

# **Applied Research Paper 1**

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## **First Year Literature Review for Applied Research Agenda**

*November 1996*

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Partnerships  
for Health  
Reform

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# Abstract

This first year PHR Applied Research Review has been developed as part of the process to select activities for the Applied Research component of the PHR Project. The document reviews current policy issues in all the core health sector reform areas, which are the concern of the project and relevant to achieving USAID strategic objectives. It also identifies information gaps and other ongoing research work, and proposes potential areas for research under the PHR AR component.

A comprehensive review of all material and literature in the various health reform areas would have been an enormous task, requiring many person-months. A number of reviews of certain areas, however, have recently been completed by agencies such as WHO, World Bank, and other USAID projects. It was decided at the beginning that, to ensure rapid implementation of the AR activities, the PHR AR review would focus on assessing these other external reviews, supplemented by additional research where necessary. The compilation of the document involved preparation of draft sections, which were then reviewed by two meetings of the AR Steering Committee. These meetings were attended by representatives of USAID/Office of Health and senior management of the PHR project to allow for their substantial advice and input. The Steering Committee also consulted with the other USAID strategic objective groups.

This document was compiled in a relatively short period of time, as required under the PHR contract and First Year Workplan, to support selection of first year applied research activities. It therefore should not be regarded as a final or definitive review of all relevant applied research issues. While it is an adequate document upon which to base the first year's activities, it is expected to be revised and modified in the future, as time allows for more substantial effort and as the priorities of the PHR project itself change in coming years. It should thus be viewed as an organic document, which will be improved with time and modified with changing circumstances.

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# Partnerships for Health Reform First Year Literature Review for Applied Research Agenda

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## Acronyms

|               |  |
|---------------|--|
| <b>APED</b>   | Action Program on Essential Drugs                      |
| <b>CDIE</b>   | Center for Development Information and Evaluation      |
| <b>DDM</b>    | Data for Decision Making                               |
| <b>DHS</b>    | Demographic Health Statistic                           |
| <b>DRG</b>    | Diagnosis-Related Groups                               |
| <b>EPI</b>    | Expanded Programme of Immunization                     |
| <b>HEFP</b>   | Health Economics and Financing Program                 |
| <b>HFS</b>    | Health Financing and Sustainability                    |
| <b>HMO</b>    | Health Managed Organizations                           |
| <b>INDRUD</b> | International Networks for Rational Use of Drugs       |
| <b>ISQUA</b>  | International Society for Quality Assurance            |
| <b>LSMS</b>   | Living Standards Measurement Study                     |
| <b>MOH</b>    | Ministry of Health                                     |
| <b>NDP</b>    | National Drug Policies                                 |
| <b>NHA</b>    | National Health Accounts                               |
| <b>NIS</b>    | newly independent states                               |
| <b>ODA</b>    | Overseas Development Agency                            |
| <b>OECD</b>   | Organization for Economic Coordination and Development |
| <b>ORS</b>    | Oral rehydration salts                                 |
| <b>PHR</b>    | Partnerships for Health Reform                         |
| <b>STD</b>    | sexually transmitted disease                           |
| <b>TB</b>     | tuberculosis   |
| <b>USAID</b>  | United States Agency for International Development     |
| <b>WDR</b>    | World Development Report                               |
| <b>WHO</b>    | World Health Organization                              |



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# Executive Summary

This first year literature review has identified current policy issues in all major health sector reform areas of the PHR Project. To accomplish this and save time, external health reform reviews that were already completed by agencies such as WHO and the World Bank were assessed. The resulting review will be revised and enhanced as PHR priorities change and new information becomes available.

The PHR Review focused on three primary topics: health policy and management; health financing; and health services improvement. It identified information gaps, ongoing research, and potential areas for future study. The PHR project has several factors in its favor in undertaking this research, including exceptional access to funding, technical expertise, and intellectual resources.

Political and economic environments are primary factors that influence the success of health reform. Regarding the topic of health policy and management, the international focus to date has primarily been directed towards technical content of reform, with insufficient study to determine the most effective processes for adopting and implementing policy changes.

The current state of institutional reform, management capacity-building, decentralization, infrastructure, and human resources development, as related to health policy and management, was also reviewed. Decentralization is generally promoted as an effective strategy for health reform, but failures have been known to occur. Studies show these failures are often due to inadequate processes. Detailed case studies and a comparative methodology are needed to evaluate both the impact and processes of decentralization and institutional reform.

Investments in human resources and infrastructure also have major impacts on health reform. Research is necessary to evaluate the impact of human resource policies; identify the ratio of human resource costs to costs in different settings; determine how financial incentives can be used to improve quality without compromising commitment to care; and address topics regarding purchase of technical equipment and alternative methods of cost savings.

Generating resources for health services remains a critical problem in developing countries, and three potential sources of funds have been identified: public domestic, private domestic, and foreign donor. The review identified potential domestic options, including new public and private resources and redistribution of existing public resources. Insurance financing and community-level prepayment plans are also methods of overcoming resource limitations in funding. To address concerns in resource allocation and generation, additional studies are needed to examine topics that include the experience of countries that have long sustained high levels of cost recovery; costs of quality improvements related to user fee systems; the experience of various types of direct targeting and means testing for health services; and the overall equity impact of user fees.

Further specific studies regarding insurance financing and community financing were also recommended. In addition, development of the following initiatives were proposed: a priority-setting methodology and related strategies and documentation; tools for assessment of spending pattern equity and efficiency; and a consumer inefficiency/efficiency analysis.

The study identified a need to develop the means to systematically evaluate the effects of individual financing mechanisms upon the health system, and to assess performance of existing systems.

Regarding the subject of health service improvement, the review specifies effective staff training as a critical component to successful health care delivery. Improving quality in health care service includes bettering the competence of health personnel, as well as access, efficiency, and efficacy. To raise quality standards, modern management techniques have been introduced with mostly positive results. The relationships between cost, quality, and financing of services need further study. The review focuses on two topics: relationships between cost and quality, and the effect of financing sources on provider motivation. The review identifies wide gaps in knowledge concerning health care incentives, cost and benefits, and relationships between financing sources and quality.

When discussing pharmaceutical policy and management, it is acknowledged that serious problems exist in many current systems of development, marketing, distribution, and use. Four major areas of research are recommended in the policy arena: health policy vs. industrial policy; regulatory strategies; the role of international agencies; and drug development. Because of USAID's current, active involvement in the field of pharmaceutical management, the study suggests an assessment of the future need for additional research.

The review concludes with an overview of private sector cooperation and initiatives. In many low and middle-income countries, private sector health providers contribute significantly to health and medical services, and in some countries, is most active in the provision of primary health care and distribution of pharmaceuticals. In addition to several specific topics which would benefit from further analysis, the study notes four issues that should be addressed in discussions regarding the private sector: better descriptions of current private sector activities; improved understanding of the operation and behavior of private sector providers; development of policy tools to influence private sector activity; and strengthening interaction and collaboration between public and private sectors.

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# 1.0 Health Policy and Management

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## 1.1 Health Policy

### 1.1.1 Importance

The ultimate objective of the Partnerships for Health Reform (PHR) project is to support and promote health sector reform in developing countries. Reform implies sustained, purposeful, and fundamental changes in the health sector (Berman, 1995). While the PHR project has as one of its primary foci the definition of the objectives of health reform, PHR also seeks to address how health reform alters relationships among actors in the health sector, and distribution of benefits in society. Health policy reform is thus inevitably political (Reich, 1995; Walt, 1995).

The recent failure of health reform in the United States is instructive. By 1993, there was considerable agreement among experts and the public that the U.S. health system was not satisfactory and the underlying problems required major policy changes. President Clinton invested substantial political capital in a high-visibility reform effort and the creation of a comprehensive reform package. Nonetheless, the Clinton reform effort failed. The causes of failure include: opposition by interest groups, ideological differences in the political elite, opposition by the media, and shifting public opinion. The Clinton Administration contributed to the failure through errors in political timing, failures in political strategy, and design of an over-ambitious reform proposal (Blendon et al, 1995). The U.S. experience eloquently illustrates the importance of viewing the health reform process as a political as well as a technical exercise.

Yet, in the international arena, health policy research continues to focus primarily on the technical content of health policy reforms – the “what” rather than the “how” of reform. The processes of adopting and implementing policy changes are largely disregarded. For example, the *World Development Report 1993* is almost entirely focused on how the allocative efficiency of health spending can be improved in developing countries, and only marginally addresses issues of policy adoption and implementation. While noting common problems in the policy process across countries, the report makes no attempt to suggest how its recommendations should be modified according to the political circumstances of a particular country.

The political and economic environments of U.S. Agency for International Development (USAID) client countries create major challenges to efforts at achieving successful health reform. Political environments are unpredictable and often poorly understood, not only by external agencies, but also by domestic policymakers. All types of resources – economic, information, and technical – are usually very limited, while substantial structural problems must also be addressed. Processes of health reform in developing countries are further complicated by the conflicting agendas and objectives of international agencies (Dahlgren, 1994).

### 1.1.2 Review of Key Issues and Current Research

### **1.1.2.1 Reform Experiences in Other Sectors**

The problem of policy failure is not unique to health. In the 1980s, the international donor community, led by the World Bank, pushed a reform agenda of structural adjustment and economic liberalization throughout the developing world. In most cases, however, only partial success was achieved in implementing and sustaining the desired reforms, and in many cases the reformers failed in their efforts (Hussain, 1993). Economic reform was especially unpopular in regions such as Eastern Europe and Africa, where democratization enhanced social expectations and created complex political environments. In response to this limited success, both donors and researchers have sought to understand the factors influencing the effectiveness of economic policy reform. The research has included cross-sectional quantitative analyses and in-depth case studies to explain why economic reform efforts failed or only partially succeeded in particular countries.

This research has led to an increasing awareness of the importance of realistic assessments of country commitment to reform; the necessity of designing the contents and timing of economic reforms in a manner that will maximize political support and reduce opposition; the importance of institutional capacity building for policy change; and the importance of building broad coalitions of support to sustain reform (Haggard and Webb, 1994; Nelson, 1990; Williamson, 1993).

Some researchers have also analyzed the broader strategies adopted by development agencies. As Rondinelli pointed out, development planners have generally adopted a “rationalistic” view of decision-making, in the belief that “complex social problems could be understood through systematic analysis and solved through comprehensive planning” (Hussain, 1993). But there is increasing doubt about the assumptions of rationalistic planning in developing societies. Rondinelli concluded, “The methods of planning and administration that governments in developing countries and international assistance organizations employed have nearly always been inappropriate to the nature of development problems” (Hussain, 1993).

### **1.1.2.2 Reform Experiences in the Health Sector**

Reform efforts in the health sector have not been systematically analyzed from the perspective of policy processes. In general, health economists have underestimated the importance and benefits of case study research, as well as the institutional and political factors behind success and failure in policy reform.

Lack of research on policy processes may contribute to the design of policies that are more likely to fail or produce results contrary to the original objectives. In many instances, high-quality technical research on health policy has produced detailed policy recommendations, but failed to achieve significant policy changes. Examples of limited implementation, despite high quality of research, include USAID-sponsored health financing research in Egypt in the early 1980s, and estimates of the burdens of disease and cost-effective packages in Mexico in the 1990s. In such cases, better understanding of the process might have improved the policy design, and thus made the final results more relevant, or it might have increased recognition that policy implementation was unlikely.

While broad consensus has often existed amongst researchers, national policymakers, and donors regarding problems in the national health sector, disagreement has frequently arisen over the appropriate solutions. The same pattern occurred in the debate over health reform in the United States – substantial agreement on the problems, but sharp disagreement on the solutions.

Moreover, in developing countries, if a health reform is adopted, there are frequent failures in implementing the policy changes. In addition, as frequently occurs in all countries, policies have had unanticipated consequences during implementation. Colombia's health reform, for example, was successfully adopted by the national legislature, but encountered myriad problems in the design and implementation of new institutions necessary to carry out its vision.

International agencies and policy analysts have also failed to understand the connections between the broader political economy and health policy reform. For example, recent work carried out under the Data for Decision Making (DDM) project suggested that one of USAID's non-health global objectives – democratic governance – has significant benefits in terms of improved health status (Govindaraj and Rannan-Eliya, 1994). Long-established democracies do substantially better in terms of child survival and fertility control than non-democracies and communist countries. It is not known whether democratic governance also improves reproductive health, but it is plausible that it does through empowerment of women in developing countries. Yet little work has been done to understand the processes leading to better health in developing country democracies. Given USAID's democratic governance objective, helping new democratic states deliver better health services may have significant benefits by enhancing the social legitimacy and overall sustainability of new political systems. Better understanding of the health policy environments in which new democratic regimes operate in Eastern Europe, Africa, and elsewhere would thus have additional, non-health benefits.

In sum, the dearth of research on policy processes and political factors in health policy represents an important window of opportunity. The Bellagio Conference on “good health at low cost” concluded that “political will” is important in achieving “better health” (Halstead et al., 1985). But since then, little effort has been made to operationalize the concept of “political will,” or what aspects of political will are critical and subject to influence. Literature on the political dynamics of development economics in recent years demonstrates that systematic analysis of policy processes can yield important results, and sophisticated methods can be developed and defended.

### **1.1.2.3 Research on Health Reform Processes**

Research directed at understanding the policy processes in health at both the global and country levels and development of better tools to improve such understanding would help USAID and USAID-assisted countries, and lead to the following benefits:

- ▲ Better design of policy recommendations and reform packages that could improve health and population outcomes; better assessment of the conditions under which national policymakers are likely to support major health sector reforms; and when USAID assistance for such reforms is most likely to be catalytic and beneficial
- ▲ Increased success in the implementation of policy reforms, because of improved political strategies by national decision-makers as well as donors
- ▲ Support for USAID's goal of global leadership, due to better understanding of the global policy process, and thus better design of USAID and PHR efforts to positively influence the global health policy agenda

- ▲ Support for democratization worldwide by assisting policymakers in democratic societies to improve their skills at political management, and strengthen the link between democratic governance and better health

#### 1.1.2.4 Comparative Advantages of PHR for Health Policy Research

USAID and the PHR project have several comparative advantages in health policy research, which underline the importance of a significant effort in the Applied Research agenda on health reform processes.

- ▲ The other international agency capable of undertaking substantial research on this topic—the World Bank – is unlikely to do so for two key reasons: (I) the World Bank is not paying adequate attention to issues of implementation and policy analysis in the health field, due in part to its current emphasis on the World Development Report (WDR) 1993 recommendations, and (ii) it does not have suitable in-house technical expertise in the area of health policy analysis, due in part to its priorities and its presumed mandate not to interfere in domestic politics. USAID’s political mandates are not so restrictive, and it already has a much more explicit agenda in promoting a shift towards political pluralism.
- ▲ The World Health Organization’s (WHO) own review of research priorities has already identified the importance of policy analysis research, but it is unlikely that WHO will have access to adequate research funding or in-house technical expertise in the area of health policy processes.
- ▲ PHR and USAID have a significant comparative advantage in their access to the intellectual resources required for research on policy process. U.S. universities have a much longer history of research and intellectual interest in the analysis of policy processes, and, as a result, U.S. researchers have a considerable intellectual lead in this area. PHR consortium members have direct access to these intellectual resources (e.g., at Harvard University). USAID has also previously invested in this type of research (e.g., the IRIS project, DDM work on political mapping, health, and democracy).
- ▲ Much of the work which is likely to be beneficial at this stage consists of comparative analysis and case study research. The PHR project is likely to be involved in assisting similar types of health sector reform in many countries in all regions of the world. This involvement will make it much easier to conduct comparative research in different country settings.

#### 1.1.3 Proposed Projects for Research

The Applied Research Agenda should consider the comparative advantages and strategic objectives of USAID and PHR in selecting the issues for analysis. The following potential research topics are proposed for priority consideration:

1. **Comparative analysis of health reform processes:** This project could include countries that have failed as well as those that have succeeded in achieving health sector reforms. Analyses would utilize both political economy and policy analysis types of approaches, and determine factors both promoting and obstructing reform. Research could examine

how reformers build broad coalitions of support for reform. Emphasis would be placed on analyzing policy processes in countries that have attempted similar types of health reform, or on groups of countries facing similar policy environments, such as in the New Independent States (NIS).

2. **Comparative analysis of implementation of the WDR 1993 reform packages:** This project would analyze the political, institutional, and social factors affecting the implementation of policy reform packages recommended in WDR 1993, such as burden of disease and cost-effective packages.
3. **Comparative analysis of democracy and child survival, reproductive health, and fertility control:** This project would examine political, social, and institutional mechanisms by which democratic governance leads to better health, child survival, and fertility control. The study would use a case study approach to focus on both established democracies with superior health performances, as well as on newly established democracies undergoing significant health sector reforms. It might also examine the relationship between democracy and reproductive health.
4. **Development of applied research tools:** This project would further the political mapping tool (Reich and Cooper, 1995) to enable policymakers to improve their understanding of their policy environments, and assist them in designing reform strategies that have a good chance at implementation.

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## 1.2 Health Policy and Management: Institutional Reform and Management Capacity-Building/Decentralization

### 1.2.1 Importance

Decentralization is generally recognized as a major strategy of health reform. Most donor agencies, particularly USAID and the World Bank, have encouraged governments to adopt decentralization programs. Decentralization is intended to bring decisions closer to the people who use the services and make local health services more responsive to local conditions and preferences. It should also contribute to achievement of the central goals of health reform: increased access, equity, efficiency, and quality. In addition, some argue that decentralization may strengthen democracy in a country. The general arguments suggest that decentralization will:

- ▲ Achieve equity of and greater access to health services for the poor, because the poor will have a greater voice locally than nationally;
- ▲ Improve efficiency, because local decision-makers can account better for local conditions; and
- ▲ Improve quality, because providers will be accountable to local demands for quality.

There is, however, much evidence that suggests that many processes of decentralization fail to achieve these objectives and, in many cases, produce the opposite results:

- ▲ Local control by elites who are even less responsive to the needs of the poor;

- ▲ Greater opportunities for corruption with less capacity for enforcement and oversight;
- ▲ Officials with fewer management and financial control skills, resulting in less efficiency;
- ▲ Providers with fewer technical skills and less supervision, undermining quality; and
- ▲ Decreased ability to address problems of interpersonal equity.

It is likely that these failures are not due only to the simple fact of decentralization, but also to the adoption of inadequate forms and processes of decentralization. The problem – and a key area of research priority – is to identify the forms and processes of decentralization which result in improved efficiency, access, equity, and quality.

## 1.2.2 Review of Key Issues and Current Research

Although we have types of decentralization that specify the differences of power, responsibility, and authority among deconcentrated, devolved, delegated, and privatized systems (Anne Mills, WHO, 1990), there has been little research into how effective these different forms of decentralization are for achieving health reform goals, and how they affect progress towards improved child survival, reproductive health, and fertility control. A recent WHO project developed a simple comparative methodology and applied it to over 20 countries as an initial attempt to gain insight into decentralization. Preliminary results of these studies, however, suggest that much more detailed and systematic review will be necessary to gain compelling and reliable data. The original study may not be sufficient to capture the difference between effective and ineffective forms of decentralization.

Along with this lack of knowledge about impacts of decentralization, we also know little about the decision-making processes involved in achieving decentralization. This information is important, since many governments have made decentralization a priority policy, but have not been able to implement changes in power because of established bureaucratic and political forces. Since decentralization has often been initiated before other efforts at health reform, it is important to study the processes of policy formulation, adoption, and implementation to gain insight into how health reform policies are made. We often rely on rules of thumb based on the opinion of a few key actors in the policy process, rather than systematic studies that test hypotheses and involve interviews of many stakeholders. No systematic study of the political map, identifying key actors and their positions, power, and strategies, has been done concerning the decisions to decentralize.

Reform of government institutions is also recommended as a means of shifting the role of government from the provider of public services to the regulator of the whole health sector. Reform recommendations involve downsizing of central government offices, upgrading salaries for regulators, changes in management techniques, strengthening of information systems, and adoption of new roles of monitoring and enforcing minimum quality standards and fair market practices. In particular for health reform efforts, it is believed that creating or strengthening the analytical capacity of the Ministry of Health (MOH) will result in more effective guidance of a reform process.

Institutional reform is particularly important if MOHs are to change their roles and functions from their traditional role of financing and operating service provision in public health services to the recommended roles of setting sectoral policy, establishing minimum standards, monitoring access and quality, and regulating the market of both public and private services. While we know that new institutional forms and functions are required, we do not have much

guidance about which structures are most effective for the new roles. For example, to perform new roles in ensuring minimum quality, should government agencies be responsible for licensing and accreditation of private services, or should a semi-private commission of professional associations be formed to establish achievable quality standards and gain more ready compliance of providers? We have few empirical studies of the effectiveness of downsizing of the MOH civil service. We cannot answer the question of how many officials are optimal for different functions. While there is a new management interest in promoting total quality management in public administration, there is no empirical evidence to demonstrate how effective this approach is in achieving improved quality of MOH services.

Again, while we have little knowledge about which institutional structures and processes are effective, we have even less knowledge about the processes of changing institutions. This is a problem of evaluating a key element of the health reform process in countries – one that is often addressed anecdotally rather than systematically.

### 1.2.3 Proposed Projects for Research

Applied research in this area will require detailed case studies that can evaluate both the impact and processes of decentralization and institutional reform. While single case studies can provide some knowledge, they are more important for generating hypotheses to be studied in a comparative methodology for systematic use across several countries. We recommend the development of a comparative methodology, detailed in the following text, based on review of theoretical literature and the few existing empirical cases. This methodology should then be applied to a number of carefully selected cases.

- ▲ **A four-part program for PHR applied research in decentralization and governmental institutional reform as applied to the population and health sectors**
  - △ Develop a preliminary detailed comparative framework of analysis and methodology for systematic studies --a systematic comparative methodology-- which uses the same operational definitions for key concepts of decentralization and institutional reform, and provides a framework for understanding the effects of decentralization on child survival, reproductive health, and fertility control
  - △ Implement review of health systems that have implemented reforms of decentralization and institutional restructuring to assess current knowledge and select specific cases for detailed comparative analysis (e.g., Colombia, Philippines, Sri Lanka, Vietnam, and Morocco)
  - △ Identify initial process countries that are undergoing reform and in which USAID has health financing and reform projects to provide technical assistance in the design and implementation of decentralization and institutional reform (e.g., Egypt, Bolivia, or in conjunction with international bank projects, as in El Salvador); these countries could use lessons learned from the “implemented” systems
  - △ Apply comparative research methodology to the “implemented” systems and establish a common baseline in the “initial process” countries; this study, like the comparative applied research of the CDIE Sustainability Studies, would produce

specific recommendations for policy reform in decentralization, and institutional reform in the form of analytical reviews and checklists of policy and project evaluation guidelines

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## 1.3 Health Policy and Management: Infrastructure and Human Resource Development

### 1.3.1 Importance

Human resource policies and infrastructure investments are important to the health sector for a number of reasons:

1. Health care is a very labor intensive area in which salary costs represent a high proportion of total costs. It is not unusual for employment costs to exceed 50 percent of the total health budget.
2. Salary costs are usually politically sensitive, and are therefore protected more than other expenditure items. This fact becomes clear as MOH budgets and expenditures are shrinking, yet labor costs tend to remain constant.
3. The time and expense needed to train and retain qualified health care providers makes human capital difficult to develop.
4. Investments in infrastructure have important implications for recurrent budgets.
5. There is usually a gap between the need and the demand for large or expensive infrastructure investments. Influential consumers (urban residents, the politically empowered, upper and middle-class citizens, some health care providers) can inflate the demand for high-end, expensive medical care when more immediate needs exist for preventive and primary care in poor populations.

### 1.3.2 Review of Key Issues and Current Research – Human Resources

▲ Decentralization tools

Decentralization is an important policy direction gaining momentum in developing countries. It is not clear, however, that the human resources at the lower levels of the health sector are available to support the move towards decentralization. Lack of adequate planning and management infrastructures in many countries make it difficult for the power transfer to take place (Mills, 1991). Additionally, decentralization often requires that health managers acquire skills, which requires training. Skilled health personnel may also resist transfer to peripheral areas.

▲ Balancing employment expenditures with other costs

An important issue for policymakers is the determination of the ideal balance between labor and other expenditures in the health sector. Research is needed to identify ratios appropriate for different settings and the effectiveness of different expenditure streams.

- ▲ Staffing standards and skill mix

The ratio of physicians to the overall population is very unequal between countries (Mosberg, 1992). Moreover, distribution of physicians within countries is generally unbalanced. In many countries, staffing standards are unrelated to actual staffing patterns and based on traditional roles and practice. Planning is not based on a rational determination of the skill mix necessary under actual or projected case load at the facility level (Sethi and Schuler, 1989). There is a need to develop staffing standards on a workload basis, and to explore opportunities for changes in skill mix. This work can build on a substantial body of research and development information in developed countries.

- ▲ Financial incentives and performance

While financial incentives are widely used in private organizations and sectors other than health, little research is available on incentives in public sector health structures (Sethi and Schuler, 1989). Research is needed to explore how financial incentives can be used to improve quality and output without causing health care decisions to be based on the financial advantage of the health worker.

- ▲ Contracting services

Contracting health services to the private sector is a policy that is frequently recommended, but evidence of its effectiveness is lacking. Questions remain about appropriate standards to evaluate effectiveness and the mix of skills needed to manage contracts at different levels (McPake and Hongoro, 1995). Evaluation of contracting experiences and the dissemination of lessons learned are necessary.

- ▲ Labor movement between public and private sectors

The private sector in health care delivery has been growing in developing countries. With this growth comes issues concerning the management of personnel movement between the two sectors (Berman and Rannan-Eliya, 1993). While this issue is not a major concern yet, there is a need to examine the relationship between the two sectors.

### 1.3.3 Review of Key Issues and Current Research – Health Care Infrastructure

- ▲ *Determining the capability and capacity of hospitals and clinics to support and maintain biomedical equipment*

Biomedical equipment is often given a high priority for acquisition by developing country health facilities. Whether provided by donors or procured with scarce capital funds, this equipment may in fact prove to be a major drain on operating budgets, and could result in a reduction in quality of care levels. Not only are operating and maintenance costs for these types of equipment high, but replacement costs at the end of its useful life are high as well. A methodology for judging the financial capacity of hospitals to support this equipment was developed under the Health Financing and Sustainability (HFS) project. This methodology should be field-tested and further refined. In general, the maintenance of equipment and infrastructure at hospitals is underfunded, and even when maintenance budgets are well-funded, funds are often diverted from maintenance to other areas

(Barnum and Kutzin, 1993). Cost-effectiveness studies should be initiated to determine the overall effect of the acquisition and maintenance of biomedical equipment on patient well-being, compared to alternative uses of capital and operating funds.

▲ *Determining the most effective and efficient methods for adjusting hospital bed capacity*

Many countries, particularly those in Eastern Europe, have been faced with the necessity of reducing surplus hospital capacity. Although management specialists predict that the closure of entire hospitals results in more cost savings than the reduction of a similar number of beds across multiple facilities, evidence confirming these savings is lacking. Research should be conducted across several national or regional health care systems comparing the cost savings of alternative methods (and if possible, the effects on quality of care), including closing entire facilities, partial reduction in multiple facility capacity, and conversion to ambulatory care.

Other countries, particularly in Africa, are faced with an impending increase in the demand for health services related to patterns of population growth (Abeillé and Lantran, 1993). In these countries, there is a strong need for a rational methodology of determining the pattern of new investments and required mix of inputs to construct facilities and train new health personnel.

### **1.3.4 Proposed Projects for Research**

1. Topics related to decentralization and human resource development.
2. Development of mechanisms and processes for decentralization that can match current and future realities in the management of staff resources.
3. Research mechanisms for creating, implementing, and evaluating the impact of human resource policies.
4. Development of tools to address skill levels, organizational structure, hierarchical versus democratic relationships, personal development, and individual motivation.
5. Research to identify the ratio of human resource costs to other costs in different settings, and balance expenditures on employment with other costs. Also, there is a need to develop staffing standards and a rational determination of the appropriate mix of skills, based on caseload and case mix.
6. Research to determine how financial incentives can be used to improve quality and output without compromising the health worker's commitment to the best possible care.
7. An evaluation of experiences in contracting health services, and the dissemination of lessons learned.
8. Field-testing the methodology developed under HFS to assess clinic and hospital capacities and capabilities to purchase and maintain technical and biomedical equipment, and developing guidelines to govern future purchases.

9. Research should be conducted across several national or regional health care systems comparing the cost savings and, if possible, effects on quality of care of alternative methods, that include closing entire facilities, partially reducing multiple facility capacity, and converting to ambulatory care.



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## 2.0 Health Financing

### 2.1 Health Financing: Resource Generation

#### 2.1.1 Importance

The most vexing problem for low and middle-income nations is resource generation for health services. There are strong competing demands for limited general revenues, and, even if current resources for health are spent efficiently (see Section 3.0), more resources would still be needed. Resources for child survival, reproductive health, fertility control, and HIV/AIDS must be allocated from the total resources flowing into the health sector. To the extent that overall resources available to society and to governments are limited, resources for achieving USAID's strategic objectives will also be constrained.

There are three potential sources of funds for the health sector in most developing countries: public domestic, private domestic, and foreign donor. Many poor countries, especially in Africa, rely to a significant degree on donor funds in this sector, but recent analysis indicate its rate of growth for donor funds is slowing. Moreover, there are negative, long-term implications for sustainability due to overdependence on donor funds. With limited potential for new health investments from donor sources, government has to look domestically for resources. Available options include:

- I) New public resources. These can be achieved by new taxes that are either earmarked for health or general revenue. Another possibility would be economic growth, eliminating the need for higher taxes.
- ii) Redistribution of existing public resources. This can be achieved by increasing the health budget by decreasing other sector budgets. In practice, this is difficult to achieve.
- iii) New private resources. This can be achieved through patient payments (i.e., cost recovery), collection of funds through insurance mechanisms, or community financing methods.

Generating additional resources for the health sector is probably the most pressing policy issue facing MOHs in the developing world, and is one of the most significant issues to be confronted by USAID health sector strategic objectives. In addition to the political implications of decisions about revenue generation, policymakers are faced with the task of selecting mechanisms of resource mobilization, which are effective in increasing total available resources, as well as considering the implications for equity and efficiency. Applied research conducted under HFS and other projects has helped many countries in making decisions and evaluating the implications of policies.

#### 2.1.2 Review of Key Issues and Current Research

There are four broad sets of issues related to resource generation research: (I) systemic issues, (ii) user fees, (iii) insurance financing, and (iv) community financing.

### 2.1.2.1 Systemic Issues

Using different methods to generate health revenue produces winners and losers, both in terms of use of services provided and in the party who shoulders the financial burden. Future research is necessary to develop and refine tools for the assessment of equity of use issues as related to new and existing revenue generation. Research should focus on vulnerable and marginalized groups (Bitran, 1995).

### 2.1.2.2 User fees

National user fees, as opposed to local or project-based fee systems, are the most widely discussed reform in health care financing policy in developing countries. This is a debate that has been largely shaped by international donors and researchers in developed countries. In this context, PHR research is likely to have a greater impact if it results in significant new findings. Despite the importance of the issue, many empirical questions regarding user fees remain unanswered, and there remain several problems in implementation which clearly would benefit from additional research and knowledge generation. The major policy questions in this area relate to determining whether user fee systems should be introduced, and, if so, how the effort would proceed.

1. **Should user fees be introduced?** Some authors suggest that the policy debate has shifted from whether user fees should be introduced, to when and how (Dor and van der Gaag, 1988; WHO, 1994). Recent research and reviews, however, suggest that the general question remains unresolved (Gilson et al., 1995). Answers depend on specific context and on resolution of the following issues.
2. **Can user fees raise substantial additional resources for health?** In general, recent conclusions have been negative. Initial expectations by the World Bank (Akin et al., 1987) assumed that up to 20 percent of MOH recurrent costs could be recovered through user fees, and recent discussions have even suggested goals of 40 percent (Shaw and Griffin, 1995). Sustained levels of cost recovery in Africa rarely reached more than 7 percent of total MOH recurrent costs by year-end 1994 (Nolan et al., 1995; Creese and Kutzin, 1995). The few exceptions, such as Zaire, Ethiopia, and Rwanda (Shaw and Griffin, 1995), have little relevance to other countries. There are several examples of individual projects or community-based programs raising higher amounts, but these have never been replicated at the national level, suggesting either lack of generality, or the requirement of considerable time to adapt local schemes to country situations (Litvack and Bodart, 1993; Bamako Initiative reports, UNICEF). The only other instances of high and sustained cost recovery through user fees (i.e., China, Thailand, and Vietnam) have rarely been discussed intensively in the debate (e.g., Creese and Kutzin, 1995; Shaw and Griffin, 1995). This appears to be because of a focus on the part of donors and WHO on sub-Saharan Africa, and partly because of much less familiarity with the Chinese/Thai situations. China's very low price of user fees (in PPP dollars and US \$) and significant contribution of drug profits in cost recovery are factors behind its unusual success, but the significance of these factors to experience in other countries has not been studied.
3. **Impact of user fees on equity.** Initial policy documents from the World Bank in the late 1980s considered the equity impact of user fees insignificant. The strength of these declarations were largely posited on earlier empirical analyses of household demand for health services using econometric analysis, which suggested that price and income elasticity of demand was low for all groups, including the poor. Although findings are still

being published, consensus in the literature has shifted to accepting that price elasticities of demand are higher for the poor, and user fees tend to affect the poor more in terms of reduced utilization (Gertler and van der Gaag, 1990). These econometric studies are supplemented by several cross-sectional analyses from around the world, which show significant reductions in utilization following user fee introduction.

Once it was accepted that user fees will have a disproportionate effect on the poor, questions for policymakers have shifted toward issues related to targeting user fees for public services, or for services used predominantly by the poor. While recent experience of targeting by using means testing and exemptions has been favorable, the general conclusion has been that targeting by direct identification of eligible individuals has not been particularly successful to date, and administrative costs and requirements are significant (Willis, 1993; McPake et al., 1992). This conclusion refers only to health services; another recent review of social programs in Latin America concluded that administrative costs need not be high, and observed administrative costs were not correlated with the targeting system used (Grosh, 1994). Several reviews have identified improvements in targeting and exemption methods as high priorities (Bitran, 1995; Creese et al., 1995; Gilson et al., 1995). Willis and Leighton (1995) note that the administrative and information constraints in Africa may be particularly great. Technical assistance (TA) and research are necessary to document and evaluate existing exemption systems and help develop and field-test systems where needed (Bitran 1995, McPake 1995, Willis 1994).

Little has been said about the merits or potential role of targeting based on user characteristics (e.g., preference for higher quality, geographical residence), especially in the context of a higher quality private sector. This is a major lacuna in the debate, as other studies indicate that countries with good pro-poor targeting of public health spending tend to have pluralistic health systems, in which the wealthier self-select themselves out of the public system (Hammer and Berman, 1995), or Latin American countries, where formal sector employees are covered by social insurance systems, instead of by direct public spending (Grosh, 1994). Few studies have examined the overall equity impact of user fees in a systematic fashion. There have been even fewer studies examining the other potential mechanism to mitigate the equity impact of user fees, which is to allocate the revenues in favor of the poor, or to improve quality (Creese et al., 1995; Gilson et al. 1995). In addition, there is considerable suspicion, although not objectively examined, that user fees in many cases have resulted in reduced allocations to health by finance ministries, and thus have a net negative impact.

4. **Impact of user fees on quality.** Quality issues are central to debates about user fees. There is a consensus that quality improvements at public facilities will increase utilization, and that this may at times benefit the poor most, even counteracting the impact of user fees (McPake, 1993; Litvack et al., 1993). User fees, it is often argued, can be used to pay for quality improvements, especially by supplying non-salary inputs (e.g., drugs, maintenance). The Bamako Initiative has been associated with several examples of this (McPake et al., 1993), but there is no experience of it happening on a large scale (Creese, 1991). There has been much discussion about ensuring that user fees are retained by facilities. Researchers generally agree that there are advantages if the increased revenues are directed to quality improvements. Some of the more enthusiastic supporters of user fee systems argue that funds can pay for the necessary quality changes required to counteract the negative impact on utilization (Shaw et al., 1995). There has been only one study, however, where it has been possible to test this hypothesis -- the USAID-funded

HFS project in Niger. In this study, quality improvements costed more than the net resources generated through user fees (Diop et al., 1995; Wouters, 1995). While it remains doubtful whether user fees can pay for sufficiently offsetting changes in quality, it is clearly moot whether such a policy would work in areas more densely populated and economically developed than Niger, or outside of West Africa. Future research should focus on the costs of quality improvements and further exploration of the separate effects of quality improvement on utilization (Wouters, et al., 1994, Bitran, 1995, McPake, 1995).

5. **Impact of user fees on supply.** Where user fees are linked to the pay or compensation of providers, there is clearly a possibility of incentive effects. Evidence suggests that providers will tend to oversupply rather than limit their supplies, because of the burden of fees on patients. In two of the three Asian countries which have significant cost recovery in public facilities (i.e., China and South Korea), the negative impact of these incentive effects are a major policy concern (Bumgarner, 1992). This issue has not been discussed elsewhere, largely because cost-recovery mechanisms elsewhere have not been particularly substantial.
6. **Impact of user fees on frivolous use.** Possible efficiency gains from user fees are discouraging frivolous use and encouraging more appropriate use of primary contact and referral facilities through systems of graduated fees (Shaw et al., 1995). There are a number of well-planned systems of “cascading” charges in several countries (e.g., Kenya, Namibia, Zimbabwe), but there has been no systematic evaluation of how effective these systems are in practice (Creese et al., 1995).

The literature review reveals no study that demonstrates a reduction in frivolous use through user fees, while there are several examples of user fees reducing use of essential services which have remained free, such as sexually transmitted disease (STD) or tuberculosis (TB) treatment. In the developing country health systems where user fees are a policy issue, overall per capita utilization of modern health services is almost always lower than in developed countries or other developing countries with good health indicators; studies, however, do not explore this distinction. This suggests that a major policy objective should be to persuade people to use health services more, and not less. Health transitions and medical anthropology literature support the theory that healthier populations tend to be different because of their tendencies to seek medical attention more rapidly and frequently when ill than other populations (Caldwell et al., 1989; Ohnuki-Tierney, 1984).

### 2.1.2.3 Insurance financing

Increasing the coverage of health services through insurance is a distinctive social goal (Ron, 1993), and can provide for greater economic efficiency by pooling risks. For individuals and households, insurance protects against fluctuations in income. At the community level, insurance schemes support community participation in the management of health services. On a larger scale, combinations of public finance and private provision of health care encourage the development of the private sector (Shaw and Ainsworth, 1995). Compulsory national health insurance avoids the problem of adverse selection, which can lead to market failure when individuals with the highest risk self-select into insurance programs.

Health insurance is important both as a financing mechanism and a means to increase coverage in the health sector. For financing, insurance provides sources of funds through premiums, earmarked taxes, deductibles, and copayments which are unlikely to be diverted outside of the health sector. A combination of financing sources can minimize political resistance to insurance programs that have significant coverage of national populations (WHO, 1993).

#### 2.1.2.4 Types of Insurance

Akin, et al. (1987) suggest the following categories of health insurance: (1) government-sponsored social insurance; (2) employer insurance plans, providing health care either directly or through contracted providers; (3) capitation, including health management organizations (HMOs) and community-level prepayment plans; and (4) private insurance to cover health costs. In two research papers, LaForgia and Griffin (1993a, 1993b) have reviewed case studies of health insurance in 14 developing countries; they differentiate between community-based programs and other types of capitated pre-payment plans, as well as between social security programs and other means to achieve national health insurance.

This review focuses on two major categories of health insurance: social insurance programs, or those supported by national governments (which may or may not have the goal of universal coverage); and community-level prepayment plans. Additionally, the review discusses issues pertinent to both of these types of insurance, including moral hazard and the composition of benefits provided.

1. **Social insurance programs.** In most developing countries, health insurance programs with a national scope have achieved only limited coverage. In 1987, only an estimated fifteen percent of the developing world's population (excluding China) participated in a health insurance plan, compared to 80-100 percent in industrialized countries (LaForgia and Griffin, 1993a). In most Latin American countries, health insurance is offered to formal sector workers as part of a package of social security benefits. Brazil, Chile, and Costa Rica have realized coverage rates of more than 85 percent of their populations by combining formal sector insurance with a safety net offering insurance options to poorer and rural people (Akin et al., 1987). But in 12 of 20 Latin American countries, less than half of the population is covered (LaForgia and Griffin, 1993a).

Several Asian countries have introduced compulsory national insurance, with a combination of public and private provision, and recently achieved very high coverage rates. Korea has nearly universal coverage, realized by first mandating employer-based coverage, and then establishing regional insurance systems for small firms, farmers, and the self-employed (Yu and Anderson, 1996). Taiwan implemented national health insurance in 1995, with 93 percent coverage (Yue-Chune, 1996). In these countries, high coverage has been facilitated and encouraged by a well-developed industrial labor force, social expectations, and increasing medical costs.

In Africa, social health insurance is limited. A survey of 37 African countries (Nolan and Turbat, 1993) determined that only 14 had formal insurance systems in place. The highest coverage rates were found in Burundi (15 percent), Senegal (15 percent), and Kenya (an estimated 25 percent). Nonetheless, in the 1990s, several African countries, including Ghana, Nigeria, and Zimbabwe, considered the implementation of national health insurance (WHO, 1993).

▲ Equity and efficiency

A major issue related to social insurance programs is the feasibility of implementing national programs, or of expanding or reforming existing systems. In general, the effect of social insurance programs on equity and efficiency in the health sector is largely unknown, and likely to vary among regions and countries (LaForgia and Griffin, 1993a). There are serious concerns about the equity impact of some programs (Bachmann, 1994). A historical analysis of social security schemes in Latin America (Mesa-Lago, 1986) found that, in most countries, the insured are disproportionately from the urban, wage-earning sector – generally the wealthiest social group.

Vogel (1990) found that proposals for national health insurance in African countries had negative implications for equity. Even where social insurance covers a high percentage of the population, there can be equity concerns. In Korea, high copayments, ranging from 41 percent to 65 percent for different levels of care, mean that the insured poor may still encounter financial barriers to access (Barnum and Kutzin, 1993). Similarly, health insurance in China disproportionately benefits the urban and relatively wealthy segments of the population. Social insurance programs in some countries, including Ecuador and Mexico, specifically target rural, agrarian populations, but not enough is known about the effectiveness of these programs in encouraging equity or use of health services (LaForgia and Griffin, 1993a and 1993b). There is a need to develop methodologies for evaluating the impact of social health insurance programs on the use of health services and on health sector equity and efficiency.

▲ Coordination with Social Security

A related issue, particularly in Latin America, is coordination between MOHs and large social security organizations. Social security institutes often run their own system of health care, and the division of responsibilities for financing and delivery of care is not always clear (WHO, 1993). Panama and Costa Rica have experimented by combining the responsibilities of these institutions, but some bureaucratic divisions and problems remain (LaForgia and Griffin, 1993b).

▲ Controlling Costs

In developing and formerly socialist countries where social insurance is likely to expand, there is a strong need for effective approaches to controlling costs. Administrative costs are about five percent of total program costs in western Europe (Bachmann, 1994), but considerably higher in Latin America (Mesa-Lago, 1986) and Africa. In Mali in the mid-1980s, administrative costs were estimated to be 50 percent of total costs (Shaw and Ainsworth, 1995; WHO, 1993). As a percentage of program costs in general, administrative costs in developing countries are twice those in industrialized countries (LaForgia and Griffin, 1993a).

There are upward pressures on costs inherent in social insurance programs. In Brazil in the 1970s, patients paid none of the costs of care directly, and providers, under a fee-for-service reimbursement system, had no incentives to cut costs. Health expenditures increased by more than 20 percent annually in the 1970s, and public sector health expenditures as a share of GDP rose from 3.7 percent in 1975 to 5.6 percent in 1982 (Barnum and Kutzin, 1993). In China, 100 percent third-party reimbursement has led to cost escalation. In Korea, health care costs rose at twice the rate of inflation in the 1980s,

following the implementation of compulsory national health insurance (LaForgia and Griffin, 1993b). In sub-Saharan Africa, administrative costs are high due to the expense of collecting premiums and policing claims in economies that are not highly monetized. Credit is expensive, and the reinsurance market is not well developed (Shaw and Ainsworth, 1995).

▲ Actuarial cost models of expenditures under insurance programs

One of the major issues confronting designers and managers of social insurance programs is the cost of program services. The approach used in practice in developed countries is actuarially based, but most developing countries lack the actuarial capacity to develop their own estimates. In most countries where insurance programs are being introduced or reformed, there is a need for an actuarial-based cost model to assist in calculating likely expenditure commitments.

▲ Reform of enterprise-based health care in transition economies

The formerly socialist economies of Eastern Europe and Asia are attempting to adapt health systems that previously offered free but inefficient health care into a rationalized service delivery system. Social health insurance, with some private provision of care, plays an important role in this transition – complicated by the embryonic nature of the private sector and the fact that people are used to comprehensive free care (Sheiman, 1994). Often, privatization of state enterprises cannot move forward because there is no safety net for discharged workers and their families. The establishment of insurance and social welfare programs becomes a prerequisite for the reform of state enterprises.

China in particular has experimented with new approaches. Key features of the experiments include cost-sharing through the use of medical saving accounts; copayments and deductibles related to income; hospital-based HMOs; and prospective, packaged payment rates for providers.

2. **Community-level prepayment plans.** Some Asian countries, such as Korea and Taiwan, have extended mandatory social insurance to cover rural agrarian and self-employed populations (Yu and Anderson, 1992; Yue-Chune, 1996). In most developing countries, social insurance is not well-suited for coverage of rural populations, unless it is funded by general tax revenues. There is a need for an alternative insurance approach, particularly for Africa (Arhin, 1994; Korte et al., 1992). The Bamako Initiative has shown that prepayment plans financed at the community level are a viable alternative, with documented experiences in Thailand, Indonesia, China, Niger, Zaire, Guinea-Bissau, and other African countries (Akin et al., 1987; McPake et al., 1992; Diop et al., 1995; LaForgia and Griffin, 1993b).

In a review of insurance in 15 countries, LaForgia and Griffin (1993a) summarize the operational factors which contribute to the success of rural risk-sharing and community financing programs: (1) affordable premiums, with collection during a season when money is available; (2) corresponding quality improvements; (3) programs based on traditional risk-sharing mechanisms; (4) adequate infrastructure and provider network; and (5) a marketing campaign to inform consumers and communities about the program.

There is a need to summarize the literature on community financing and assemble the data to ascertain where community financing is viable and how it works. Very little is known

about the impact of community prepayment plans on rates; the extent to which community financing programs in different settings must be subsidized; or prospects for long-term sustainability for these plans.

#### **2.1.2.5 Moral hazard and other consumer incentives related to health insurance**

As countries look to health insurance as a source of health financing, it is important to understand the incentives for both consumers and providers of care. Moral hazard results in overconsumption of health care by the insured because they do not pay the full cost of additional health care. While there is evidence that moral hazard does exist, its extent under different types of insurance is not well known (Newhouse, 1993, Shaw and Ainsworth, 1995). High levels of copayments in Korea and Taiwan may have a negative impact on equity (Yu and Anderson, 1992). In general, the effects of different levels of copayments, premiums, and deductibles on the use of health services, whether necessary or not, is a priority research topic.

#### **2.1.2.6 The composition of the benefits package**

Patterns of care under national health insurance can be inefficient when oriented towards hospitals and specialized care (Bachmann, 1994). To the extent that social insurance is subsidized, it should cover cost-effective preventive and basic curative health services, particularly those services with positive externalities, such as family planning and the treatment of STDs (Akin et al., 1987). There is very little documentation concerning the appropriate composition of a health insurance benefits package in different settings.

#### **2.1.2.7 PHR Strengths**

Health insurance is an area in which PHR consortium members have considerable expertise. Abt Associates has been extensively involved in social insurance reform in Eastern Europe through its NIS projects. Abt also has experience working with insurance schemes through the previous HFS project (LaForgia and Griffin, 1993a). The DDM project is evaluating the social insurance program in Egypt. William Hsiao was the U.S. Chief Actuary for Health Programs of the U.S. government and has been closely involved with the Medicare program and national health insurance proposals. He and his team evaluated and/or designed social insurance programs in several nations. Joseph Newhouse led the RAND health insurance experiment team, and is currently directing a project in Palestine. Harvard University has been closely involved with the evaluation of community financing. Together, the PHR consortium partners possess unrivaled experience in the area of social insurance design – experience which is not available to any other bilateral donor.

### **2.1.3 Proposed Projects for Research**

The Applied Research Agenda should consider the comparative advantages and strategic objectives of USAID and PHR in selecting the issues for analysis. The following potential research topics are proposed for priority consideration.

#### **2.1.3.1 Systemic issues**

1. **Development of tools for equity assessment as related to new and existing revenue generation mechanisms.** (The development and testing of equity assessment tools cheaper and faster than representative household surveys). The tools should allow governments to assess the equity of access and financial burden of alternative financing mechanisms and track changes over a period of time.

### 2.1.3.2

#### User fees

1. **A comparative study examining the experience of countries which have sustained high levels of cost recovery over long periods of time:** This refers to conscious national policy, as opposed to situations where facilities have been left to fend for themselves due to collapse of central MOH funding channels. Research should stress countries other than those normally studied by WHO and World Bank, and not as familiar to USAID audiences, such as China, Thailand, Vietnam, and Ethiopia. The study would examine the structure of cost recovery mechanisms, impact on equity, reasons for social acceptability, overall level of prices in comparative terms, and role of drug sales in the generation of user fees.
2. **A study to determine the costs of quality improvements related to user fee systems,** and determine whether it is possible for necessary quality improvements to pay for themselves in more favorable circumstances than Niger. A project might involve analysis of existing datasets or evaluation of a field experiment.
3. **A comparative study examining the experience of different types of direct targeting and means testing for health services, or applied research to develop suitable mechanisms:** The focus would be on countries with limited administrative capabilities and personal information systems, such as Africa, and systems that can operate with low administrative costs. Successful mechanisms in existence in other regions should be examined.
4. **A comparative study examining the role and effectiveness of characteristic targeting where individuals self-select the use of fee-paying private sector services:** Selected case study countries might not be known for their user fee systems or explicit means testing, but may have the most progressive targeting of public health subsidies.
5. **Studies examining the overall equity impact of user fees:** This would require going beyond assessments of patients visiting facilities and should take a broader view of the overall social impact and fiscal incidence of charges and other private spending.

### 2.1.3.3

#### Insurance financing

Development of decision criteria related to the reform of existing social insurance programs for countries considering social insurance as a health financing mechanism. Criteria and associated guidelines would form a toolbox for policymakers considering the suitability of social insurance under varying social, economic, political, and institutional parameters. They would assist in the appropriate design of social insurance systems that would cover as many people as possible while being financially sustainable and administratively feasible. Methodologies to evaluate the impact of existing programs on equity and efficiency to assist policymakers with reform decisions are also a priority.

Comparative evaluation of recently reformed social insurance systems in three or four countries in Eastern Europe, Latin America, and Asia. The objective would be to compare characteristics among insurance plans and providers, including benefits design, enrollment and tax collection, actuarial cost and financing, payments to providers, and contracting mechanisms. From this review, lessons would be drawn for the design of social insurance programs in other low and middle-income countries.

Quantitative evaluation of ongoing pilot experiments in China: This would be an evaluation of the impact of different benefits structures on demand, and the impact of prospective, fixed payments on provider behaviors (including cost containment, cost shifting, risk selection, quality, and efficiency). The evaluation could take advantage of variations on different experiments currently under way in China

Evaluation of other local insurance-based initiatives to solve urban health financing problems in transition economies, such as hospital-based HMOs in southern China. This evaluation would permit an analysis of the feasibility and adaptability of such experiments to other transition states, such as Eastern Europe (in light of local economics and political conditions).

Empirical quantitative analysis of moral hazard and other consumer incentives related to health insurance. Examine examples in different countries for which there are data, and consider both social and private insurance schemes.

Development of tools to assist in the determination of the appropriate package of benefits. Countries will need assistance in deciding which services should be covered under insurance for both social insurance programs and systems of community financing. The development of methodologies for costing the expense and effectiveness of different services is a priority.

#### **2.1.3.4 Community financing**

Evaluation of existing community financing schemes using comparative case studies. Key elements of the evaluation would include benefit design and its impact on demand, payments to providers, risk pooling, and management.

Intervention study of community-based financing schemes, varying the sources of financing, management, risk pooling, benefit design, and payment for providers, depending on local conditions. A related question concerns the integration of community-level insurance programs with other financing mechanisms and with national referral systems. Currently, China is experimenting with different types of community financing models, which may have considerable relevance to other low-income rural populations. After evaluating these models, it would be useful and informative to do an intervention study in other countries.

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## 2.2 Health Financing: Resource Allocation

### 2.2.1 Importance

Some form of rationing or prioritization of resources in the health sector exists in practically every country. Even the United States excludes portions of the population from government insurance programs, while Canada limits procedures. The rules for prioritization, who or what process makes the decisions, and what tools are used (if any) differ widely. The need for rationalization of resource use will exist as long as the demand for health care is larger than available of resources.

The gap between demand and resources has steadily increased globally, fueled in part by the successes of health care systems and interventions. As countries go through the epidemiological transition, their populations age, and demand for health care increases. Furthermore, demand for health care resources increases with the development of economies (World Bank 1993). Advances in medical technology (e.g., pharmaceuticals, diagnosis, surgery) have also resulted in increases in expenditures (Ham, 1995).

To achieve more equitable and efficient use of health resources, improvements must be made in the resource defining decision-making process. While various approaches have been encouraged for promoting health at a reasonable cost, such as WHO's Alma-Ata declaration "Health for All," the UNICEF-GOBI-FFF program (Cash et al., 1987), or the more selective strategy of improving primary health care (Walsh and Warren, 1979), details are fundamentally lacking as to what interventions would result in maximizing the amount of health gained per resources spent.

The concept of value for money becomes even more important as scarce health funds are far too often spent on interventions with limited health gains at a high cost. Furthermore, health intervention prioritization becomes increasingly more complex as countries begin to make large gains in reducing the burden of childhood illnesses with interventions such as the Expanded Programme of Immunization (EPI).

Another important element of optimal resource use that has received even less attention than prioritization is consumer use efficiency. Consumers represent the most important players in the maintenance of their own health. A review of literature on this topic documents what is known about four kinds of consumer efficiency and outlines some research efforts that can be undertaken to measure inefficiencies and help identify policy answers.

### 2.2.2 Review of Key Issues and Current Research

**Priority setting methodology.** After release of the World Bank's *1993 World Development Report*, there was an explosion of interest in using the DALY-based concept for improving the resource allocation decision process. In fact, burdens of disease and/or cost-effectiveness studies have been carried out in more than 20 countries to date (Bobadilla and Cowley 1995). These studies have already begun to influence how multilateral and local government funds are spent. Experience with the current approach—burden of disease and cost-effectiveness measurement and packaging—has identified two major weaknesses:

- ▲ Data needs; and
- ▲ Technology transfer/intellectual sustainability

This approach to resource allocation decision-making must be simplified and strengthened.

1. **Tools for the assessment of spending patterns equity and efficiency.** Equity and efficiency of resource allocation should be studied. HFS found evidence of inequitable allocations of government resources in most countries where it carried out applied research. Government subsidies were not benefiting the people who most needed them—poor rural residents – because a disproportionately large share of resources were devoted to providing services in urban areas. Tools that gauge equity and efficiency of current allocations; assess potential gains in equity and efficiency from improved allocations; and identify concrete mechanisms and strategies to make reallocation possible should be developed, tested, and disseminated (Bitran 1995).
2. **Building incentives into resource transfer mechanisms.** A major challenge is the progressive introduction of incentives in public systems. Introducing changes in the mechanisms for transferring government financial resources to public providers is a promising area and one that should be explored in depth in upcoming research efforts. These mechanisms may shift from the current fixed budget allocations to allocations that reward the provision of good quality and cost-effective services. Effective decentralization of government health services may be a necessary condition to permit the successful adoption of such mechanisms (Bitran 1995).
3. **Consumer inefficiency.** One important element of priority setting is ensuring that cost-effective interventions are made available. An equally important element is that the general public takes advantage of these interventions. Identifying and measuring consumption inefficiencies can assist policymakers in establishing information campaigns or adjusting prices to improve consumption patterns. Research is needed in measuring consumer inefficiency in the following areas (Barlow 1993):
  - ▲ **Divergence between private and social preferences.** Utility maximization behavior by individuals in their consumption of health services will not necessarily maximize the health status of the population. Individuals are often misinformed about the health effects of specific forms of consumption, and ignore the positive externalities characterizing their own consumption.
  - ▲ **Distortionary pricing.** Prices charged for health services may not reflect marginal cost. Where the ratio of price to marginal cost is high, service tends to be overconsumed; where the ratio is relatively low, service tends to be underconsumed.
  - ▲ **Prohibitive pricing.** Services sometimes stay unused because prices are set too high.
  - ▲ **Outside influences on choice.** Private preferences regarding health care are often overruled by other persons, including health care providers and relatives. These influences sometimes lead to inferior health outcomes.

4. **Priority setting at the micro or clinical level.** In general, priority setting at the micro level has been investigated less than at the macro or system-wide level. There is a need to complement system-wide research with work that focuses on amounts of investments in particular patients or hospital departments and on prioritizing access to treatment among patients (Ham, 1995).
5. **The relationship between macro and micro levels of decision-making.** In most systems, it is clear that micro decisions are influenced by the macro context, but the mechanisms under which they operate are not well understood. An analysis of how clinicians in different systems respond to the resource and policy constraints under which they function would help fill this gap (Ham, 1995).
6. **Cost savings from delivery re-orientation.** Research is needed to measure cost savings within specific countries from shifting health spending for clinical services from tertiary care facilities to district health infrastructure capable of delivering essential clinical care (World Development Report, 1993).
7. **The influence of cost recovery on budget expenditures.** An objective of cost recovery is to bring in new resources for the health sector. Little is known, however, about how governments reallocate existing resources freed up by cost recovery. An important question is to what extent are government funds freed up by cost recovery reallocated to primary and preventive health care services (Shaw and Griffin, 1995).

### 2.2.3 Proposed Projects for Research

The Applied Research Agenda should consider the comparative advantages and strategic objectives of USAID and PHR in selecting issues for analysis. The following potential research topics are proposed for priority consideration:

1. **Priority-setting methodology.**
  - ▲ User-friendly methodology for a burden of disease analysis approach that takes into account the development level, data availability, and institutional capacity of countries.
  - ▲ A simplified cost estimation methodology for health interventions at different delivery levels (e.g., community, health posts, outpatient, inpatient).
  - ▲ A spreadsheet program for cost estimation that can be easily adapted to local conditions and used as a training tool, and an accompanying manual.
  - ▲ A user-friendly intervention efficacy database.
  - ▲ A spreadsheet program for estimating the cost-effectiveness of health interventions at different delivery levels.
  - ▲ Guidelines for utilizing the cost-effectiveness and burden of disease analysis to form either packages of essential health interventions or the basis for benefits packages in certain environments.

- ▲ Training manuals incorporating the use of burden of disease and cost-effectiveness analysis for policy reform.
- 2. **Tools for the assessment of equity and efficiency of spending patterns.** Tools that gauge equity and efficiency implications of current allocations; assess potential gains in equity and efficiency from improved allocations; and identify concrete mechanisms and strategies to make reallocation possible should be developed, tested, and disseminated.
- 3. **Consumer inefficiency/efficiency.** Analysis of existing household surveys, and collection and analysis of additional patient and utilization surveys. Analysis of impact of information campaigns and health education programs. Analysis of the effect of different pricing strategies.

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## 2.3 Health Financing: Finance, Costing, and Expenditure Monitoring

### 2.3.1 Importance

Health financing research has focused on individual mechanisms, and evaluated each according to the immediate and direct effects on the health sector. Meeting USAID's strategic objectives in the health and population sectors, however, is not dependent on any one financing method, but on the overall impact of all financing methods on a country's health system. The means to systematically evaluate effects of individual financing mechanisms on the health system, as well as to assess the relative performance of existing systems, is needed.

Most developing country MOHs use outdated accounting classifications designed primarily for compliance with government-wide requirements. Accounting mechanisms exist primarily for expenditure control, and not for the purpose of management. While consistency in accounting rules are useful for government monitoring and control, the lack of detailed and transparent program budgeting limits the availability of important financial information for planning and decision-making.

It is also important to have facility-level cost information systems. The sophistication of cost information systems varies from very detailed step-down cost accounting, to simple primary health level cost-estimation techniques. Without systems for cost-estimation or cost accounting, it is difficult for policymakers to understand the cost-effectiveness of programs and interventions and monitor resource use for equity, efficiency, and financial sustainability consideration.

### 2.3.2 Review of Key Issues and Current Research

#### 2.3.2.1 National Health Accounts

In OECD countries, analysis of health systems financing is based on the use of National Health Accounts (NHA) methodologies. While NHA is used by all OECD countries and the USA, they have not been widely exploited in developing countries. Both the USA and PHR consortium partners have considerable and unique expertise in constructing NHA in the context of developing countries. This experience can be built upon to develop more a more systematic approach to NHA

in developing countries. Although the World Bank and WHO have recognized the importance of NHA, they have not been able to provide money or TA to many countries or regions to develop NHA. This is one area where USAID and PHR have considerable comparative advantages.

### **2.3.2.2 Transparent budgeting/expenditure reporting and analysis**

Using existing examples of successful budget mechanisms, a budgeting tool can be developed and tested in different countries to address informational needs for planning and monitoring. Examples of the information that would be useful to policymakers and should be made available at the macro level include:

- △ Operating and Capital
- △ Operating Categories
  - Labor
  - Drugs
  - Maintenance
- △ Type of Care I
  - Personal Curative (Inpatient, Outpatient)
  - Preventive (Alma Ata Declaration: Health Education, Nutrition, Water, and Sanitation; Maternal and Child Health; Family Planning; Immunization; Control of Endemic Diseases such as Malaria and Schistosomiasis; Treatment of Common Conditions such as Diarrhea and Injuries; Essential Drugs)
- △ Type of Care II
  - Facility-Based Health Services
  - Community-based Health Services (e.g., Water and Sanitation, Disease Control Campaign)
  - Training
  - Central Administration
  - Research
  - Grants
- △ Geographic Distribution
- △ Population Served

### **2.3.2.3 Cost accounting and cost estimation tools**

Cost accounting and cost estimation manuals exist for a variety of levels of facilities and programs. A useful activity would be a systematic review of existing manuals and methodologies for the development of a series of costing packages and accompanying training materials, with a special emphasis on USAID-sponsored programs. The sophistication of the costing packages should reflect the realities of different health systems in terms of the types of facilities and availability of data.

#### 2.3.2.4

### Provider Payment Incentives

Resources generated through a financing mechanism must eventually be transferred to the providers. How that transfer is accomplished is linked to the type of financing mechanism used. In the case of insurance and user fees, the process by which providers receive additional resources can be varied considerably. Payment incentives and provider behavior are very important research areas closely related to the mechanisms used to generate resources. How providers are reimbursed impacts their behavior towards patients. Given asymmetric information, the ultimate decision of the type and quantity of services to be consumed rests with the provider. Therefore, by understanding provider's behavioral response to different payment mechanisms, policymakers can better use policy to achieve objectives of efficiency, equity and quality, etc. This area is a key link between many other areas in health financing and achieving actual changes in provider behavior which improve child survival, reproductive health, and access to population services.

Despite the large body of theoretical literature addressing different payment impacts on provider behavior, little empirical evidence is available in developing countries (Barnum et al., 1995; Nguyen, 1994). Other than the impact of fee-for-service, very little is known about the impact of payment mechanisms such as capitation or global budgets on provider behavior, or about the subsequent impact on efficiency, equity, and quality of care. Even less is known about the effects on patient health in terms of different provider incentives associated with each financing mechanism (Aas, 1995).

There are several areas of interest for potential research, which also have significant relevance to achieving USAID's health and population sector goals.

- ▲ Existing payment mechanisms in developing countries

Description of different payment methods that exist in developing countries, and relating the development of mechanisms to local economic and political situations. Evaluation of the different mechanisms on provider behavior in terms of cost, quality, and equity. Each payment mechanism also needs to be evaluated for its feasibility under different institutional and social conditions. For example, while diagnosis-related groups (DRG)-based reimbursement systems are being introduced in OECD countries, they may not be feasible in poor developing countries without the requisite information and managerial infrastructure. Assessment of different conditions under which each payment mechanism is feasible would be of practical assistance to many policymakers and USAID project officers.

- ▲ Use of payment mechanisms to enhance private supply of public health goods

The link between payment mechanisms and provision of priority health services related to child survival, reproductive health, and fertility control is not well understood. Applied research to develop guidelines for adapting payment mechanism incentives to increase the supply of these key public health goods from private suppliers might make a significant contribution to achieving USAID's strategic objectives.

- ▲ The effects of dual job-holding by public sector physicians

While dual job-holding is a well-known and widespread problem in developing countries, nothing is known about the impact of this phenomenon. From a social point of view, does dual job-holding affect quality of care? If so, to what extent, and if not, what is its

significance? To what extent does dual job-holding lead to market segmentation? Is segmentation on quality and price, or on patient income? Understanding what leads to the emergence of private sectors affects competition between public and private sectors. Field research examining these issues is currently constrained by limited methodological tools. There is a need to develop better provider and household surveys with carefully designed instruments to properly capture the following: (I) a set of financial incentives faced by the physicians in both the public and private sectors, (ii) aspects of quality that include measures of structure, process, outcome, and patient satisfaction (USAID funded some work in this area in Senegal under HFS, but there is potential to improve upon this) (Bitran, 1995), and (iii) individual choice of public and private providers.

### 2.3.3 Proposed Projects for Research

The Applied Research Agenda should consider the comparative advantages and strategic objectives of USAID and PHR in selecting the issues for analysis. The following potential research topics are proposed for priority consideration:

- 1. Development of NHA methodologies and their application in a group of countries.** Most countries within regions share important similarities in their health care systems, which would allow them to cooperate on the development of common definitions and approaches. A PHR project would work with a group of countries to develop common definitions and share experiences in constructing a set of consistent and comparable NHA methods.
- 2. Development and testing of improved systems for monitoring public sector health expenditures,** e.g., all government health spending (i.e., national/subnational, non-MOH); appropriate functional, line item, other categories; budget versus expenditures; and routine information systems with high-level reporting and access.
- 3. Costing methods.** Development of methods for rapid and low-cost costing methods for hospitals and clinics to assist health sector or MOH managers identify variations in performance and efficiency.

#### 2.3.3.1 Provider payment incentives

- 1. Comparative evaluation of existing payment mechanisms in developing countries.** Describing the extent of different payment methods that exist in developing countries, and relating the development of mechanisms to local economic and political situations. Evaluate different mechanisms on provider behavior in terms of costs, quality, and equity.
- 2. Design intervention study of new payment scheme,** which considers a mixed payment system (theoretically proven to produce more optimal results than any single payment method), and a performance-based payment method for physicians, such as the one in Indonesia. The Indonesian system suffers several key conceptual and practical problems. A modification of that system may be the first step of an intervention study.
- 3. An empirical analysis of the effect of dual job-holding of public physicians.** While dual job-holding is a well-known and widespread problem in developing countries,

nothing is known about the impact of this phenomenon. From a social viewpoint, does dual job-holding affect quality of care? If so, to what extent? If not, of what significance is dual job holding? To what extent does dual job holding lead to market segmentation? Is segmentation on quality and price, or patient income? Understanding what leads to the emergence of private sectors affects competition between public and private sectors. An AR project might include provider and household surveys with carefully designed instruments to capture a set of financial incentives faced by the physicians in both the public and private sectors; aspects of quality that include measures of structure, process, outcome, and patient satisfaction (the provider survey in Senegal described in Bitran, 1995 could be modified); and individual choice of public and private providers.

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## 3.0 Health Service Improvement

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### 3.1 Health Care Organization, Quality, and Supervision

#### 3.1.1 Importance

1. **Role of training.** The presence of trained health staff is one of the critical components for the successful delivery of health care services. Training has long been one of the cornerstones of assistance programs to strengthen health care systems in developing countries, yet the results are often either marginal or of limited duration. Countless project evaluations point to the fallacy in the premise that training in itself will bring about a change in behavior. It is already accepted that other management systems, such as supervision, form an integral part of sustainable efforts to provide better quality care. Efforts to improve individual components of the health care system, without analyzing and improving the system as a whole, have not led to desired results.

The shortcomings of training notwithstanding, health sector reform, and in particular decentralization, is governed by the available capacity at each level of the health system. Health staff and managers are increasingly called upon to carry out a variety of management tasks. Of particular relevance to health reform are such skills as program planning and management, financial management, budgeting, and accounting. Capacity must be present not only at the lower administrative levels, where responsibility often falls, but also at higher levels, which are responsible for relinquishing direct management tasks for delivery of care to the lower levels, while assuming new roles and responsibilities of program oversight.

2. **Emphasis on quality.** An overall objective of health sector reform is to improve the efficiency and quality of health service delivery. Improved quality refers not only to the clinical aspects of service delivery (technical competence of health personnel), but also to improvement of such dimensions as access, efficiency, and efficacy. The essential change in some of the more successful health sector reform programs has been the introduction of modern management insights. Total quality management, reengineering, and performance-based monitoring (among others), while different management approaches, reflect a common recognition that improvement in quality cannot be sought only in the strengthening of isolated capabilities or programs. Most problems of suboptimal quality are related to flaws in the design or execution of processes from which a health system is comprised, rather than to a lack of technical skills and competence.

Working in teams; problem-solving based upon careful analysis of problems occurring within well-defined processes; redesigning processes that do not meet expected outcomes; and monitoring results by continuously measuring preestablished indicators are skills that have become part of the management training of health professionals in developing countries.

Quality management in its many forms is a relatively new field. Much has been written about the different schools of thought and the best ways in which to introduce quality

management within a health system. Existing literature on the impact of quality management is almost entirely focused on developed country settings. Efforts to introduce quality management in developing countries are relatively recent and few comparative evaluations have been done. No systematic and comparative studies exist about the relationship between the introduction of quality management and outcomes, or the comparison of quality management with other management-strengthening activities, such as training and improved supervision. Representatives of developing countries at recent meetings of the International Society for Quality in Health Care have called for the systematic and comparative evaluation of different quality management models (proceedings of the Third Consultative Meeting of Developing Countries held in St. Johns, Canada, on the applicability of different quality assurance methodologies in developing countries, WHO, 1995).

3. **Cost and Quality.** Another aspect of the effectiveness of quality interventions is cost. While everyone believes in quality, it does cost money (at least initially) and must be weighed against requirements for basic coverage. Critics question the sustainability and replicability of modern quality management approaches, and even those who are not explicit critics may prefer the showiness of refurbished clinics and trained workers to the less obvious but ultimately more important benefits of process improvement. The key issue is the recognition that some health care activities are not worth doing, or may even be counterproductive, if they are not done properly; and policymakers need guidance in determining acceptable standards of care and associated processes of implementation, including financial resources needed.

Cost, quality, and financing are clearly related, but the nature of these relationships and overall integrity of the triangle has been neither documented nor hypothesized. Quality improvement costs money, but also saves money. By making services more attractive, it may enhance revenue generation, but the temptations of revenue generation (e.g., pandering to inappropriate consumer preferences) and cost reduction (e.g., cutting corners on treatment) may detract from quality. The source of financing and the degree of user choice in deciding how money is spent almost certainly influence quality. There are important implications for related policy concerns, including privatization and decentralization, and these, in turn, have important implications for quality.

### 3.1.2 Review of Key Issues and Current Research

As PHR moves into new management areas, it should give high priority to the relationships between cost, quality, and financing. The reason can be seen in the following hypothesized links:

1. Poor quality costs money through mismanagement and ineffective treatment.
2. Good quality, at least as defined by users, increases possibilities for copayment; this may, in turn, produce funds for further quality improvement.
3. The source and magnitude of health care financing provide incentives for quality, and resulting motivations may undermine as well as promote policy objectives.
4. Quality improvement is expensive, but ultimately reduces costs and encourages user payments.

There are a number of potential topics relevant to PHR's mandate, some requiring synthesis and effective presentation of existing studies, others requiring original research. We know from both U.S. and international studies, for example, that poor quality can have serious financial implications for certain technical interventions. We need to know more about (1) which activities are particularly affected; (2) costs of poor quality within these activities; (3) costs of improving quality for those programs; and (4) benefits of quality improvement. A further concern is that the few studies that exist regarding these questions generally consider only a single technical intervention, whereas quality assurance becomes more efficient when applied to service sites rather than individual activities.

Senior health staff need guidance on the importance of quality management, including how much to spend on it and how to balance it with other policy priorities. Those in charge of implementing specific policies, e.g., policies related to financing and privatization, need to understand the importance of both client and provider motivations. USAID must determine the importance of quality management within its overall assistance portfolio. While numerous research needs exist, this proposal concentrates on: (1) relationships between cost and quality (i.e., most of hypothesis 4), and (2) the effect of financing sources on provider motivation (most of hypothesis 3).

### **3.1.2.1 Relationships between cost and quality**

When discussing quality, it is important to distinguish between the three cornerstones of quality assurance, i.e., quality design, quality control, and quality improvement. Questions related to the relationship between cost and quality varies, depending on the aspect addressed. In most instances, discussion about the relationship between quality and cost focuses on the costs associated with quality improvement activities. Nevertheless, important cost questions are also related to quality design, cost-effectiveness of quality standards, and willingness to pay (both by financers and users) for quality services. Important first steps in the analysis of policy questions and available information has been completed by Annemarie Wouters under auspices of the Quality Assurance Project. She found a scarcity of information about the relationship between cost and quality. It was also difficult to conclude in any definitive terms which attributing factors in cost are directly related to differences in quality. One of the important themes regarding developing countries is the lack of information about the cost of doing business, i.e., costs associated with the provision of a basic package of services, as opposed to the costs of actually improving the quality of these same services. There is a lack of information about the costs of poor quality services, in terms of adverse outcomes, and a comparison of these negative costs with costs associated with improved outcomes is needed.

While cost-benefit studies exist for specific technical interventions, few consider effectiveness under normal rather than ideal conditions. Usually studies show that a given intervention – if properly implemented – can produce significant benefits. The cost side of the equation usually factors in inefficiency, but the benefit side often does not; investigators normally do everything they can to increase the efficacy of their intervention. Application under common field conditions may be less effective and, in rare cases, even counterproductive (e.g., introduction of a new drug without proper controls).

Studies are beginning to document the costs of poor quality, but not the costs and benefits of quality improvement (except on a very small scale). TB, for example, has severe economic implications for working-age populations, and the poor case management increasingly in evidence worsens treatment costs for both individuals and national programs. Efforts to increase attention

to TB treatment protocols also require funding; the questions are, how much, and do benefits exceed costs? Immunization, family planning, and other discretionary programs lose potential clients because of poor quality. Costs may be reasonably well-documented in these cases, but the resource requirements and potential benefits of improving quality are not.

### **3.1.2.2 Relationships between financing and quality**

Financing clearly influences quality, though rarely in the simplistic way commonly assumed. Money buys program inputs (e.g., facilities, trained personnel, commodities), but does not necessarily buy process quality, which leads to considerable treatment error even in wealthy countries. In some ways, the more important effects of financing derive from their source and manner of disbursement. For example, whether particular providers or drug sellers are financially motivated to treat cases ethically or otherwise, sell inappropriate or adulterated medications, and so forth, should be explored. We do not propose research related to the magnitude of financing, but we do see significant policy issues related to financing sources, privatization, locally managed cost recovery, pharmaceutical manufacture and distribution, and so forth.

Most studies to date have examined quality as an independent variable and considered the degree to which client perceptions of quality influence willingness to pay. Quality has often been defined, rather simplistically, as availability of drugs, although several HFS studies, as well as numerous social marketing analyses, have investigated other potential client interests. Abundant American experience (e.g., Medicaid, Medicare) documents the effect of payment systems on provider practices, mostly raising doubts that new systems have, in fact, improved quality. There has been little serious consideration of this issue in developing countries, however.

There are also many issues related to the reverse effect, i.e., how quality affects financing. There is ample literature (Wouters, QAP, 1994) indicating that people are willing to pay extra for what they perceive to be quality, and this may in turn produce funds which can be applied to quality improvement. Research should focus on ways in which programs identify and respond to user quality concerns.

### **3.1.2.3 Incentives**

Little is known about the incentives that are needed or are feasible to maintain the motivation and commitment of health personnel to continue to seek improved service delivery. Consensus in the literature exists about the need for incentives, but no evaluation has been done about the effectiveness of various incentives structures, nor about costs of such programs (QAP, forthcoming).

### **3.1.2.4 Costs and benefits of alternative approaches to quality improvement**

Managers have numerous options available to improve quality of care, but their costs and benefits differ. As indicated earlier, training is often the preferred solution, yet field practitioners know that it is of widely varying benefit. Supervision is often favored as well, although experts have tried to strengthen supervision for decades, with few lasting benefits. Health care financing projects have often focused on manuals, procedures, and systems, but have found that few of the intended innovations are adopted. We need better approaches to organizational change in developing countries. Research can help quantify costs and benefits.

### 3.1.3 Proposed Projects for Research

The following issues have been identified as possible subjects for applied research. Their selection has been based on the knowledge of ongoing concern within USAID about policy repercussions of quality management approaches; on the feedback received from developing countries regarding quality associated with annual ISQUA meetings; and on the limited available literature.

1. Further conceptual analysis of the likely effects of current financing practices on quality
2. Empirical (comparative) documentation of theoretical expectations about the relationship between financing and quality
3. Comparative study of small-scale interventions to modify existing motivations to improve quality of services
4. Analysis of the incremental costs associated with quality improvements, and with instituting a quality assurance program. Under which circumstances do quality improvements lead to cost savings?
5. Costs of poor quality of care
6. Cost-effectiveness of quality improvements in primary health care services

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## 3.2 Health Service Improvement: Pharmaceutical Policy

### 3.2.1 Importance

Effective, safe, affordable, and good quality drugs are an essential element of comprehensive health care. There is increasing recognition that serious problems exist in many current systems of pharmaceutical development, marketing, distribution, and use – especially in developing countries. Ensuring accessibility and availability of essential drugs to citizens has become one of the recognized responsibilities of national governments. Pharmaceutical policy has thus emerged as one of the key components of health sector reform.

### 3.2.2 Review of Key Issues and Current Research

In the past 20 years, numerous initiatives have been implemented regarding pharmaceutical policies in developing countries. During the 1980s, the leadership provided in this field by WHO's Action Program on Essential Drugs (APED) was actively supported by non-governmental organizations (e.g., Health Action International), industry associations (e.g., the International Federation of Pharmaceutical Manufacturers Association), and others. Bilateral and multilateral agencies also became involved in promoting and supporting pharmaceutical policy development. In the late 1980s, attention turned to issues of health financing and drugs (through UNICEF's Bamako Initiative) and issues of drug utilization (illustrated by the International

Network on the Rational Use of Drugs). Improving the pharmaceutical sector in developing countries was cited as a priority by the World Bank in its 1993 *World Development Report*. The World Bank has followed up on its recommendations by organizing an international conference on the role of the state in the pharmaceutical sector, and initiating work on a collaborative position paper that will formulate the Bank's agenda for pharmaceuticals over the next decade.

For its part, WHO designed guidelines for the development of national drug policies (WHO, 1988), which include legislation/regulation, regulatory control, pricing, distribution, drug selection, drug prescribing and dispensing, quality control, and human resource concerns. The WHO guidelines are based on the concept of "essential drugs," a model list of about 250 drugs that would be sufficient to treat 90 percent of the morbidity within a given country (WHO, 1977). These guidelines, however, provide little information about the processes of policy development and implementation. In addition, WHO is just beginning to develop methods to assess the performance of pharmaceutical policy at the national level. Thus, while WHO/DAP has effectively identified key elements of a national drug policy and disseminated information on these ideas, it has encountered difficulties in promoting the national implementation of new policies and articulating how public and private sectors can positively interact in the pharmaceutical sector.

Existing studies on national drug policies (NDP), most of them based on the essential drugs concept, have suffered from two main problems. First, they lack systematic comparisons of in-depth national studies. Second, they have not led to innovative ideas for improving the formulation and implementation of NDP. Limited systematic review and analysis has been conducted on the international efforts to develop pharmaceutical policies. (Harvard University is currently participating in a collaborative project with WHO and the Karolinska Institute in Sweden, which entails a comparative assessment of the performance and processes of pharmaceutical policies in 9 developing countries in Asia, Africa, and Latin America). Finally, the role of the private sector and function of the international pharmaceutical industry have not been given much research attention, particularly with regard to drug development, regulation, and pricing issues.

### **3.2.3 Proposed Projects for Research**

Four areas of research are proposed, in order of priority:

1. Health policy versus industrial policy, including intellectual property and patent issues (e.g., development of analytic framework for assessing desirability of protecting domestic pharmaceutical manufacturing in developing countries, compared with encouraging cheap imports to reduce prices);
2. Regulatory strategies for the pharmaceutical sector;
3. Role of international agencies in the pharmaceutical sector; and
4. Drug development for developing countries, including cost and pricing issues.

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## **3.3 Health Service Improvement: Pharmaceutical Management**

USAID is currently actively involved in the area of pharmaceutical management. The Rational Drug Management Project is in the final stages of revising and publishing the standard reference *Managing Drug Supply*.

BASICS is involved in a five-country (3 in Africa, 2 in Latin America) comparative study on exoneration systems for cost recovery.

The International Network for Rational Use of Drugs (INRUD) was established in 1989 to promote the rational use of pharmaceuticals. One of its foci is the development of useful tools for research, including standard research methodologies. It might be worthwhile to investigate the perceived need of this organization for additional research support.

Given the importance of USAID's current activity in this field, it is recommended to assess the need for additional applied research in subsequent years.

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## **3.4 Health Service Improvement: Private Sector Cooperation and Initiatives**

### **3.4.1 Importance**

For the purpose of this review, "private sector" refers to all non-governmental providers of health care, regardless of financing source. This section does not address issues of private financing, such as user fees, private insurance, etc., which are covered in the other sections. Private sector thus extends from traditional providers and shops to private hospitals. In most developing and USAID host countries, the private sector is also the major recipient of private financing in the health sector, but cannot be assumed to be synonymous with it.

Although public sector health services have been the traditional focus of donor and governmental policies and funding, the private sector does matter in any consideration of strategies designed to reach population-wide USAID child survival, reproductive health, HIV/AIDS control, and fertility reduction goals. A number of detailed country studies and private sector assessments in the past ten years (e.g., Berman and Rannan-Eliya, 1993; Rannan-Eliya and de Mel, 1996) have examined the role of private providers in the provision of services. The studies establish, beyond any dispute, that in many, if not most, low and middle-income developing countries, with the possible exceptions of the NIS, private sector providers meet a significant share of overall demand for health and medical services. More importantly, the general picture in countries as diverse as Sri Lanka, China, India, Kenya, and Jamaica is that the private sector is most active in the provision of ambulatory/primary health care and distribution of pharmaceuticals, contraceptives, and commodities, and least active in its provision of hospital care.

If PHR is to assist in achieving USAID's strategic objectives in health and population, it cannot ignore what is a major, if not the dominant, provider of health and population services in most countries. PHR-sponsored applied research activities should support four broad private sector policy objectives:

1. Improving and strengthening the positive contribution of the private sector towards public sector goals, and reducing the negative contribution;
2. Improving quality, effectiveness, and impact of the private sector contribution;
3. Reducing excess cost and poor quality in provision; and
4. Improving the relationship and interaction between public and private sectors.

## **3.4.2 Review of Key Issues and Current Research**

### **3.4.2.1 Better descriptions of existing private sector providers and the care they provide**

When the private sector was placed on the policy agenda in the late 1980s, it became apparent that little information existed about it (Bennett, 1995). It has proven difficult to formulate research agendas and policy recommendations when little is known about its composition, extent, activities, and behavior. USAID and the ODA-sponsored Health Economics and Financing Programme (HEFP) have supported a number of country studies, which have revealed that the private sector in individual countries is diverse both between and within countries (DDM, 1994; HEFP, 1993). Although some have argued that crude estimates of private sector activity are sufficient (Bennett, 1995), the existence of this heterogeneity indicates the need for detailed country assessments before making country-specific policy recommendations. It has also become apparent from these and other studies (Berman and Rose, 1994) that the contribution of private providers to child survival, reproductive health, and population goals varies considerably between countries and across population groups and interventions within countries, which further underlines the need for detailed assessments. Since policymakers still have few tools for influencing the private sector, better understanding of the differences between countries would aid development of new tools and policies in other countries.

Assessing private sector activities is constrained by the inadequacy of databases in most countries, but it is possible despite the data limitations to develop reasonably accurate and informative descriptions of the private sector in most countries (Berman and Hanson, 1995, the DDM paper on private sector assessments). Similar problems in the productive sectors led to considerable effort by the World Bank and USAID to develop improved and relatively cheap private sector assessment tools, which have proved of considerable benefit both to donors and national policymakers (Paul, 1990). Given continuing difficulties in describing the private health sectors in many countries, further improvement and field-testing of data collection methodologies and private sector assessment tools are of critical importance in supporting further work in this area (Berman, 1995, Bennett, 1995). In a number of areas, there are existing tools previously supported by USAID which might warrant additional refinement and development (e.g., DHS program, DDM private sector assessment methodologies). Emphasis should also be placed on developing tools which do not require expensive primary data collection or modify existing data collection efforts, such as LSMS-type surveys.

### **3.4.2.2 Improved understanding of the behavior of private sector providers and how private sector markets operate**

While there has been significant progress in descriptive studies of the private sector, an understanding of how private providers operate and factors determining their activity is limited (Bennett, 1991 and 1995). If public policies are to maximize the private sector contribution towards child survival, fertility reduction, reproductive health, and HIV/AIDS control, they must be based on an adequate understanding of the market conditions and dynamics driving private providers. Failure to do so will result in ineffective or costly interventions. Analysis of market dynamics must be linked to making potential USAID interventions market-conforming, and thus more likely to succeed.

USAID has been active in sponsoring research to promote provision of a few key services by private providers, including training of providers in family planning, provision of preventive services by employers, and marketing oral rehydration salts (ORS) through pharmacies and shops (Berman, 1995). While there is potential for extending the results of this work to other interventions, there is a need for better understanding of the macro-dynamics of private sector markets. Ultimately, the effectiveness of all these intervention-specific strategies is limited by the overall constraints on private sector provision. Although HFS supported a review of the determinants of private provision (Berman and Rannan-Eliya, 1993) and an examination of the relative costs/efficiency of public and private providers in Senegal (Bitran, 1994), limited additional work has been done on evaluating and examining the role of these determinants, or developing policy implications for USAID.

### **3.4.2.3 Development of policy tools and interventions to influence private sector activity**

The international health policy debate has largely gone beyond the previously ideologically polarized argument about whether private provision was desirable (Roemer, 1984; Roth, 1988). The issue today is deciding the areas in which public or private financing and provision are more advantageous. Although it is possible to have private financing of public services, and public financing of private financing, political and social factors and transaction costs currently limit both types of financing in most developing countries (with the exception of those with significant social insurance or very high levels of cost recovery). Therefore, the question of where private financing is most appropriate is similar to the question of where public and private provision are preferred.

The current World Bank approach, as expressed in *WDR 1993*, takes the view that cost-effectiveness in DALY gains should be the main criterion to determine which services should be publicly financed and provided. Most of the services crucial to meeting USAID health and population strategic objectives would be included in the list of those which are to be publicly financed. This approach, however, is not shared by all and is even opposed by some in the Bank on theoretical grounds (Hammer and Berman, 1995). *WDR 1993* tends to urge public provision of services included in the cost-effective package, and for-profit private services are implied to be wrong, but empirical investigation of this is needed. The logical conclusion of this approach and the related reluctance to publicly fund secondary and tertiary hospital care also sit somewhat uneasily with the apparent allocation of public financing in several developing countries which have been most successful in meeting USAID's strategic objectives (e.g., China, Sri Lanka, and Jamaica), and the alternative approaches used in developed countries to determine the allocation of public funding (Rannan-Eliya and de Mel, 1996). It is also incompatible with USAID's tradition of strong support for social marketing programs, which usually means public support for private

provision. There is a need for conceptual and applied research examining both the current Bank approach and potential alternatives (Bennett, 1995). Since both the Bank and WHO have made significant institutional commitments to the approaches elaborated in *WDR 1993*, there is considerable opportunity for PHR activity in this area, and one which is likely to support USAID global leadership objectives, as well as inform those activities for which USAID is particularly noted. To the extent that private provision and financing of child survival, reproductive health, and family planning services are significant in many successful developing countries, there are great potential benefits for USAID to pursue serious evaluation of these issues.

A major concern of policymakers is ultimately to influence private sector activity so that it conforms closer to national public health goals (strategic objectives, in the case of USAID). In practice, international experience with policy measures is extremely limited. Historically, governments have either ignored private providers or attempted to suppress them. The intermediate policy tool of regulation has generally not been successfully implemented or had the desired effects. MOHs are now interested in more sophisticated approaches to the private sector, but there is a general lack of experience in how to go about this (WHO, 1994, Bennett et al., 1994; Berman and Rannan-Eliya, 1993). While there is increasing recognition that regulatory and other measures should ideally be based on incentives as well as disincentives (Bennet et al., 1994), there is still insufficient understanding or appreciation of the behavior and nature of private providers, as well as the problems, constraints, and limitations in implementing regulatory policies. While legal and administrative regulation is now widely recognized as one major tool for influencing private providers, there is still too little attention being given to other methods of government intervention. For example, the observation that cheap and high-quality public services enforce lower prices in Malaysia's private sector (Besley and Hammer, 1994) has not been widely discussed in terms of its implications for regulatory action.

The first three sets of issues address determining what pattern of private sector contribution is desirable, what the current pattern is, and understanding the likely behavior of private providers. Application of this type of knowledge to development of more sophisticated policy interventions is urgently required to expand the number of policy options available and develop more effective ones. It cannot be expected that better understanding of private market functioning will simply lead to better policy tools, however. The existing framework and models for understanding private providers are still rudimentary, and it will not be possible to apply some of the more quantitative methods of analysis used in the USA for policy development. In this situation, there will be considerable advantages using a case study approach in examining comparative international experiences in public policies towards the private sector.

Regulation remains an area of considerable interest to policymakers in many USAID host countries, and several donors, including WHO and ODA, are sponsoring work in this area. Current research, however, still suffers from an incomplete understanding of existing regulatory patterns and lack of conceptual frameworks to aid analysis. Given the extensive work done on regulation in the U.S. in health and other sectors, there may be opportunities for applying some of the same approaches and experiences to an understanding of regulation in developing countries.

In several countries, direct financial incentives for private providers have been offered or are requested. In Africa, preferential access to cheap credit is often a key demand of private providers, while tax exemptions of various kinds are encouraged or have already been granted in other countries. Many of these incentive programs have been funded by USAID, and all seek to increase the supply of private provision. Very few, however, have been systematically evaluated to determine their net effectiveness and potential costs to the rest of the economy. It should also be determined whether providing incentives to only one section of the private sector can cause

socially undesirable distortions in investment of human and capital resources. Given the increasing interest in these interventions, there is an urgent need for more systematic evaluation, as well as development of frameworks to help policymakers and USAID program officers evaluate potential incentive schemes.

#### **3.4.2.4 Strengthening interaction and collaboration between public and private sectors**

Public sectors already interact with private providers in two ways that are particularly visible to policymakers in many developing countries. Private practice by public sector physicians and other providers is regarded as a significant issue by MOHs in all geographical regions. Even where it is legally permitted, MOHs frequently ask how perceived negative effects can be mitigated. There is recognition that private practice can have benefits in conditions of poor salaries and working conditions. Ellis and Chawla (1993) proposed one model for explaining the behavior of public sector doctors holding private sector jobs, but there has been little systematic work done on how to evaluate the benefits and costs of such practices, and how to develop better models of management. In addition, there is a need to evaluate the performances of different modes of private practice in different countries (Bennett, 1995).

Public and private sectors also interact in the mission, or non-profit, sector. Particularly in Africa, mission hospitals perform the functions of public facilities, while receiving government subventions. While mission hospitals have a generally positive reputation, there is need to develop more sophisticated methods of managing these relationships to maximize the contribution to national health goals. It should be noted, however, that in many cases where mission hospitals make significant contributions, a more important policy question is how to improve the contribution of the public facilities themselves.

Mission hospitals are one of the few examples of successful public-private collaboration. Given the fact that private providers already see a significant share of all medical consultations in many countries, there is considerable capacity for government measures that will involve private providers in public health programs, such as providing immunizations, ORS, and contraceptives. USAID is experienced in this type of activity, and this is one possible area where PHR research can build upon and strengthen existing USAID activities.

### **3.4.3 Proposed Projects for Research**

Major issues are ranked in order of importance and relevance, and the sub-issues are ranked within each issue.

1. Better descriptions of existing private sector activities
  - ▲ Basic descriptions of private sector composition and activities in specific countries/regions
  - ▲ Better tools for rapid assessment of private sector activities, particularly in the area of ambulatory care provision and quality differences
  - ▲ Comparative studies of differences between countries
  - ▲ More accurate descriptions of private sector use, disaggregated by population subgroup
2. Improved understanding of how private sector markets operate and the behavior of private sector providers

- ▲ Assessing the determinants of private sector provision, utilization, price, and quality
  - ▲ Better understanding of the differences in cost, efficiency, and quality between for-profit and not-for-profit providers
  - ▲ Better understanding of the links between government policies and private provision
  - ▲ Better understanding of the dynamics of private sector markets, including competitive factors
  - ▲ Development of behavioral theories and models to explain and predict private provider behavior
3. Development of policy tools and interventions to influence private sector activity
    - ▲ Linking government policies to an understanding of private sector market behavior
    - ▲ More complete frameworks for assessing the impact of public interventions
    - ▲ Comparative assessments of different types of public intervention in different countries
    - ▲ Development of conceptual frameworks to assess and evaluate regulatory policies
    - ▲ Analysis of regulatory institutions and related issues, such as regulatory capture
    - ▲ Analysis of the impact of insurance on different types of private providers
    - ▲ Frameworks for evaluation and assessments of incentive programs for private providers
    - ▲ Conceptual and empirical evaluations of the *WDR 1993*'s focus on cost-effectiveness as the criterion for determining the public-private mix
    - ▲ Development of alternative frameworks to assess the optimal public-private mix
  4. Institutional issues and strengthening the interaction and collaboration between public and private sectors
    - ▲ Private practice by public physicians
    - ▲ Management of non-profit institutions within publicly financed systems
    - ▲ Incorporating private providers into public health programs and information systems
    - ▲ Analysis of the role of professional organizations

### 3.4.3.1 Proposed AR research topics

1. **Additional descriptive private sector country assessments:** These would be descriptive studies based on field data collection, and might be linked to specific country TA activities.
2. **Development of better survey instruments and methodologies for private sector analysis:** This involves development of more refined tools for assessing the services delivered by private sector providers, especially in the ambulatory sector. It would include development of more sophisticated survey instruments, and field testing them in one or more countries.
3. **Analysis of the factors affecting the supply and demand for private services at national or regional levels.**
4. **Comparative assessments of government policies towards the private sector:** This might examine the nature and results of similar policies practiced by several countries.
5. **Analysis of market dynamics in difference private sector markets, including competitive factors:** This might involve a comparative study or empirical quantitative analysis to understand behavior of private providers in particular markets, such as private hospital care sectors.

6. **Empirical analysis using quantitative data of incentive schemes for private providers:** Examples include provision of inexpensive credit or tax incentives designed to increase private supply, and a study might make a comparative assessment of several such schemes in different countries.
7. **Development of conceptual and empirical frameworks for assessing and evaluating regulatory policies.**
8. **Comparative studies of regulation in different countries.**
9. **Analysis of the conceptual bases for determining the optimal public-private mix.**
10. **Comparative studies of approaches to managing private practice by public physicians:** This would be a comparative case study of different approaches taken by countries to address this practice. It would attempt to systematically review practices and the effectiveness of different programs in meeting public policy goals.
11. **Development of methods to incorporate private providers into public health programs.**



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