurance Scheme

The second part of the study is a report to assess organizational/current infrastructure opportunities for developing a rural insurance scheme. For the Government, or a non-Governmental organization such as the ESSIs, to be successful in developing a scheme, either a current organizational mechanism must be found, or a new one put in place. This "intermediary" organizational mechanism must be able, at the least, to:

- identify eligible individuals, families, dependents for coverage and reimbursement;
- process claims from the provider, and reimburse as appropriate;
- serve as an intermediary between provider and the Government or other source of revenues;
- monitor any waste, fraud, and abuse as necessary.

The preference would be to build on current or developing schemes.

Some examples would include the Ushr, Zakat, tax and collection on public services, such as water or sanitation, local communication network taxes levied (e.g., waterway tax, road levies, etc.) local community or health boards (e.g., District Health Boards), and the developing Social Security scheme for workers disability and old age pensions -- as discussed in the National Health Policy. A health insurance component might be added to this Social Security Scheme, as is the case in the urban areas. A number of issue areas should be reviewed and examined relative to the criteria specified above, in identifying and recommending an intermediary:

- methods for monetizing, or making contributory, the products of rural labor, including current approaches in both Pakistan and in other countries;
- ability of an existing organization to absorb new responsibilities;
- needed staff, expertise, and training currently not available to the organization;
- current intermediary activities with the provincial or federal agencies, problems and successes;
- start-up time needed, either for new and existing;
- monitoring activities, as needed.
- feasibility of starting a scheme in selected areas (e.g., larger villages) or provinces, versus nation-wide.
- an estimate of the revenues generated, and possible "leakages" in collection processes, of recommended methods for contributory schemes;
- feasibility and desirability of government involvement, either federal or provincial.

(3) Design of a Benefit Package and Use of Insurance Mechanism to Finance Health Benefits

Little is known in Pakistan about the actual costs of delivering a package of services. The first component of this scope of work should begin to enlighten designers about current patterns of utilization and charges in the private sector. Once this work is available, a number of issues/tasks should be included in designing benefit packages and developing a rural insurance mechanism:

- determine the composition of a benefit package, including costs of inpatient and outpatient care, and intermediary or risk management fees. The package should be designed carefully, to encourage access to needed care, but to avoid unrestrained utilization that is unnecessary. Thus, the package may include some deductibles and copayments, or may include a mix of services less subject to abuse;
- translate characteristics of the rural population (or specified covered groups) into risk factors for rate estimation of benefit package (based on what percentage premiums would cover benefits) such as demographic factors (e.g., age-specific death rates, etc.);
- determine from above characteristics approximate number of inpatient visits, outpatient care, prescriptions, x-rays, and other services required by the population served;
- determine credibility and reliability of existing databases (e.g., corporations with rural work force, Zakat Fund) for rate and risk determination;
- assess existing actuarial tables from Pakistan life insurance companies, especially as pertains to rural population, and compare to other rural experience;
- using descriptive cost data on service utilization from the first component, determine costs of types of services (e.g., inpatient surgery, outpatient) as a covered benefit;
- review demographic data from the Ministry of Health and the Ministry of Planning and Development and others (including the first component of this study) and determine from this general population epidemiologic and social indicators (e.g., childhood illnesses, family size, drug utilization, hospitalization, service intensity, provider ratios, etc.);
- project future cost implications of service provisions to rural population covered through to the year 2000, under several scenarios:
 - premiums remain static, but costs of benefits increases;
 - premiums increase consistent with costs;
 - costs increase with treatment patterns for chronic diseases, but premiums and benefits increases are in line with inflation only;

- covered population extended but premiums and benefits remain the same;

Time and Personnel

The three parts of the study should build upon each other, or be integrated to the extent possible. Individuals from all three components should meet periodically if at all possible. The three parts could conceivably be carried out by fewer individuals for a longer period of time; however, the time and personnel are discussed here in three discrete pieces.

(1) The study should be completed in 90 days. The study should be carried out by a mature social scientist with a knowledge and understanding of the region, history, and culture. A demonstrated capacity for rural based-analysis is important. Pakistani medical anthropologists would be academically ideal, but individuals with broader social science training would also qualify. Expatriates should be utilized only if qualified Pakistani professionals are not available.

(2) The study should be completed in 60 days. It should be carried out by a social scientist/economist, or a consultant with a background in organizational management. The individual must have some familiarity with insurance schemes, especially health insurance schemes, whether public or private. A good understanding of the rural areas would be helpful, and the investigator(s) would be expected to conduct field work at the selected field sites for from 4-6 weeks.

(3) The study should be completed in 45 days. These tasks would require use of benefit design specialist for 15 days and an actuarial specialist for 30 days. These individuals must work in tandem. The Insurance Benefit Package Specialist should have direct operational experience in an insuring organization, and overall experience in budget forecasting benefit package design, the development of reserves, and legal experience in protecting the rights of the insured. The Actuarial Specialist needs to have utilization estimation/management and control system expertise; operational experience in the analysis necessary to establish rate/price determination; and risk pool management experience.

Costs

- Air fare, at \$2,600 each	\$ 7,800
- Per diem, 195 days \$98 per day	19,110

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DRAFT -- 28 JUNE 1990

- Labor, 195 days at \$296 per day	57,720
- Overhead at 110% x 3 individuals	53,724
at 20% x 1 individual	4,400
- Miscellaneous, including in-country transport	2,000
Total	\$144,762

IV. Managing the Health Care Sector

Both the Seventh Five Year Plan and the National Health Policy articulate the need for the Government to provide guidance to an expanding health care sector -- public and private. It is the team's assumption, confirmed in debriefings with the Government, that what Pakistan desires is to create an appropriate legal and regulatory framework to foster a promising evolution of the private sector in health care in Pakistan.

Unfortunately, the private sector is moving and growing, but with little direction or Government guidance, and it is in danger of becoming unwieldy and uncontrollable. There is a series of five immediate opportunities to assist Pakistan in organizing its health care "marketplace". All imply, subsequent to Phase II, extensive technical assistance and even more extensive training and preparation of human resources in the health sector:

- (1) Population Grouping -- to begin experimentation with grouping currently uninsured and insured sections of the population ("risk pooling") in order to experiment with mechanisms for expanding insurance coverage (i.e., government employees, ESSI beneficiaries, rural residents, etc.).
- (2) Insuring the poor -- the immediate problem is that so little information is available about "the poor". Who are they? Where are they? What are their unmet needs? What is their current health behavior? What are their resources?
- (3) Pricing Services/Developing Cost Controls -- there has been an explosion in the prices of private medical care, and this is related to the surge in demand. The government needs to build information and experience for the establishment of an insurance or reimbursement system with built-in cost-controls.
- (4) Quality Assurance -- It has been widely acknowledged that quality standards for care and professional behavior are needed. The medical community has not been organized for self-regulation, however, and models for how to both organize and accredit are not widely available in the country.
- (5) Controlling Capital Costs -- If current directions are any indication, there will be a rapid increase in equipment imports. Without a regulatory "level-playing field," there will be two results: (1) expensive equipment will come on the market, requiring high utilization to recover investment costs and profits; (2) if not tied to some type of licensing and accreditation system, more liberal access to equipment will

create a marketplace for charlatans. Quality assurance on use will be a prerequisite.

There is a wide recognition in both the public and private sectors of the danger of falling standards in Pakistani medicine. There is also widespread interest in responding, both to ensure quality and to control costs. There is the opportunity to exchange with Pakistan the experience of other countries in quality and utilization control for the health sector.

The following tasks should be undertaken:

- (1) Assessment of the current legal and regulatory framework in the health sector, including responsibilities by levels of government. Several areas should be addressed:
 - to review existing health investment code requirements of Federal, Provincial, and Local Government bodies;
 - to review, if there is no health investment code, the investment code for small and medium scale industries in Pakistan;
 - to meet with leadership of professional medical bodies (Medical and Dental Associations, Nurses, etc.);
 - to meet with government bodies which currently license or otherwise authorize private medical groups to practice (both non-profit and profit);
 - to meet with leadership in the insurance community and determine existing barriers/constraints to increased investments in the health sector;
 - to meet with leadership in the non-profit health community and determine existing barriers/constraints to increased investments in non-profit and foundation organizations in the health sector;
 - to meet with government bodies which license or otherwise authorize the importation of high tech medical equipment;
 - to meet with such consumer advocacy groups as may be found in the country;
 - to formulate, from the above, draft legal and regulatory guidelines for consideration by Federal and Provincial authorities.

- (2) Development of an approach to accreditation and standards setting organizations; including the following areas:
- to meet with leadership of Pakistani professional medical and nursing associations;
 - to determine existing standards for accrediting facilities/providers, if any;
 - to meet with leadership of the Ministry of Health at Federal and Provincial levels and determine past and present efforts at accreditation (barriers/constraints, etc.);
 - to conduct a one day workshop for interested parties on the operation of the Joint Committee on Accreditation in the U.S. to share this model as well as similar experiences underway in other countries;
 - to meet with owners/operators of private hospitals, clinics and laboratories and determine their views on accreditation procedures, monitoring and compliance;
 - to draft a report addressing accreditation issues, potential for implementation and suggestions for initiation, e.g., selected tertiary hospitals, etc.
- (3) Development of methods for linking clinical and financial community for assessing risk, determination of standards of financial reserve and solvency, and methods to control or manage risks; this effort should include the following areas:
- to work closely with the other study leaders (see below) and determine how providers can relate in an organized fashion to insuring bodies, regulatory organizations, and beneficiaries;
 - to assess need for specialty care in organized delivery systems (ESSI, Pak Steel, PIA, etc.) as an indicator of future demand and changing epidemiology;
 - to determine potential for specialty care and catastrophic coverage delivery and insurance mechanisms (i.e., capitation payment, direct contracts with provider groups, etc.);
 - to meet with leadership in the specialty provider medical community and determine their views on organized delivery via the insurance reimbursement financing system;

- to meet with leadership of the insurance community and seek out their views on barriers/constraints, moral hazards, etc., expanding health insurance coverage, and methods to lessen risks;
 - to meet with leadership of the insurance community and seek out their views on standard setting for financial reserves, fiscal solvency, and other financial/actuarial standards for financial organizations involved in health care delivery systems;
 - to meet with leadership of the ESSI and corporate community and seek out their views on standard setting for financial reserves, fiscal solvency, and other financial/actuarial standards for financial organizations involved in health care delivery systems;
 - to draft a report addressing present constraints and future potential for providers, and insurers to join together in an organized manner for service delivery to enrolled population groups.
- (4) Assessment of current and future capital needs, current barriers to entry, and the framework needed to promote appropriate growth; areas to be addressed include:
- to meet with leadership in the banking/finance community to determine barriers/constraints for investments in the health sector;
 - to meet with senior members of ministries of finance at Federal and Provincial levels to determine their forward plans for investments in the health sector (capital vs recurrent, etc.);
 - to meet with senior officials in the Planning Commission for their assessments on past investment strategies and their implications for the future;
 - to meet with leadership in the private medical sector (profit and non-profit) for their views on barriers/constraints to increased capital investments;
 - to meet with leadership in the medical equipment sales community, especially importers, and determine trends in types of equipment being sold, constraints in supply, and determine preliminary demand for future sales;

- to meet with leadership in organized delivery systems (ESSI, Pak Steel, PIA, etc.) and determine trends in their capital needs for financing existing investment and future growth in their markets;
- to meet with leadership of tertiary teaching hospitals and seek out their views on capital investment requirements necessary to sustain current operations, as well as future expansion;
- to draft from the above visits a preliminary financial brief on the state of the capital market in the health sector, including future projections.

Time and Personnel

- (1) Legal and Regulatory Expert -- this person should have an experience base at the state and local level with regulatory bodies, enforcement agencies, insuring organizations, and consumer advocacy groups. These tasks would take one person one month of effort. Dr. Zafarullah Chaudhry, Saver Medical Project, Bangladesh, has been mentioned as someone familiar with regulations governing foundations.

Costs

- Air fare, at \$2,600 each	\$ 2,600
- Per diem, 30 days \$98 per day	2,940
- Labor, 30 days at \$296 per day	8,880
- Overhead at 110%	9,768
- Miscellaneous, including in-country transport	1,500
Total	\$ 25,688

- (2) Accreditation Specialist -- this person should have experience at least equivalent to a senior level executive with the Joint Committee on Accreditation in the United States. Some of this person's scope will overlap with that of the legal and regulatory Specialist. These tasks would take one person one month of effort.

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Costs

- Air fare, at \$2,600 each	\$ 2,600
- Per diem, 30 days \$98 per day	2,940
- Labor, 30 days at \$250 per day	7,500
- Overhead at 30%	2,250
- Miscellaneous, including in-country transport	1,500
Total	\$ 16,790

- (3) Clinical Management Specialist -- this person should be experienced in working at the interface between provider organizations, insuring organizations and beneficiaries. This person should be a physician. These tasks would take one person one month of effort.

Actuarial/Auditor Specialist -- this person should be familiar with standards used in other countries, or internationally, if guidelines exist. These tasks would take one person 15 days

Costs

- Air fare, at \$2,600 each	\$ 5,200
- Per diem, 45 days \$98 per day	2,940
- Labor, 45 days at \$298 per day	13,410
- Overhead at 110%	14,751
- Miscellaneous, including in-country transport	2,500
Total	\$ 38,801

- (4) Financial Manager/Capital Market Specialist -- this person should have a background in the financial management of large health systems, either insurance based or managed care systems, and in the development of capital positions for emerging systems or expansion of existing systems. These tasks would take one person one month of effort.

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Costs

- Air fare, at \$2,600 each	\$ 2,600
- Per diem, 30 days \$98 per day	2,940
- Labor, 30 days at \$296 per day	8,880
- Overhead at 110%	9,768
- Miscellaneous, including in-country transport	1,500
Total	\$ 25,688

Grand Total, Managing the Health Care Sector \$106,697

V. Developing an Insurance Scheme for Government Employees (GE)

It would appear that much of this work could build on other work in other areas, in terms of benefit design, assessing risk, estimating revenues and outlays. Synthesizing the work in other areas, development work could be done to design alternative schemes for this group of employees. A number of tasks would also be included:

- review of the current benefits, under the Medical Attendance Rules, and other benefits such as out-of-country surgery, and monthly stipends to cover outpatient pharmaceuticals;
- to translate characteristics of GE population into risk factors for rate determination of benefit package (assuming premiums covered all benefits) such as demographic factors, e.g., age specific death rates, etc.
- to determine from above characteristics, approximate number of inpatient visits, outpatient care, prescriptions, X-ray, and other health services required by the population served;
- to determine credibility and reliability of existing GE and other data bases (PIA, Pak Steel, etc.) for rate and risk determination;
- to assess existing actuarial tables from Pakistan life insurance companies and compare data base with GE;
- to provide descriptive cost data on service utilization/consumption on GE population vs. other insured groups and the general population;
- to determine costs of outpatient services as a covered benefit;
- to review demographic data from the Ministry of Health and the Ministry of Planning and Development, and determine from this some general population, epidemiological and social data indicators (childhood illnesses, family size, drug utilization, hospitalization, service intensity, provider ratios, etc.);
- to project future costs implications of service provisions to GE through the year 2000 against these scenarios:
 - premiums remain static, but costs of benefits increase;
 - premiums increase consistent with costs;

- costs increase with treatment patterns for chronic diseases, but premiums and benefits increases are in line with inflation only;
- labor force increases but premiums and benefits remain the same;
- GE continues with employer contributions only, but employees are given choice to opt out to their insurance plans.
- to project actuarial data from GE and other covered groups to the cost of a benefit package for government employees. This should be done for federal employees, and for provincial employees to the extent possible;
- to determine legal/regulator issues which need to be addressed;
- to interview insurance community leadership and determine requirements for malpractice, liability coverage and reinsurance;
- to determine, investment constraints/barriers for existing insurance companies to expand into health coverage for GE;
- to determine, in collaboration with the actuarial specialist, the composition of a benefit package, including costs for inpatient and outpatient benefits, expensive illness or "catastrophic coverage" benefits (either together or as separate package), and risk management fees.
- to determine best option developing contributory scheme, from both employer and employee side.
- to assess labor requirements necessary to provide comprehensive health services within the GE system;
- to assess management/administrative structure to support clinical service delivery requirements, including staffing plans for demonstration units;
- to assess training needs for management/clinic personnel;
- to meet with professional medical societies and leadership and determine constraints to the use of health insurance for financing care;

- to determine best option for utilization of hospital (i.e., lease/contract with existing GE hospitals, with other hospitals which have excess capacity, etc.
- to determine, if GE beneficiaries given choice, need for specialty care outpatient requirements, including clinics, laboratories, dental and X-ray facilities;
- to determine best option for utilizing physicians (i.e., group practices, group specialty practices, GE physicians vs. other private providers, government hospitals on a contract basis vs private hospitals, etc.
- review evidence and options with GE "focus groups" and modify recommendations accordingly

Time and Personnel

Benefits/Actuarial Specialist -- should have experience in other countries with other groups; an advantage if experience with other Government groups. Tasks should take one or two people 45 days.

Costs

- Air fare, at \$2,600 each	\$ 5,200
- Per diem, 45 days \$98 per day	2,940
- Labor, 45 days at \$298 per day	13,410
- Overhead at 110%	14,751
- Miscellaneous, including in-country transport	2,500
Total	\$ 38,801

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ORGANIZATIONAL STRUCTURE FOR PHASE II WORK

As a series of tasks are underway, there should be one American and one Pakistani who provide intellectual leadership, continuity, and administrative coordination. Thus, the organizational structure for Phase II (from October onward) may resemble something like the below:

U.S. In-Country Coordinator

Pakistani In-Country Coordinator

American Team

Pakistani Team

Tasks

Privatization
of Hospitals
etc.

TABLE 1
Private Health Expenditures

	<u>1975</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>
Outpatient primary care											
Outpatient specialist/ surgery											
Outpatient clinic											
Outpatient Family Planning Other											
Inpatient Service											
Dentists											
Traditional Healers											
Other Therapeutic or preventive											
Pharmaceuticals											

TABLE 2
Government Health Expenditures

1975 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989

Outpatient primary care

Outpatient specialist/
surgery

Outpatient clinic

Outpatient
Family Planning
Other

Inpatient Service

Dentists

Traditional Healers

Other Therapeutic
or preventive

Pharmaceuticals

TABLE 3
Private/Out-of-Pocket Health Expenditures

1975 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989

Outpatient primary care

Outpatient specialist/
surgery

Outpatient clinic

Outpatient
Family Planning
Other

Inpatient Service

Dentists

Traditional Healers

Other Therapeutic
or preventive

Pharmaceuticals

TABLE 4
Sources of Private Hospital Care Revenues

1975 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989

Total Patient Payments

Out-of-Pocket

Private Insurance

Government Insurance

Philanthropy

Other

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TABLE 5
Sources of Public Hospital Revenues

1975 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989

Total Patient Payments

Out-of-Pocket

Government Funds

Other

A.

TABLE 6
Sources of Private Clinics Care Revenues

1975 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989

Total Patient Payments

Out-of-Pocket

Private Insurance

Government Insurance

Philanthropy

Other

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TABLE 7
Sources of Public Clinics Revenues

1975 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989

Total Patient Payments

Out-of-Pocket

Government Funds

Other

TABLE 8
Distribution of Health Revenues for Private Health Care Sector

1975 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989

Total Labor

Total Physicians
(Nurses, Midwives
and Public Health
Nurses)

Paramedics

Other

Equipment

Drugs

Building Crews
Hospitals
Clinics

Overhaul and
Renovation

Research

Medical Education
(by categories
under labor)

Extension Training

Administrative
Expenses included
above

TABLE 9
Distribution of Health Revenues for Public Health Care Sector

1975 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989

Total Labor

Total Physicians
(Nurses, Midwives
and Public Health
Nurses)

Paramedics

Other

Equipment

Drugs

Building Crews
Hospitals
Clinics

Overhaul and
Renovation

Research

Medical Education
(by categories
under labor)

Extension Training

Administrative
Expenses included
above

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TABLE 10
National Economic Indicators

1975 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989

GDP

CPI

Wages (or earnings)*

Wages Per Hour

Index of Industrial
Production

Employment by Industry

Agriculture

Manufacturing

Services

Health

Other

Export

Imports

Economically Active
Population.

Male

Female

*Monies paid to labor

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TABLE 11
Economic Expenditures

1975 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989

Private

 Total

 Consumption

 Investment

Government Expenditures

 Total

 Defense

 Health

 Education

 Social Welfare

 Other

GDP by Sector

 Agriculture

 Manufacturing

 Services

 Health

 Other

Semi-Government

Foreign Aid

 Multilateral

 Bilateral

 Philanthropic

TABLE 12
Real Per Capita Economic Expenditures

1975 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989

Private

 Total

 Consumption

 Investment

Government Expenditures

 Total

 Defense

 Health

 Education

 Social Welfare

 Other

GDP by Sector

 Agriculture

 Manufacturing

 Services

 Health

 Other

Semi-Government

Foreign Aid

 Multilateral

 Bilateral

 Philanthropic

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TABLE 13
Sources of Government Revenues

1975 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989

Indirect

Customs Receipts

Sales Taxes
(can break this
down by type)

Payroll Taxes

Premiums/user fees

Personal Income Tax

Corporate Income Tax

Social/Health Insurance

Interest

Other

TABLE 14
Life Expectancy

1975 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989

At Birth

Male

Female

At One Year

Male

Female

TABLE 15
Death Per 1000 Live Births

1975 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989

At Birth

By Age One

By Age 5

TABLE 16
Age-Specific Death Rates, per 100,000
by Cause/ICD Category (and trends in the various categories)

1975 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989

Infectious and Parasitic
Disease

Malignant Neoplasm

Diseases of the circulatory
system

Diseases of the respiratory
system

Diseases of the digestive
system

Injury and Poisoning

All Causes

Ages: 0-1, 1-15, 16-24, 24-50 51-64, 65-75, over 75

TABLE 17
Miscellaneous Demographic Characteristics

1975 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989

Population

Total

Male

Female

Urban

Rural

Literacy

Birth Rates

91

TABLE 18
Family Size

1975 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989

Distribution of
Family Size

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

.ar'

TABLE 19
Health Manpower per 1000 Population

1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989

Physicians

Employed

Unemployed

Generalists

Specialists

Physician Assistants

Dentists

Nurses

Midwives

Other Specialists/
Assistants

Traditional healers
(hakims/faith healers)

TABLE 20
Private Hospital Staffing and Utilization

1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989

Acute Ward

Physicians per 100 beds

Nurses per 100 beds

Other health personnel
per 100 beds

Beds per 1000 population

Discharges (1000)

Discharges per 1000
population

Average length of stay

Days per capita

Occupancy rate

TABLE 21
Private Hospital Staffing and Utilization

1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989

Chronic Ward

Physicians per 100 beds

Nurses per 100 beds

Other health personnel
per 100 beds

Beds per 1000 population

Discharges (1000)

Discharges per 1000
population

Average length of stay

Days per capita

Occupancy rate

as

TABLE 22
Public Hospital Staffing and Utilization

1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989

Acute Ward

Physicians per 100 beds

Nurses per 100 beds

Other health personnel
per 100 beds

Beds per 1000 population

Discharges (1000)

Discharges per 1000
population

Average length of stay

Days per capita

Occupancy rate

TABLE 23
Public Hospital Staffing and Utilization

1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989

Chronic Ward

Physicians per 100 beds

Nurses per 100 beds

Other health personnel
per 100 beds

Beds per 1000 population

Discharges (1000)

Discharges per 1000
population

Average length of stay

Days per capita

Occupancy rate

TABLE 24
Health Care Price Indices

1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989

Health Care Price or
Input Cost Index

Hospital Price or
Input Cost Index

Physician Care Price or
Input Cost Index

Nursing Price or
Input Cost Index

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DEFINITIONS¹

National Health Expenditure -- consists of:

1. Personal Health Care -- therapeutic goods or services rendered to treat or prevent a specific disease or condition in a specific person;
2. Government Public Health Activities -- spending designed to provide similar goods and services to a general population;
3. Program Administration -- spending for the cost of running government health care programs plus the net cost of private health insurance; and
4. Research and Construction -- noncommercial biomedical research and construction of health care facilities.

From a National Income and Product Accounts perspective, National Health Expenditure equals the sum of household final consumption on medical care and health services, government final consumption on health, government investments in hospitals, dispensaries, etc., and private investments in clinics, laboratories, etc.

Drugs and Medical Sundries -- prescription and non-prescription drugs and "over the counter" products such as topical antiseptics, analgesics, and sanitary napkins. The value of such goods (as well as eyeglasses and appliances) provided to patients in hospitals and nursing homes and those dispensed through health professionals is implicit in spending for those types of services.

Eyeglasses and Appliances -- purchases or rentals of vision products, hearing aids, braces, and other durable medical equipment.

Other Health Professionals -- spending for the services of health professionals, other than physicians and dentists, rendered in establishments of health professionals. Expenditures for the services of all professionals (including physicians and dentists) working under salary for a hospital, nursing home, or other type of health care establishment are reported with expenditures for the services offered by the establishment.

Dentists -- spending for services provided in the offices of doctors

¹ Based on previous work by George J. Schieber, Ph.D.

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of dental surgery or doctors of dental medicine.

Other Personal Health Care -- personal health care expenditures that do not clearly fit into a category of spending or that are for unspecified purposes (e.g. ambulance services, school health).

Nursing Home -- spending in all nonhospital facilities or parts of facilities in which some level of nursing care is provided.

Physician -- a doctor of medicine or osteopathy licensed to practice medicine by appropriate public or private medical authorities.

Self-employed -- practitioners who are sole or part owners of their main practice.

Employed -- practitioners who spend most of their time as salaried employees.

Physician Specialty -- any specific branch of medicine in which a physician may concentrate.

General/Family Practice -- physicians who are General Practitioners or Family Practice Physicians.

Medical Specialists -- includes specialists in internal medicine, pediatrics, allergy, cardiovascular disease, dermatology, gastroenterology, pediatric allergy and pediatric cardiology, and pulmonary disease.

Surgical Specialists -- includes specialists in General Surgery, Neurological Surgery, Obstetrics and Gynecology, Ophthalmology, Orthopedic Surgery, Otolaryngology, Plastic Surgery, Colon and Rectal Surgery, Thoracic Surgery, and Urology.

Other Specialists -- includes all other not listed as General/Family Practice, Medical Specialists, or Surgical Specialists such as Geriatrics, Neurology, Preventive Medicine, Psychiatry, Public Health, Aerospace Medicine, Occupational Medicine Pathology, Physical Medicine and Rehabilitation, and Radiology.

Hospital -- a licensed institution the primary function of which is to provide diagnostic and therapeutic patient services for medical conditions, that has at least six beds, an organized physician staff, and continuous nursing services under the supervision of registered nurses (American Hospital Association Definition).

-- an establishment permanently staffed by at least one physician, that can offer inpatient accommodation, and can provide active medical and nursing care (WHO concept).

General Hospitals -- provide both diagnostic and treatment services for patients with a variety of medical conditions, both surgical and

non-surgical. These hospitals provide medical and nursing care for more than one category of medical discipline (e.g. general medicine, specialized medicine, general surgery, and obstetrics); excluded are hospitals that provide a more limited range of care.

Specialty Hospitals -- provide a particular type of service (e.g. psychiatric, tuberculosis, chronic disease, rehabilitation, maternity, alcohol, narcotics) to the majority of their patients.

Short-term Hospitals -- hospitals in which the average length of stay is less than 30 days.

-- hospitals in which more than half the patients are admitted to units with an average length of stay of less than 30 days.

-- hospitals in which the type of service provided is general maternity; eye, ear, nose, and throat; children's; or osteopathic.

Long-term Hospitals -- those in which the average length of stay is 30 days or more.

-- those in which more than half the patients are admitted to units with an average length of stay of 30 days or more.

-- those in which the main therapeutic services relate to rehabilitation, nursing care, and convalescent care.

Occupancy rate -- the average daily inpatient census divided by the number of hospital beds, or the average percentage of available beds occupied over a specific period.

Outpatient Visits -- visits by patients not lodged in the hospital for medical and dental services.

Admission -- a stay of any continuous period of one night or more in a hospital as an inpatient, whether discharged dead or alive, excepting the period of stay of a well newborn infant.

Hospital Expenditures -- all spending for both inpatient and outpatient hospital care including spending for drugs, supplies, plant, equipment, and salaries. Should exclude expenditures for medical education and research.

Capital Expenditures -- total hospital expenditures less hospital capital expenditures, including expenditure for room, board, salaries, supplies, etc.

Operating Expenditures -- total hospital expenditures less hospital

capital expenditures, including expenditure for room, board, salaries, supplies, etc.

Inpatient Hospital Expenditure -- all hospital expenditures associated with persons admitted to the inpatient service of the hospital for observation, care, diagnosis or treatment.

Physician Expenditures -- expenditures for the services of licensed physicians (including residents) which are provided for the direct benefit of an individual patient. Expenditures for physicians working under a salary for a hospital, nursing home, or other type of health care establishment are reported with expenditures for the service offered by the establishment.

Total Physician Expenditures in Hospitals -- expenditures on services rendered by licensed physicians (including residents) for the benefit of an individual patient treated in a hospital inpatient or outpatient setting, irrespective of the physician's compensation arrangement.

Total Physician Expenditures For Hospital Inpatients -- expenditures on services rendered by licensed physicians (including residents) for the benefit of an individual patient lodged in the hospital, irrespective of the physician's compensation arrangement.

Public Expenditures -- expenditures by Central (Federal), Regional, State, local governments and public Social Insurance schemes, regardless of the sector through which the funds are channeled (e.g. payments from Social Security programs that either indemnify individuals or pay medical care providers directly should be treated as Public). Expenditures by various levels of government should be net of transfers received from other levels.

Private Expenditures -- expenditures from non-governmental sources net of transfers.

Private Health Insurance -- private expenditures for services reimbursed from private health insurance benefits and from Friendly Societies.

Direct Patient Payments -- out-of-pocket expenditures made directly by consumers, which are not offset or reimbursed for through a third party (e.g. Public Expenditure, Private Health Insurance, or Other Private Payments).

Other Private Payments -- unreimbursed expenditures made on behalf of consumers by private philanthropic charities, industrial inplant services, private construction companies, and any other private entity (excluding Private Health Insurance and Direct Patient Payments).

Price or Input Cost Index -- the specific price or input cost index measuring the price for that particular service or the actual costs of inputs (including the practitioners' time) involved in producing

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the service.

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