

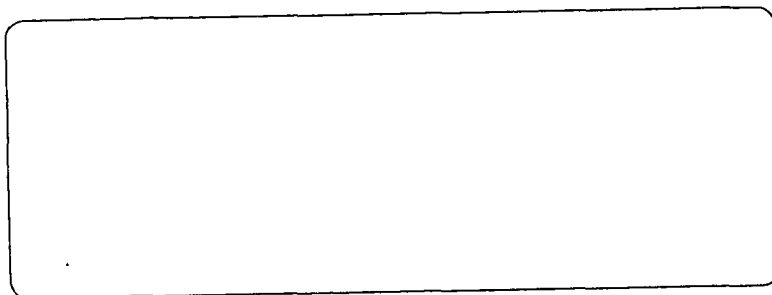
Public Disclosure Authorized

Paying for Health Services in Developing Countries

An Overview

David de Ferranti

WORLD BANK STAFF WORKING PAPERS
Number 721



Public Disclosure Authorized

FILE COPY

WORLD BANK STAFF WORKING PAPERS
Number 721

Paying for Health Services in Developing Countries

An Overview

David de Ferranti

The World Bank
Washington, D.C., U.S.A.

Copyright © 1985
The International Bank for Reconstruction
and Development / THE WORLD BANK
1818 H Street, N.W.
Washington, D.C. 20433, U.S.A.

All rights reserved
Manufactured in the United States of America
First printing February 1985

This is a working document published informally by the World Bank. To present the results of research with the least possible delay, the typescript has not been prepared in accordance with the procedures appropriate to formal printed texts, and the World Bank accepts no responsibility for errors. The publication is supplied at a token charge to defray part of the cost of manufacture and distribution.

The World Bank does not accept responsibility for the views expressed herein, which are those of the authors and should not be attributed to the World Bank or to its affiliated organizations. The findings, interpretations, and conclusions are the results of research supported by the Bank; they do not necessarily represent official policy of the Bank. The designations employed, the presentation of material, and any maps used in this document are solely for the convenience of the reader and do not imply the expression of any opinion whatsoever on the part of the World Bank or its affiliates concerning the legal status of any country, territory, city, area, or of its authorities, or concerning the delimitation of its boundaries, or national affiliation.

The full range of World Bank publications, both free and for sale, is described in the *Catalog of Publications*, the continuing research program is outlined in *Abstracts of Current Studies*. Both booklets are updated annually; the most recent edition of each is available without charge from the Publications Sales Unit, Department T, The World Bank, 1818 H Street, N.W., Washington, D.C. 20433, U.S.A., or from the European Office of the Bank, 66 avenue d'Iéna, 75116 Paris, France.

David de Ferranti is a senior economist in the Population, Health, and Nutrition Department of the World Bank.

Library of Congress Cataloging in Publication Data

De Ferranti, David M.

Paying for health services in developing countries.

(World Bank staff working papers ; no. 721)

Bibliography: p.

1. Medical care, Cost of--Developing countries.
2. Medical fees--Developing countries. 3. Medical policy
--Developing countries. I. Title. II. Series.

RA410.55.D48D4 1985 338.4'33621'091724 85-657

ISBN 0-8213-0502-6

A B S T R A C T

This paper presents an overview of the principal issues, problems, and policy options in financing health services in developing countries. The shortcomings of existing policies, which finance health care to a significant extent from public revenue sources, are reviewed. Alternative approaches are identified and examined, with particular attention to: (i) opportunities for greater cost recovery from users, through fees for services and/or fees for health care "coverage", (ii) the potential role of risk-sharing arrangements, which can range from large, formal insurance plans to small, informal community-based cooperatives, (iii) the public/private mix in both providing and financing care, and (iv) the structuring of subsidies and their incentive effects. Issues relating to these options are discussed concerning efficiency, equity, financial viability (and chronic underfunding "crises"), ability and willingness to pay (and demand elasticities), externalities, users' lack of complete information or understanding of health problems and service benefits, and "merit good" and "public good" arguments, along with several other considerations.

The conclusions argue that present policies need to be substantially reoriented in many countries. The conventional and still growing faith that health care should be totally paid for and administered by government needs to be vigorously challenged. Yet extreme care in developing alternative strategies also is critical, lest sweeping pro-cost-recovery, pro-private-sector reforms be adopted when in fact a more selective approach, recognizing the inherent requirements of different types of services (e.g., preventive vs. curative), is needed.

Within this context of reform tailored to service-specific factors, there appears to be considerable scope for having users bear a larger share of health care costs, preferably through a combination of fees for services and fees for coverage, rather than either alone. The most clearcut target for greater cost recovery is non-referral curative care, which together with referral services accounts for over two thirds of health expenditure. Fees for many preventive services should remain below marginal private cost, and in some cases should be zero or even negative (i.e., there should be incentive payments).

Data on many of these points is very limited. Nevertheless, the basic arguments are not intrinsically different from those used for other sectors, where similar data constraints exist as well. The economic principles appealed to are well known. A case can be made for more research, but this should not deter country officials from taking immediate action where warranted. Much progress in reforming fee schedules, public/private roles, and subsidy structures is possible, even with current evidence, before the question "How far is too far?" becomes critical. The initial incremental steps in such reforms can help generate valuable additional information needed in designing subsequent measures.

ACKNOWLEDGMENTS

I am grateful to Jeremy Warford and several reviewers, including Johannes Linn, Lynn Squire, and colleagues in the Population, Health and Nutrition Department, for useful comments and advice. The assistance of Dirk Prevo in assembling data and Leonila Jose in typing is also much appreciated.

C O N D E N S E

Ce rapport fournit un tableau d'ensemble des principaux problèmes que représente le financement des services de santé pour les pays en développement, et présente une panoplie de solutions éventuelles. Il examine les points faibles des systèmes actuels, qui financent les soins de santé en faisant appel dans une très large mesure aux fonds publics. Le rapport recense et analyse les solutions de remplacement. Il évoque notamment les questions suivantes : i) la possibilité d'une plus grande participation des utilisateurs au recouvrement des coûts, en jouant sur les honoraires des prestations médicales, les cotisations d'assurance maladie, voire sur les deux; ii) le rôle potentiel des régimes de partage des risques, qui peuvent aller des grands systèmes d'assurance maladie structurés aux coopératives locales, non structurées et de moindre envergure; iii) les rôles respectifs du secteur public et du secteur privé, à la fois dans les soins de santé et dans leur financement; iv) le mécanisme des subventions et son effet de stimulation. On discute également des questions que soulèvent ces solutions potentielles, telles que l'efficacité, l'équité, la viabilité financière (ainsi que les "crises" chroniques causées par le sous-financement), la capacité et la volonté de payer des utilisateurs (et l'élasticité de la demande), les retombées et les lacunes dans l'information ou dans la compréhension qu'ont les utilisateurs des problèmes de santé et des prestations. Enfin, le rapport fait l'exposé des arguments qui opposent les systèmes "bons dans leur principe" aux systèmes "bons pour le public", entre autres réflexions.

La conclusion tend à démontrer que les solutions existant dans de nombreux pays doivent être substantiellement modifiées. Il faut constater avec force le credo traditionnel et toujours en vigueur qui proclame que les frais et l'administration des soins de santé incombent entièrement aux gouvernements. Toutefois, il importe de faire preuve d'une extrême prudence si l'on veut mettre sur pied un nouveau système. Faute de quoi, on va se lancer dans de vastes réformes favorisant le recouvrement des coûts et le secteur privé alors que ce dont on a besoin, c'est d'une démarche plus sélective, qui tienne compte des besoins inhérents des différents types de services (par exemple, soins curatifs plutôt que préventifs).

Dans le contexte de cette réforme spécifiquement conçue pour des facteurs liés aux prestations de soins, il se dégage un grand potentiel de mise à contribution des utilisateurs dans une plus grande proportion des coûts des soins de santé, en combinant de préférence l'ajustement des honoraires à celui des cotisations plutôt que de choisir un seul de ces instruments. La cible de choix pour un plus grand recouvrement des coûts sont les soins de santé curatifs non aiguillés. Ils représentent avec les services aiguillés plus des deux tiers des dépenses de santé. Il faudrait que les honoraires de nombreux services de soins préventifs restent inférieurs au coût marginal privé. Dans certains cas, ils devraient être nuls, voire négatifs (c'est-à-dire que l'on devrait instituer des primes d'encouragement).

On dispose de fort peu de données sur beaucoup de ces questions. Quoi qu'il en soit, les arguments de base ne sont pas fondamentalement différents de ceux que l'on utilise dans d'autres secteurs où l'on rencontre de semblables pénuries de données. La théorie économique que l'on invoque ici est bien connue. Peut-être pourrait-on faire un peu plus de recherche, mais cela ne devrait pas empêcher les pouvoirs publics de prendre des mesures immédiates quand elles s'imposent. On peut déjà bien progresser avec les données dont on dispose avant d'arriver à la question de savoir "jusqu'où ne pas aller trop loin". Cette question, il faudra se la poser quand on voudra réformer les barèmes d'honoraires, répartir les rôles entre le public et le privé et modifier les mécanismes de subvention. Les premières mesures progressives de telles réformes peuvent apporter un complément d'information de grande valeur, et dont on aura besoin pour passer à l'étape suivante.

E X T R A C T O

En este documento se pasa revista a las principales cuestiones, problemas y opciones de política existentes en relación con el financiamiento de servicios de salud en los países en desarrollo. Se examinan asimismo las deficiencias de las actuales políticas, en virtud de las cuales los servicios de salud se financian en gran medida con fondos públicos, identificándose y analizándose otros posibles enfoques. El documento aborda los siguientes temas: i) las oportunidades de recuperar una mayor proporción de los costos de los usuarios, mediante el cobro de cargos por los servicios y/o de cargos por concepto de "cobertura" de los mismos; ii) la posible función de arreglos orientados a la participación en los riesgos, que pueden oscilar desde grandes planes formales de seguros hasta pequeñas cooperativas informales de carácter comunitario; iii) la participación pública/privada tanto en el suministro como en el financiamiento de los servicios, y iv) la estructura de las subvenciones y su efecto como incentivos. Respecto de dichas opciones se examinan aspectos de eficiencia, equidad, viabilidad financiera (y "crisis" causadas por la insuficiencia crónica de fondos), capacidad de pago y voluntad para hacerlo (y elasticidades de la demanda), efectos externos, el hecho de que los usuarios carezcan de información completa o de una comprensión adecuada de los problemas de salud y las prestaciones relacionadas con los servicios, argumentos en torno a los "bienes de interés social" y el "bien público" y diversas otras consideraciones.

Las conclusiones señalan que hay que reorientar las actuales políticas en muchos países. Es necesario cuestionar enérgicamente la convicción tradicional y todavía creciente de que los gobiernos deben sufragar totalmente y administrar los servicios de salud. Pero también reviste importancia decisiva el actuar con suma cautela al formular otras estrategias, a fin de evitar que se apliquen reformas radicales tendientes a la recuperación de los costos y a la privatización en casos en que realmente se precise un enfoque más selectivo, que tenga en cuenta la necesidad inherente de diferentes tipos de servicios (por ejemplo, preventivos en vez de curativos).

Dentro de este marco de reformas ajustadas a factores específicamente relacionados con los servicios, parece haber considerable margen para que los usuarios sufraguen una proporción mayor del costo de los servicios de salud, de preferencia mediante una combinación del cobro de cargos por dichos servicios y de cargos por cobertura, en vez de utilizar solamente una de esas opciones. El servicio que es más claramente apropiado para una mayor recuperación de los costos es la atención curativa que no se origina en la referencia de un profesional, ya que junto con la originada en tal referencia representa más de dos tercios de los gastos por concepto de servicios de salud. Los cargos cobrados por muchos servicios preventivos deberían mantenerse por debajo del costo privado marginal y, en algunos casos, deberían ser nulos o incluso negativos (es decir, deberían hacerse pagos a modo de incentivo).

Los datos disponibles sobre muchas de estas cuestiones son muy limitados. No obstante, los argumentos básicos no son intrínsecamente diferentes de los que se utilizan para otros sectores, en los que existen limitaciones semejantes en cuanto a la disponibilidad de datos. Los principios económicos en que se fundamentan las propuestas son bien conocidos. Puede haber justificación para intensificar las investigaciones, pero ello no debe impedir que los funcionarios de los países tomen medidas inmediatas cuando proceda. Hay posibilidades de lograr considerables progresos, incluso con la información ahora disponible, antes de que el interrogante de cuán lejos es demasiado lejos adquiera importancia decisiva en relación con la reforma de la escala de cargos, la participación pública/privada y la estructura de subvenciones. Las primeras medidas de reforma pueden ayudar a generar información adicional que será valiosa para la formulación de las siguientes.

Table of Contents

	<u>Page</u>
SUMMARY	x
INTRODUCTION	1
NATURE OF THE PROBLEM	4
Basic Facts About the Health Sector.	6
The Range of Policy Options Available.	13
Shortcomings of Existing Policies.	18
WHAT ROLE FOR PRICING OF SERVICES?.	22
Where to Begin?	22
Which Services? What Price Levels?	28
Summary	66
WHAT ROLE FOR OTHER OPTIONS?	71
Pricing of "Coverage": Risk-Sharing.	71
Altering the Organizational Makeup of the Sector.	86
CONCLUDING REMARKS	90
Implications for Research	90
ANNEXES	93
A. Health's Share of Government Expenditure and External Assistance.	94
B. Sources	104

SUMMARY

The means by which countries finance the costs of health services can have important effects on the quantity and quality of care provided, the efficiency and equity with which scarce resources are utilized, the general level of health and welfare, the constraints on economic growth, and progress in other sectors (e.g., family planning). Under current policies in many developing countries, health services are financed to a significant degree from public revenue sources. Typically, governments own and run large systems of health facilities, or heavily subsidize quasi-public systems; users pay relatively little for these services. However, some countries have begun to question these policies. Interest has grown in possibilities for increased cost recovery from users and for new forms of private-public partnership in the provision of services.

This paper explores the arguments for and against the principal alternatives available to policymakers, and suggests priorities for action and for research. It challenges the conventional and still growing faith that health care should be paid for and administered by government. Yet it also cautions against opting for sweeping pro-cost-recovery, pro-private-sector reforms when in fact a more selective approach, recognizing the inherent requirements of different types of services (e.g., preventive vs. curative), is needed.

The Problem

Health services account for about 5 percent of total public expenditure in developing countries and for some 2 to 4 percent of gross national product on average. While these current shares may seem modest, the potential for rapid expansion in the next two decades is substantial. As per capita incomes rise, health spending typically rises faster (income elasticities are frequently above 1.2). Where incomes have reached developed country levels, health care can become a troublesome giant -- e.g., over 10 percent of GNP in the United States.

Current policies, this review found, are ill-suited to cope either with prospective future developments or with presently prevailing conditions. First, from an efficiency perspective, they foster inappropriate incentives. Neither providers nor patients are encouraged to behave in ways that minimize waste; and pervasive waste, through both misallocation and internal inefficiencies (e.g., weak management), is a serious problem in the health sectors of many developing countries. Also, current policies may hinder efficiency more broadly because distortionary tax policies are used now to raise the public revenue that pays for health services. Second, from an equity perspective, existing policies may exacerbate the huge disparities that exist in the distribution of health resources. Often they reinforce tendencies that favor advantaged groups at the expense of the disadvantaged (e.g., urban middle class vs. rural poor), or a select few at the expense of the general population (users of capital-city central hospitals vs. users of primary care facilities).

Third, chronic financing "crises," in which the funds available to government health officials fall far short of planned expenditure, have become a commonplace. Overambitious goals, cutbacks in requested shares of general government revenue, and poor financial planning have combined to plunge health systems into prolonged underfunding leading to low quality services and unfulfilled health improvement targets.

The Options

One frequently discussed option available to countries interested in improving their health financing policies is to revise the fee schedules at government facilities. Before saying more about this important possibility, it should be stressed that there are significant other options too, and that exclusive concentration on any one without a broad strategy for all can be misguided.

Some options focus on the nature and extent of cost recovery from users, either directly (as in setting fees at government facilities) or indirectly (by controlling or influencing fees at non-government establishments). Under this heading, countries need to see that besides fees for services, there also can be fees for coverage. Users buy coverage -- i.e., assurance of future access to services when needed at reduced or no extra cost -- through various forms of risk-sharing arrangements. These can range from large, formal social insurance systems to small, informal community-based cooperatives. Though risk-sharing arrangements are not yet widespread, demand for coverage appears to be strong even in least developed communities; and coverage fees can be of diverse types, in cash or in kind. Where intermediaries exist, further possibilities can arise (e.g., as when employers contract with outside providers, or perhaps a health maintenance organization, to meet employees' health needs).

Another set of options is concerned with public/private roles. Expanding or reducing government's involvement in (i) providing services, (ii) financing other providers, or (iii) performing regulatory functions can radically affect the ease or difficulty with which efficiency can be improved and imbalances between revenues and costs can be resolved. Transferring ownership or effective control of facilities to or from the public sector is the most obvious option here, but not the only one. A deliberate policy to allow -- or even encourage -- private or quasi-public services to grow (or decline) in parallel with public care can alter roles through the power of the marketplace, sometimes with less resistance than ownership transfers would elicit. Alternatively, certain reforms can be brought about entirely within the public health system that have similar incentive effects as privatization might -- but with no overt realignment. For example, managers of public facilities can be given considerably more responsibility and financial autonomy.

Still another set of options deals with the structure of public subsidies, a central topic in debates on health financing in developed countries. These options ask, in effect: insofar as subsidies should or in any case will exist, how can they best be structured so as to strengthen desired incentives? Should they be based, for example, on capitation (equal amounts per capita within a given target locale, controlling for that population's health risk factors), reimbursement "norms" reflecting

diagnostically related groupings (DRGs), or average historical costs? Should there be conditions -- e.g., requirements relating to quality, or access for indigents? The kinds of subsidies at issue include all forms of (i) government disbursements to public facilities through normal and extraordinary budgetary channels, (ii) grants and other support to private and quasi-public providers, (iii) interventions in input markets (e.g., subsidized pharmaceutical import prices or medical education), and (iv) aid to users (as in so-called medicaid programs).

The present paper, after briefly outlining the salient questions surrounding these and other options, concentrates primarily on fees for services. This orientation merely reflects the origins of the study, and should not be construed as implying that certain options are necessarily more or less important than others. Those not covered extensively here should be explored further in future studies.

What should countries consider when they review their options? Effects on efficiency and equity should head the list, closely followed by impacts on revenue generation (i.e., Will there be a reduced likelihood of financial "crises" and chronic underfunding of public services?). In addition, more specific questions, particular to each option individually, need to be examined. For example, in the case of fees for services, one wants to know:

- How would demand for the service be affected? (How would households respond? E.g., would they be (i) able and (ii) willing to pay higher fees? How elastic is demand? Would there be shifts among different types of providers? What would be the consequences for those who cannot or choose not to pay? And for those who, because they do pay, have less income for other purposes?)
- How would the supply of services be affected? (Would the quality or quantity of services improve, insofar as additional resources would be available from increased revenue generation, increased efficiency, or reduced demand? What assurance is there that any such additional resources would be allocated where they have a positive net social benefit?)
- Would there be noteworthy externalities?
- Would users' limited information or understanding of their need for or potential benefits of various sorts of services be a significant consideration?
- Would there be "public good" or "merit good" issues?
- Would collection costs or administrative difficulties be an impediment?

While carrying out such analysis, it is crucial to recognize explicitly that health services are highly heterogeneous. Curative and preventive services have very different characteristics with respect to issues relevant for fee setting; and within the preventive category, there

can be important further distinctions. Table S-1 provides one of many possible taxonomies. Although the figures shown on proportions of total health expenditure are only very rough guesses, they highlight another key consideration: curative care is by far the dominant category in terms of resource use. From this perspective, getting one's policies right on curative services should have first priority.

Table S-1. A TAXONOMY OF HEALTH SERVICES/a

Services	Percent of total expenditure on health/ <u>b</u>
Curative care	70 to 87
1. personal services (outpatient and inpatient care)	
2. sale of medicines	
Preventive services: patient related	10 to 20
1. maternal and child health care (includes, e.g., immunization)	
2. other (e.g., home visits by village health promoters)	
Preventive services: other	3 to 10
1. disease control programs (e.g., spraying for malaria)	
2. sanitation	
3. education and promotion on health and hygiene	
4. control of pests and zoonotic diseases	
5. monitoring (e.g., for epidemics)	
Total	100

Sources and Notes: see Table 4.

/a Includes family planning (under "preventive -- patient-related") but not water supply (see Introduction).

/b Rough estimates.

Carrying out these steps -- identifying and empirically answering the relevant questions for each option taking into account the differences among types of services -- is not easy. Useful data are very limited. Few questions can be resolved at present through the sort of rigorous hypothesis testing that would be desirable. What this review has done instead -- and what may be the best that is currently feasible -- is to examine the available country case study examples. Reports on over thirty countries were reviewed from all parts of the developing world. While generalizations are difficult, the following broad observations emerged.

Conclusions

Present health financing policies in most developing countries need to be substantially reoriented. Strategies favoring public provision of services at little or no fee to users and with little encouragement of risk-sharing have been widely unsuccessful. While new initiatives reversing these trends would not always (and not automatically) lead to improvements in efficiency, equity or other aspects of a country's objectives, there do appear to be promising possibilities for designing policies that would yield significant progress in some areas without notable losses in others (e.g., better efficiency without necessarily less equity).

An essential theme of new initiatives should be to have users bear a larger share of health care costs. This does not necessarily mean that all fees for services should be raised substantially. Across-the-board increases, without discriminating among types of services, should be avoided; and changes in fee structures at government facilities may often need to be only one component -- perhaps even a minor one -- of broader reforms.

The theme of increased cost recovery from users should be pursued not only through fees for services but also through fees for coverage -- i.e., by encouraging increased application of risk-sharing arrangements. Schemes that combine both kinds of fees should be fostered. In such schemes, fees for coverage can generate most of the revenue needed to cover costs, while fees for services, in this case called co-payment or cost-sharing, serve efficiency objectives. Equity goals are not undermined because the coverage fees can be spread fairly across the entire covered population; and the service fees, relieved of having to be hefty revenue generators, can be relatively modest.

At the same time, tendencies to expand the public role in providing care should be dealt with, and public subsidies should be restructured to improve incentives. Unquestionably for certain types of services, there are compelling reasons for having government remain a primary provider. Included in this category, according to this paper's analysis, should be all of the "preventive -- other" group in Table S-1, along with many of the "preventive -- patient-related" group. Yet for most curative services, the arguments for public provision do not, on close inspection, stand up well. In general, developing countries, like most -- though not all -- developed countries before them, should begin to think about having government do less direct providing of care and more indirect financing and regulating of providers.

In all these choices, each new set of specific circumstances (the country setting, the types of health services, the health status of the target population, etc.) must be assessed in its own right, and new initiatives should be tailored to those circumstances. Nevertheless, on fees for services, a few further observations are generally applicable.

For curative services, few of the conceivable arguments against full efficiency pricing (setting price equal to marginal cost) appear compelling in light of the limited evidence available. It should no longer be automatically presumed, as many public officials have done in the past, that curative services should be free, or nearly so, unless extraordinary conditions favor otherwise. Rather, efficiency pricing should be the standard benchmark, and proposals for departures from it should have to be rigorously justified.

There is, however, one category of curative services--referral activities (all inpatient and some outpatient care)--where a different approach is needed. Significant increases in fees for referral services generally should not be undertaken until the broader complex of incentive issues surrounding public/private roles, risk-sharing, and the structure of subsidies have been effectively resolved. This is because referral patients are more influenced by provider advice than first-time patients are, and increasing fees can lead to inappropriate provider incentives unless combined with concomitant other reforms.

For preventive services, it is clear that as far as those in the "preventive -- other" category in Table S-1 are concerned, true user fees either are infeasible or, if viable, should be zero or negative. (Negative fees exist when users are offered incentive payments.) Many of these services have "public good" attributes: if fees were instituted, they would be widely circumvented by free riders, since it would be impossible to exclude those who do not pay from receiving the same benefits as those who do pay (e.g., when malarial swamps are cleared and everyone in the surrounding area benefits).

For the remaining group, "preventive -- patient-related" services, the case of efficiency pricing is stronger than in the non-patient-related case, but there still often will be plausible reasons for setting prices below the marginal cost benchmark. Charges are always feasible for these services, although issues relating to collection costs and administrative constraints are more questionable than in the case of curative services. Moreover, users do appear to be able and willing to pay for preventive services (according to the few empirical studies available) -- contrary to the common hypothesis that most households will pay only for curative services. However, due to externalities and users' lack of information, it is likely that private and social demand relationships are not entirely coincident for services such as immunization, most other maternal and child health measures, and hypertension control. Some of these services, especially immunization, have social benefits in the form of "transmission externalities" that the recipient families themselves do not necessarily care about. There can also be other external benefits associated with the prevention of disabilities, insofar as averting severe disability yields future savings in the support costs that communities, government programs, or extended families otherwise have to bear for

maintaining disabled individuals. In addition, users' knowledge and understanding about their need for, and the potential benefits to them of, these services often is below what the society they live in has decided all members should have access to.

Overall, certain curative services probably warrant higher fees than typically exist at present at government facilities. Preventive services require smaller adjustments. Most counties should concentrate on correcting their policies on the curative side first, not only because--as noted earlier -- curative care accounts for a large proportion of total expenditure but also because the underlying issues on the preventive side are more difficult and any adjustments may need to be more gradual.

Despite the data limitations, enough is clear to argue for action, by the Bank and borrower countries through dialogue and sectoral policy planning. The argument for increased cost recovery from users (for certain services in some circumstances) is not inherently different or more complex from that for other sectors, where similar data constraints exist as well. The economic principles appealed to are well known and widely accepted. Given what is known now, efforts could reasonably begin immediately to reverse prevailing tendencies toward curtailing user charges, particularly for general outpatient and selected inpatient services. The roles of public and private providers could be re-examined too. Much progress is possible in these directions before the question "How far is too far?" becomes critical; and the initial steps will help generate additional information needed in addressing that question.

I. INTRODUCTION

Throughout the developing world, the health sector^{1/} is in trouble, beset by conflicting pressures rooted in financial difficulties and resource allocation problems. Governmental budgetary support for health is faltering and in some cases actually declining in real terms, as countries struggle to exercise fiscal restraint in the face of poor economic performance and burgeoning debt. At the same time, ambitious promises continue to be made for rapid improvements in health conditions--calling for substantial increases in spending. Expectations of fundamental changes in the types of services provided (e.g., to meet WHO's "Health for All by 2000" objectives) clash with reluctance to shift funds away from established programs. Worse still, escalating costs threaten to erode past health gains.

As these pressures have mounted, the Bank has been called upon increasingly to provide advice on health financing and allocation questions through its lending operations and its country economic work. Experience to date in fielding these requests has highlighted a need to clarify Bank policies in two key areas:

- (1) What position should the Bank take with respect to alternative strategies for paying for health services? For example, under

^{1/} Defined as in Table 1, i.e., medical services (care of patients) plus disease control programs and related activities. Sanitation, though separate in Bank operations, is included in Table 1 because of its obvious relationship to health. Water supply, another separate but related area, is excluded because it has already been extensively covered elsewhere (e.g., Saunders and Warford, 1976).

what conditions and with what provisos should the Bank support increased application of user fees for health services? Or expansion of insurance or other risk-sharing schemes? Or changes in the public/private mix that might affect the financing of the sector?

- (2) What should be the Bank's stance on the allocation of expenditures within the sector? In particular, what response should be given to questions about how much should be allocated to primary health care as distinct from more costly hospital-based services? Or to preventive compared to curative, urban compared to rural, or vertical compared to horizontal services?

This paper focuses primarily on the first of these areas: financing. Conceptually, financing and resource allocation issues are, of course, closely interrelated; it is impossible to deal with the one effectively in operational settings without concurrently addressing the other. Moreover, of the two, resource allocation is in some ways more fundamental. Often one wants to know first how resources should be distributed and then how the necessary funds to support such a distribution should be generated. The present paper thus concentrates on one aspect of a broader problem. The resource allocation aspect is the subject of other ongoing work in the Bank.

The discussion is organized into three main sections, which (i) outline the nature of the problem, (ii) examine one issue--the role of user fees for services--in detail, and (iii) describe two other issues--on risk-sharing and the public/private mix--more briefly. The paper seeks to identify what the important questions are currently in the area of health financing in developing countries, and to sum up what is known and not

known about them at present. It does not purport to break new theoretical ground or to provide new research findings, and leaves the actual task of formulating proposed Bank policies to a subsequent effort; but it does present some conclusions and recommendations on a number of issues wherever the way seems clear.

II. NATURE OF THE PROBLEM

The problem of deciding how health services should be paid for is at one level simple and at another enormously complex.

At a general level, it is simple--because it is completely parallel to similar issues in other sectors, issues that already have been articulated and investigated extensively.^{2/} In health as elsewhere, opportunities exist to have the users of services pay for all or part of their cost through pricing mechanisms (e.g., fees for physician consultations or hospital stays; and charges for medicines). Opportunities also exist to draw on other funding sources instead or as well, including, most notably, subsidization from government revenues from general taxation. Decisions must be made about the appropriate combination of mechanisms and sources, taking into account considerations of efficiency and equity--as well as other possible factors such as overall national objectives (which may involve basic needs goals) and requirements to assure the financial viability of suppliers.

Still at this general level, certain basic principles for dealing with such problems are well known. One is that ideally each good or service should be priced so that the marginal social cost to users (counting both the fees they pay and any non-fee costs such as travel expenses) equals the marginal social benefits, after allowing for any distortions existing in other sectors. Because this criterion is difficult

^{2/} See for example, Acharya (1972), Anderson and Turvey (1974), Baumol and Bradford (1970), Feldstein (1972), Munasinghe and Warford (1982), Ray (1975), and Saunders and Warford (1976).

to apply directly, due in part to the fact that marginal social benefits and costs are not always explicitly observable, it can be helpful to try to proceed in a more approximate way toward the same end, by

- o first determining the strict efficiency price of the good or service (i.e., where price equals marginal private cost), and
- o then asking whether there are good reasons for departing from that price level.

Typical reasons that would need to be scrutinized carefully in each particular situation include: externalities, public-good or merit-good arguments, high cost of collecting fees, difficulty in metering consumption, market failures in other sectors, equity concerns, and supply effects. In some instances, this procedure might lead to prices much higher than those prevailing at health facilities today. In other cases, more modest prices, zero prices, or even negative prices (subsidies) might be called for^{3/}.

Yet it is a long way from advice at this general level to concrete practical recommendations on financing strategies for the varied circumstances that developing countries actually face presently. And when one begins to get to that second level--the practical level--the issues become immensely more complex. Should service X be exempt from strict efficiency pricing in circumstances Y? How can one develop guidance to aid planners in finding their way through the myriads of possible combinations of different services and different circumstances? This paper concentrates largely on questions at this second level, on the presumption that the

^{3/} The line of reasoning sketched briefly thus far will be returned to at greater length later.

general principles outlined above are already familiar and that the most critical need now is to assist countries in applying them.

What must one know about the health sector in order to make progress on such questions? The remainder of the current section summarizes several of the sector's essential features. Some are institutional, but a few are more fundamental, revealing intrinsic peculiarities of the supply and demand for health services. This is not to imply that the health sector is unique in some sense; all sectors have their distinctive attributes. But understanding the implications of those attributes can be critical.

BASIC FACTS ABOUT THE HEALTH SECTOR

Before exploring a number of subtler points, several preliminary features of the sector are worth noting.

First, the sector's "outputs"--health services--are extremely heterogeneous. Table 1 indicates the range of services provided.^{4/} Some, like environmental intervention (e.g., removing vegetation from stagnant waterways to control schistosomiasis) have pronounced "public good" aspects. Others have no obvious "public" or "merit" good attributes (e.g., Brazil's flourishing specialty in elective cosmetic surgery). Failure to discriminate clearly among dissimilar types of services has in the past been a major barrier to more effective analysis.

^{4/} General descriptive information on country-by-country expenditures in relation to gross national product and other public expenditure is provided in Annex Tables A-1 and A-2. The breakdown of expenditure across the service categories shown in Table 1 is discussed later.

Table 1. THE STRUCTURE OF THE HEALTH SECTOR IN DEVELOPING COUNTRIES: TYPES OF SERVICES AND PROVIDERS

	Central Government				Regional, Provincial and District Government Agencies	Local Government		Industry and Agricultural Enterprises Para-total and Private	Private Voluntary Organizations, Missions and Other	Private Practitioners: Modern and Traditional
	Health Ministry	Social Security Agency	Other Provider Agencies/...	Public Works and Other Support Agencies		Municipalities	Villages			
1. Personal services (care of patients)										
1.1 Through health facilities (hospitals, centers physician's offices, etc.)										
1.1.1 Outpatient				NA						
— general (mostly treatment of ill patients)				NA						
— maternal and child health (preventive care for children under five for pregnant and postpartum women)				NA						
— family planning				NA						
1.1.2 Inpatient				NA						
— general (bed and nursing)				NA						
— special services (deliveries, surgery, nutrition rehabilitation, etc.)				NA						
1.2 Village health care							NA			
1.2.1 Preventive	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1.2.2 Curative	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Disease control programs; can include, singly, or in combination:										
— vector control (e.g., spraying for malaria mosquitoes)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
— population prophylaxis (e.g., mobile teams fumigate or deparasitize whole villages)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
— environmental intervention (e.g., removing vegetation from stagnant waterways to control schistosomiasis)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3. Drug sales (to individuals by private or public pharmacies; including drugs sold or provided free as part of services in 1 above)										
4. Other Programs										
4.1 Sanitation										
— human waste disposal	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
— general sewerage	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
— inspection (e.g., of food purveyors and processors)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4.2 Education and promotion on health and hygiene										
— through institutions (e.g., schools)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
— through media (e.g., radio, posters)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4.3 Control of pests and zoonotic diseases										
4.3.1 in domesticated animals	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4.3.2 in wild animals	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4.4 Control of pollution										
— air	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
— water (e.g., from industrial sources)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4.5 Monitoring (e.g., for outbreaks) of communicable diseases										
	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Explanation of symbols: NA = service not offered by this provider category.

/1 E.G., defense ministries that provide health services for service persons; also police agencies, prisons and mental institutions that provide services for their employees and inmates.

Second, the sector's suppliers--health providers (and intermediaries like insurance systems)--are also exceptionally heterogeneous. Besides a variety of public and quasi-public agencies,^{5/} providers and intermediaries can include: employers with health plans, mission hospitals and clinics supported by religious organizations, several types of traditional practitioners, and an emerging private modern medical care sector. The resulting multiplicity of diverse service-provider combinations (as in Table 1) that can co-exist within a single country requires a broader approach to policy planning than central government health ministries often have taken to date.

Third, the appropriate role of government is a subject of some debate in the health sector. Should public institutions directly administer most health services or should private and quasi-public entities be the primary providers? In addition or instead, should government help finance health care indirectly--through explicit or implicit subsidies to private and quasi-public providers, or through transfers to individuals (e.g., medicaid programs)? Or should the principal function of public agencies be simply to regulate, monitor, and maintain quality control? Differing tendencies are evident in the limited data available (Table 2). Even in industrialized countries, sharply contrasting models exist, as illustrated by two otherwise comparable countries like the United Kingdom, where the public role in health services is extensive, and the United States, where it is much more limited. Furthermore, it has not helped developing countries that international organizations have not always

^{5/} "Quasi-public" refers in these pages to health care coverage through entities such as social security systems or publicly owned commercial enterprises.

Table 2. PRIVATE AS A PERCENT OF TOTAL HEALTH EXPENDITURE

<u>Country</u>	<u>Percentage/1</u>	<u>Country</u>	<u>Percentage/1</u>
<u>Developing Countries</u>			
Afghanistan, 1976	88	Pakistan, 1982	71
Argentina, n.d.	69	Philippines, 1970	75
Bangladesh, 1976	87	Peru, 1982	53
Botswana, 1978	48	Rwanda, 1977	37
China, 1981	32	Senegal, 1981	39
Colombia, 1978	33	Spain, 1976	39
Ghana, 1970	73	Sri Lanka, 1982	45
Haiti, 1980	65	Sudan, 1970	41
Honduras, 1970	63	Swaziland, n.d.	50
India, 1970	84	Syria, n.d.	76
Indonesia, 1982/83	62	Upper Volta, 1982	19
Jamaica, 1981	40	Tanzania, n.d.	23
Jordan, 1982	41	Thailand, 1979	70
Korea, South, 1975	87	Togo, 1979	31
		Tunisia, n.d.	27
Lesotho, 1979/80	12	Upper Volta, 1981	24
Malawi, 1980/81	23	Venezuela, 1976	58
Mali, 1981	54	Zambia, 1981	50
Mexico, 1976	31	Zimbabwe, 1980/81	21
<u>Industrialized Countries</u>			
Australia, 1974/75	36	Norway, 1976	4
Canada, 1975	25	Portugal, 1976	24
France, 1975	24	Sweden, 1975	8
Germany, West, 1975	23	Switzerland, 1975	34
Italy, 1975	9	United Kingdom, 1974/75	7
Japan, 1976	10	United States, 1974/75	57
Netherlands, 1974	29		

Source: Table A-3.

/1 Because sources use different definitions of "private," data for some countries are not directly comparable. See Notes to Table A-3.

attached high priority to questions of public/private mix in the past, despite the fact that the technical advice and funding they provide have far-reaching implications for government responsibilities--usually in the direction of expanding the public role.

Fourth, for government-run services, fees charged to users have generally been small or nonexistent. Fees presently recover under 15 percent of the costs of publicly provided health services in most of the developing countries where figures are available (Table 3).^{6/} Of course, full recovery is feasible in health for countries willing to risk adverse popular reaction. But few have been--so sensitive is health care as a political issue, overlaid with strong cultural or institutional forces as well as broad-ranging equity concerns.

Fifth, in the health sector, demand exists for "coverage" as well as services. Individuals desire and are willing to pay for protection and prevention against both ill-health and the cost of treatment. A rich array of risk-sharing, pre-payment, and insurance vehicles has accordingly begun to emerge in developing countries, although this tendency is far less advanced yet than in developed countries. Examples include not only social security systems but also employer-based coverage schemes, cooperative-based schemes, and community-financed plans. Increasing numbers of countries are now seeking information on the pros and cons of the various possibilities, and on the conditions required for success.

^{6/} Individually, some services recover a much higher fraction relative to their own costs alone. Also, cost recovery rates vary substantially across central, provincial, and local levels of government. For private services, cost recovery rates from user charges are much higher, although they still can be less than 100% on a sustained basis where funds are obtained from such sources as household payments into insurance schemes and foreign assistance to mission hospitals.

Table 3. REVENUE FROM USER CHARGES AS A PERCENT OF
EXPENDITURE ON GOVERNMENT HEALTH SERVICES

Country ^{1/2/}	% of Total Expenditure	% of Recurrent Expenditure	Notes ^{3/}
Botswana, 1978	2.5	2.8	
Burundi, 1982	3.3	4	For Health Ministry only.
Colombia, 1980	17.3	28.4	
Ghana, 1976/77	n.a	3	Total health as a percent of recurrent expenditure. Down from 5% in 1966/67.
Indonesia, 1982/83	12.9	15.5	All levels of government, excluding government employees' insurance scheme.
Jordan, 1982	10.9	13.2	Excludes Royal Medical Service sponsored by Defense Ministry, due to lack of data.
Lesotho, 1980/81	5.2	6	Down from 16% in 1974/75
Malawi, 1982	2.8	3	
Pakistan, 1980/81	1.5	2.5	
Peru, 1981	7.2	8	Percent of total (recurrent plus capital) expenditure. Down from 12%
Philippines, 1981	6.4	6.8	Health Ministry only. Down from 14% in 1978.
Rwanda, 1982	5.7	7	
Sri Lanka, 1982	0.6	0.7	Down from 3.0% in 1974.
Sudan, 1980/81	0.9	1.4	Central government only.
Togo, 1979	n.a.	6	
Tunisia, 1982/83	1.8	2	
Zimbabwe, 1980/81	2.0	2.2	All levels of government, excluding Parirenyatwa Hospital. Down from 10% in 1974/75.

Source: Ainsworth (1984), de Ferranti (1983), Laurent (1982), World Bank sector reviews and project documents.

n.a. = not available.

^{1/} For several countries not listed, insufficient data exist to compute a percentage, but other evidence implies that the figure must be either (i) zero because no fees are charged or collection is not enforced, or (ii) very small (e.g., under 2%) because fees are minimal or, again, collections is poor. Countries in this category include Angola, Bangladesh, Bolivia, Cameroon, Egypt, Gabon, Guatemala, Honduras, Jamaica, Liberia, Libya, Mali, Morocco, Nigeria, St. Lucia, Yemen (PDRY) and Zambia.

^{2/} In China, relatively high levels were found in reviews of the following selected areas: Shanghai County (26% for 1980); Yexian County, County Hospital (74% for 1981). See Prescott, 1983.

^{3/} Figures exclude quasi-public institutions (e.g., social insurance schemes).

Sixth, the health sector is notable for the enormous gap that has developed between goals and reality in the allocation of public expenditure. Despite widespread consensus that government health budgets are far too heavily biased toward urban, hospital-based care (with the result that curative services are stressed to the detriment of preventive services), there is little evidence that this bias is lessening. In many countries, hospitals account for over half of government recurrent expenditures on health. Concomitantly, only a small fraction of the rural population in the developing world (10 to 20% according to one 1978 estimate^{7/}) has effective access to medical care other than through traditional practitioners.

Seventh, the sector suffers from uncertainty and shifting policies concerning the broader allocation question of how much should be devoted to health in general compared to other sectors. As economic development leads to increases in per capita incomes, there appears to be a nearly universal tendency for the share of income devoted to health services to rise also.^{8/} At the same time, however, governments usually are under pressure as well to invest more in other sectors, to accelerate future growth. Difficult choices must be made, involving policy judgments about the importance of health not only as a consumption good but as a contributing factor to productive capability (including effects on population growth).

These seven distinctive features of the sector, together with others noted later, condition choices of financing policies in diverse ways, as will be apparent later.

^{7/} Abel-Smith, 1978.

^{8/} See Annex A-1.

THE RANGE OF POLICY OPTIONS POSSIBLE

Beyond the basic facts above, there also are distinctive features of the health sector relating to the range of policy options available on financing. These options are far more numerous and varied than is sometimes realized, in part because the underlying issues themselves are more complex than they first appear. Figures 1 and 2 help illustrate this point.

In Figure 1, a highly simplified view of the health sector is shown. From that perspective, the salient questions of interest are (i) how user fees for government services should be structured given prevailing conditions in the private sector, and consequently (ii) what proportions of the costs of government services should be covered by user fees on the one hand and taxes on the other.

However, Figure 1 fails to capture several key additional attributes of the sector. It overlooks risk-sharing arrangements completely. It does not take into account the linkages and flows of funds among (i) providers and (ii) other institutions that channel funds to providers. Consequently, it ignores the impact of financial intermediaries ranging from large social security systems to small community plans; and it omits the crucial distinction between public health facilities as providers and government as a source of funds subsidizing providers, both public and private. The precise form this subsidization takes (e.g., direct allocations from annual government budgets; grants; contracting for services; or reductions in the costs of inputs, such as drug prices or medical staff salaries) and the basis on which it is distributed (e.g., according to the amounts of services each facility provides, or "capitation" levels reflecting the size of the population the facility is

FINANCIAL FLOWS IN THE HEALTH SECTOR -- TWO VIEWS

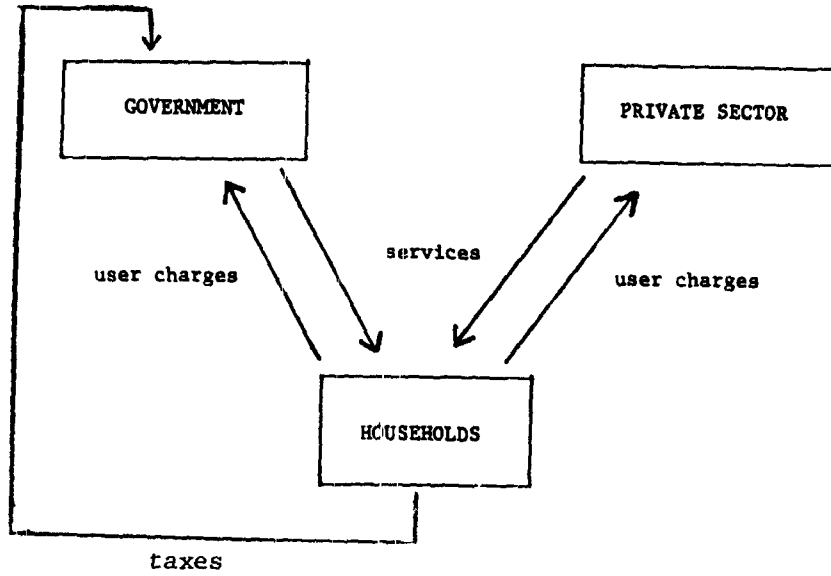


Figure 1

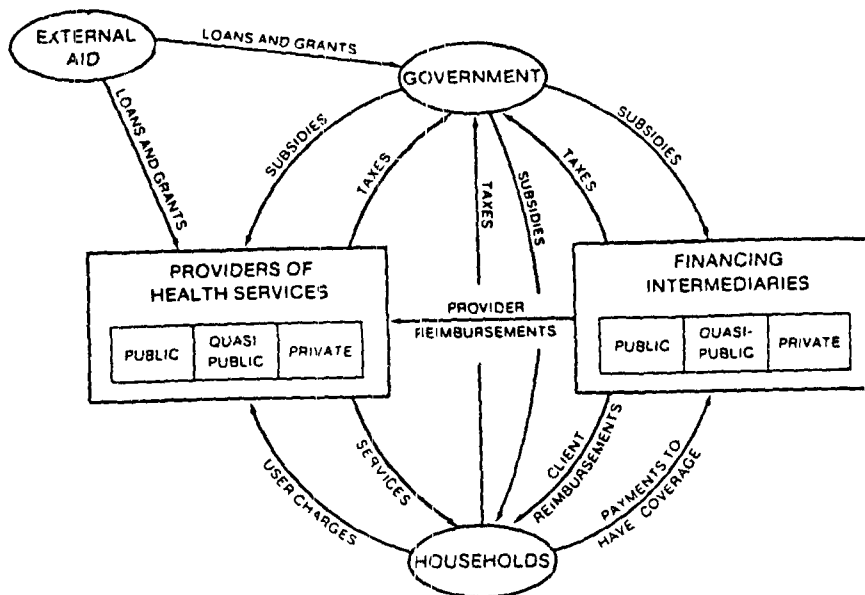


Figure 2

meant to serve) can have important efficiency and equity effects. In developed countries, questions about risk-sharing, provider-intermediary relationships, and subsidies have become as central to policy debates as issues relating to user charges.

Figure 2 is a revision of Figure 1 reflecting these additional considerations. Of course, not all countries currently have health sectors as complex as the example given there. Simpler variants predominate in the lowest income countries, where: (i) financing intermediaries may be few or little developed, (ii) private services may be mostly limited to traditional practice, and (iii) the flows between government and providers may consist solely of annual budget allocations passed through the health ministry and other official agencies. Yet as countries advance economically, socially and administratively, more intricate patterns emerge. As this happens, markedly dissimilar outcomes can result, in which some of the linkages in Figure 2 are expanded more than others and some may disappear entirely. What is most important here, though, is that all of the linkages shown are always potentially available to policymakers.

From the perspective of Figure 2, options exist at multiple entrypoints in a complex system, not just at the point where user fees enter. Choices must be made as well about the form and basis for diverse possible types of subsidies, and about the ways that participants of risk sharing schemes contribute into them (referenced in Figure 2 as "payments to have coverage"--on which more will be said later) and receive services or reimbursement in return. An even broader perspective would encompass other options too, summarized in the following overview list.

1. Improve the pricing of services.
2. Adopt new approaches to risk-sharing (i.e., improve pricing of "coverage").

3. Alter the structure of public subsidies, as manifested in
 - i. government budget allocations to public health facilities;
 - ii. grants and other support to private and quasi-public facilities;
 - iii. reductions in the costs of health services inputs such as drug prices or medical staff salaries.
4. Change the level of government spending on health services, through:
 - i. adjusting health's share of total public expenditure, and/or
 - ii. raising or lowering total expenditure.
5. Revise the level or content of external assistance.
6. Use the resources already available to the health sector more efficiently (e.g., improve the allocation of resources and strengthen institutions).
7. Alter the organizational makeup of the sector (e.g., change the public/private mix).
8. Expand or contract activities in other sectors that affect health conditions (e.g., increase investment in water supply and sanitation in lieu of or in addition to extending health facilities).
9. Reorient health sector goals to conform to resource limitations (e.g., reduce targets for facility construction).

The remainder of this paper concentrates chiefly on a few items on this list, relating to fees for services, risk-sharing, and the public/private mix. The treatment of fees is fundamentally different in character --longer and more specific--than the discussion of the other two.

This emphasis is necessarily selective, and should not be construed as a judgment that certain options are less worthy of consideration than others. If more were to be said about the remaining options, one obvious topic under item 6 (using available resources more efficiently) would be possible strategies for correcting the bias toward curative, hospital-based services. Another topic, relating to items 4 and 5, would be prospective trends in domestic spending on health and external assistance (Annex A provides a brief introduction on that).

Concerning item 3 (the structure of public subsidies), a fuller treatment would note that the nature and implications of subsidies, both as they exist today and as they could be remade in the future, still remain largely overlooked in planning and policy formulation. For example, in government health services systems, where the dominant form of subsidy is the budgetary funding that individual public facilities receive from higher levels, the approaches followed in determining what amount of support each facility should have, and how they can use the sums assigned to them, continue to result in poor incentives for managers at each level. Individual facilities have very little autonomy, and possible rewards for risking innovative action are minimal or non-existent, while the potential penalties (e.g., in career advancement) may be high. On subsidies to private services--such as grants to facilities run by religious organizations--many governments ignore the contribution that private providers can make to attaining overall health sector objectives. Few recognize the enormous problems that would ensue if extant private services (e.g., the mission hospitals and clinics in Africa) were allowed to disappear because of lack of funds, leaving public facilities to fill

the void. Subsidies have become a subject of much analysis in developed countries; the time has come when they should be investigated more comprehensively for developing countries as well.

SHORTCOMINGS OF EXISTING POLICIES

Existing policies have other shortcomings as well that must be taken into account when new options are considered. Serious deficiencies exist in relation to (i) efficiency, (ii) equity, and (iii) inability to generate sufficient revenue to meet perceived requirements.^{9/} Purists will argue that only the first two are fundamental, and that resolving revenue shortfalls is an easier matter. Country officials and many international institutions, on the other hand, see the revenue generation issue as a central obstacle to achieving progress in the sector, and by no means trivial to put right practice. Both have a point, from their differing perspectives.

On the revenue generation issue, attention has been drawn to:

- The large and growing gap between the resources required to meet planned sectoral goals and the projected availability of funds from all sources now and in future, if present policies are retained. For example, country studies that have costed out national health plans often find they cannot be afforded (e.g., Indonesia, Zimbabwe, Pakistan).

^{9/} For several views on the relative importance and the sources of the prevailing problems, see Abel-Smith (1978), Golladay and Liese (1980), Griffiths and Mills (1982), Mach and Abel-Smith (1983), Health Sector Policy Paper (World Bank, 1980), and the World Health Organization (1978).

SHORTCOMINGS OF EXISTING POLICIES

- A. On revenue generation, crises arise with respect to
1. meeting country goals for improving health (Now have growing gap between resource requirements and projected availability from public budget sources);
 2. resolving current underfunding of existing services (Now leads to low quality; also, to insufficient spending on maintenance-- requiring added investment cost to replace capital items prematurely);
 3. avoiding institutional crises that can burden government finances (e.g., social security agency with deficit needing to be bailed out by treasury);
 4. reconciling goals of maximizing investment for economic growth with the demands of health programs for public funds.
- B. On efficiency
1. present allocation of resources is poor (not enough for the most cost-effective services);
 2. operational efficiency also is low, due to problems in management, logistics, etc. (I.e., the "output"--quantity and quality--of services is low, given the levels of inputs used);
 3. existing financial policies, with heavy reliance on tax sources, hinder efficiency in economy overall
 - o some taxes used are highly distortionary
 - o some are costly to collect
- C. On equity
1. huge disparities exist presently in distribution of resources from budget sources (e.g., across provinces, urban/rural);
 2. advantaged groups benefit most (e.g., emphasis on hospitals aids higher income groups);

- The pervasive underfunding of existing health services administered by government authorities, resulting in diminished quality (e.g., when drugs run out) and increased investment costs (when inadequate spending on maintenance leads to replacement of vehicles, equipment and buildings ahead of their normal expected lifetime).
- The demands on public funds to rescue institutions that become burdened by deficits (e.g., some social security systems).

In all such problems, of course, what may be perceived as a lack of enough resources may in part stem from overambitious objectives. It is the mismatch between resources and the level of actual or desired expenditures that is important, not resource availability alone.

An example of how immense this mismatch can become on a global scale is suggested by present efforts being sponsored by the World Health Organization to extend primary health care along lines set forth in the "Health for All by 2000" initiative. According to one source (WHO, 1981), the additional resources required to meet these aims would be on the order of US\$50,000 million annually for the developing world as a whole, or over ten times the current total amount of official external assistance for health. This estimate unavoidably is highly speculative. Nevertheless, even under much more conservative assumptions, the resource "gap" is still enormous.

Yet efficiency and equity issues are in the end even more disturbing than the resource availability issue. Current methods of financing health services, with their heavy reliance on taxation, often adversely affect how efficiently resources are allocated and used, all the more so where taxes are distortionary or costly to collect. If, as often

happens, efficiency losses are accompanied by disparities in the distribution of services (e.g., across provinces, income or ethnic income groups, and urban vs. rural), equity also is diminished.

Underlying these tendencies is the fact that present financing policies typically have not been designed with much consideration of the incentives they create or reinforce, or of the ensuing impact on the behaviour of service providers, households, and government agencies. This is especially the case with respect to containing costs, utilizing cost-effective technologies, and minimizing inappropriate utilization of services (e.g., utilization by patients with minor complaints, impeding the handling of major cases). Lack of effective incentives in turn has hindered efforts to improve services through other routes, such as managerial and organizational initiatives aimed at institutional strengthening.

Still, the significance of the efficiency and equity issues depends on more than just the degree to which existing services are inefficient or inequitable. Also crucial is whether alternative financing policies would lead to something better. Answering that question is seldom easy, since some new policies would be an improvement in certain respects but not in others (e.g., better for efficiency, worse for equity). Yet in certain areas, as will be seen, reasonably strong conclusions are possible even with current data limitations.

III. WHAT ROLE FOR PRICING OF SERVICES?

In many countries currently, charging fees for health services is viewed with disfavor. Until very recently, there was a trend toward reducing or eliminating fees at public facilities in developing countries, and some governments have stated officially that health services should be free as a basic right for all their citizens. Nevertheless, fees continue to be widespread in the developing world. Most private spending on health is probably through user fees, if all forms of compensation to traditional practitioners are included; and private expenditure, as Table 2 showed, accounts for a large fraction of total health expenditure, often larger than in developed countries. Furthermore, public services, despite rhetoric to the contrary, do have charges in many instances, although the revenue obtained, as Table 3 indicated, usually represents a small proportion of total expenditures.

But what position ought governments to take on fees?

WHERE TO BEGIN?

Earlier, it was stated that in principle the price charged for any service or commodity in the health sector, as in other sectors, should be set so that the marginal social cost to users (counting fee and non-fee costs) equals the marginal social benefits resulting from consumption by that user of that unit of the service, after allowing for distortions existing in other sectors. Also, because that criterion can rarely be applied directly, due in part to the fact that social benefits and cost are not always observable, it may be necessary to try to proceed in a more approximate way toward the same end. To do this, one might:

- o first determine the strict efficiency price of the service or commodity (price equals marginal private cost),
- o then ask whether there are good reasons for departing from that price level.

When reviewing potential reasons for departing from the strict efficiency price in a particular case, one normally would need to consider a variety of issues. An attempt is made on the following page (List A) to summarize the key questions that policymakers might need to ask themselves when doing this. Although some of the questions are phrased broadly, all of the well known technical issues are present in some form, including, besides externalities, public-good and merit-good arguments, collection costs, equity concerns, and the possible supply response (in quality and/or quantity) to increase cost recovery.^{10/}

This general approach is sharply at variance with the conventional tendency in the health sector to assume services should be provided at no charge to users unless compelling reasons emerge to the contrary. Yet that tendency lacks a persuasive conceptual foundation. By starting, instead, with the strict efficiency price, one has a clearly defensible initial benchmark. If there truly are good reasons for setting prices below that benchmark (or at zero or below zero), it should be possible to show that convincingly. The alternative of using zero as a starting value is arbitrary and potentially can lead to incorrect policies.

But the main business of this section is to explore ways of making progress in applying the general principles on a practical level. How should countries proceed? And how can discussions such as the current one be most useful in aiding them in this work?

^{10/} The latter issue has been stressed in recent papers by Thobani (1983) and Birdsall (1982).

LIST A: QUESTIONS TO BE CONSIDERED WHEN POLICIES INVOLVING USER CHARGES ARE EXAMINED

A. How would households respond to increased user charges?

1. Ability to Pay. Would households have enough income/resources, especially lower income groups, to pay the charges? Would they be able to convert their resources to whatever form—cash or in kind—is required for payment? If special allowances (e.g., exemptions) were made for the poor, how would that affect conclusions for other questions below?
2. Willingness to Pay. Would those who can pay want to pay? How sensitive would household choices be to fee increases (i.e., what is their fee elasticity of demand)? Would they react differently with respect to (i) choices on whether to seek a service or not and (ii) choices on which provider to go to (e.g., public or private)? Would the fact that fees are only a part of the total cost of households of obtaining services (private costs, e.g., for travel or time, can sometimes be the major share of the total) be important?
3. For those who cannot or choose not to pay, what would be the consequences? For their health status? For their productivity and income?
4. For those who can and do pay, what would the effects be? (When they pay more to receive the same amount of services, their consumption of other items must decrease. What would they not consume and would there be any significant adverse impact—e.g., from lowered food intake?)

B. How would the supply of services be affected?

1. How much in additional resources would become available (both through (i) revenue from fees and (ii) the freeing up of resources that results when those who choose not to pay reduce their utilization of services)?
2. What would the added resources be used for? Would they be assigned to optimal alternative uses within the sector or be diverted elsewhere?
3. Would reductions in utilization when charges are raised be offset by increases resulting from improvements in the supply of services? Under what conditions might the user population as a whole, and various subgroups (e.g., the poor relative to the not-so-poor), be better off overall in a welfare sense?
4. Would changes in how resources are controlled and allocated be required to bring about efficient use of the added resources (e.g., abolish the practice of having all fee revenue go straight to the Treasury)?

C. Would there be special reasons for not increasing charges (concerning (i) divergences between private and social costs and benefits and/or (ii) the feasibility of administering charges)?

1. What externalities do these services have? How large are they? Is their presence a rationale for not raising fees?
2. Does the fact that households may have limited information or understanding of either their needs or the potential benefits of some health services make a difference? (E.g., when providers largely determine what services are required, as in inpatient medical care, are charges desirable?)
3. Are some services essentially "public goods," for which charges would not be workable? (E.g., for environmental interventions like draining malarial swamps, it may not be possible to exclude "free riders").
4. Would the collection cost or the administrative difficulties be too great.

D. Overall, would there be net benefits, and would they be large enough to warrant urging governments to assign high priority to developing and implementing new policies?

1. What would be the net effect on:
 - efficiency
 - equity
 - the gap between resource requirements and availability in the social sectors
2. In which of these three areas would the effect of greatest? Hence, what would be the main justification for the new policies?

Obviously, there are no simple formulas. Although much is known about calculating strict efficiency prices, the task of working through the questions in List A cannot be reduced to a routine manipulation of numbers. What is right for service X may be wrong for service Y, and what is appropriate for any service in circumstances Z_1 may be misguided in circumstances Z_2 . Furthermore, as will become more evident below, few of the questions in List A can be resolved as yet through rigorous hypothesis testing, since relevant data remain extremely limited. There is not yet, for example, a straightforward way of quantifying certain externalities of health services. Nor is it clear that there will ever be such methodologies.

The best that can be done at present on many key issues is therefore to explore them in a largely descriptive way--but carefully, and using evidence and experiences from country case study examples. The remainder of this chapter attempts to provide just that sort of discussion, drawing on findings and conclusions from country visits and extensive report reading.^{11/}

^{11/} Relevant (though not always complete and up-to-date) country study data exist for Argentina, Bangladesh, Bolivia, Botswana, Brazil, Burundi, Chile, China (parts of), Ghana, Guatemala, Haiti, Indonesia, Jamaica, Korea, Lesotho, Malawi, Malaysia, Mali, Nepal, Pakistan, Paraguay, Peru, Philippines, Rwanda, Senegal, Sri Lanka, Sudan, Tanzania, Thailand, Tunisia, Upper Volta, Zambia, and Zimbabwe. See references in de Ferranti (1983b). Other useful sources include Abel-Smith (1978), Mach and Abel-Smith (1983), Akin et al. (1982), Arrow (1963 and 1974), Barlow (1976), Barnum et al. (1982), Club du Sahel (1980), Creese (1979), Culyer and Wright (1978), Donaldson (1982), Drummond (1980), Dunlop (1982b), Evans et al. (1981), Golladay and Liese (1980), Gray (1982), Griffiths and Mills (1982), Heller (1975, 1978, 1982), Lee and Mills (1983), McLachlan (1982), Meerman (1979), Mesa-Lago (1983), Newhouse (1976, 1978), Olson (1981), Over (1979), PAHO (1970), Parlato and Favin (1982), Prescott (1980), Prescott and Warford (in Lee and Mills, 1983), Roemer (1971), Selowsky (1979), Sgontz (1972), Sorkin (1976), Stinson (1982), Tait and Heller (1981), Weisbrod (1961), World Bank ("Health Sector Policy Paper," 1980), World Health Organization (1975, 1978), and Zschock (1977, 1980, 1983).

Accordingly, each of the service categories identified in Table 1 has been reviewed one by one. In each case, all of the questions in List A have been considered. The results are summarized below.

Before beginning, though, a few preliminary points need to be noted. One is that some services within the health sector merit greater attention than others in debates about pricing, because resource use (and other indicators of magnitude and impact) vary substantially from service to service. In general, preventive services account for relatively small shares of the financial, human, and other resources consumed by the sector as a whole, while curative services absorb very large shares. A rough breakdown of total (public plus private) expenditure by major categories of service might look like Table 4. It should be emphasized that these figures represent best guesses only, based on imperfect country data that are not always directly comparable. With the same caveat, breakdowns on other dimensions of resource use--especially personnel--would probably be broadly similar in terms of the distribution among the three major categories shown.

Given this fact, it follows that whatever stance is taken on user charges for curative care will largely determine the degree of cost recovery for the health sector as a whole. Worrying about what should be done about policies for preventive services can thus be regarded, at least from this perspective, as secondary.

A second important preliminary point is that countries must take into account the roles and characteristics of private as well as public providers. While pricing policies for public institutions can be set by fiat, governments are far more limited in how they can influence choices by private and quasi-public entities. Policies for both kinds of providers

Table 4: COMPOSITION OF THE HEALTH SECTOR

Services ^{a/}	Percent of total expenditure on health ^{b/}
<p>Curative care</p> <ol style="list-style-type: none"> 1. Personal services (care of patients) by health facilities and independent providers, including traditional practitioners 2. purchases of medicines 	70 to 87
<p>Preventive services: patient related^{c/}</p> <ol style="list-style-type: none"> 1. maternal and child health clinics, at health facilities 2. community health programs (e.g., home visiting) 	10 to 20
<p>Preventive services: other</p> <ol style="list-style-type: none"> 1. disease control programs 2. sanitation 3. education and promotion of health and hygiene 4. control of pests and zoonotic diseases 5. monitoring disease patterns 	3 to 10
TOTAL	100

a/ From list in Table 1, exclusive of water supply.

b/ More precise estimates on individual countries are presented in de Ferranti (1983b). Due to definitional differences across countries, simple averages would not be meaningful.

c/ The primary services offered in this category (through the outlets listed--maternal and child health clinics and community health programs), and discussed below, are: immunization, oral rehydration therapy, growth monitoring, and promotion of breastfeeding and improved weaning practices. Another likely to be increasingly important in future is hypertension control. Oral rehydration therapy although strictly speaking a curative activity (treatment for diarrhea), can also be considered preventive--and will be here--because it has similar delivery system requirements and is essentially intended not to cure diarrhea but to prevent death from dehydration during diarrheal illness.

must be designed with an awareness of the opportunities available to households from the other. For example, planners for public facilities must consider the charging practices of nearby mission hospitals, and how existing practices affect utilization rates at both.

WHICH SERVICES? WHAT PRICE LEVELS?

A convenient place to begin is with the services classified in Table 4 as "preventive--other." This category, by far the smallest as a resource user, is comparatively simple to deal with and thus can be disposed of relatively quickly, clearing the way for then taking up the more difficult first two categories.

The "preventive--other" category can also be referred to unambiguously as "non-patient-related," since it consists exclusively of services to target areas or groups rather than to individuals singly. The other two contain only services to patients. Consequently, this section is divided into two main subsections--"patient-related services" and "non-patient-related services," with the latter discussed first.

1.0 Non-Patient-Related Services

Few advocates of user charges seriously propose that fees be instituted for non-patient-related services. Yet it is still useful to work through the reasons why--both to test that supposition and to clarify certain issues that also arise in the case of patient-related services.

To start with, it is significant that non-patient-related services, with few exceptions, involve no direct transaction (e.g., no face-to-face, one-on-one contact) between the provider and the beneficiaries. Furthermore, trying to arrange direct transactions would usually be either infeasible or extremely costly.

Consider, for example, the last two items in the "preventive--other" category: control of pests and zoonotic (i.e., animal) diseases; and monitoring of (human) disease patterns to aid in planning and in the control of epidemics. Providers of these services, typically public agencies, must have contacts with various other public officials and, in the case of the former, with owners of animals or property affected by pest infestation or wild animal attacks. Yet the ultimate beneficiaries of such programs are only identifiable vaguely as "the population in the target area." Any attempt to identify, locate, and visit beneficiaries individually would quickly become mired in intractable questions about how diseases would have spread without the intervention, who would have contracted them, and who might have benefited (e.g., children, if a parent is spared death or disability). Most beneficiaries do not even know they have benefited, or perhaps even that a service has been rendered on their behalf.

1.1 Exclusivity. If one then subjects services with this characteristic to the questions in List A, an obvious problem emerges right away: exclusivity is not assured. If a fee were charged for any of these services--other than a blanket charge levied on all residents of the target area (which then would be a tax not a true user charge)--there would be no viable way of limiting benefits to those who pay. Everyone would therefore have an incentive not to pay, since everyone stands to benefit the same whether they pay or not. The fee policy would collapse under the weight of unchecked free riderism. Fees simply are not feasible.

Given this constraint, there is little point, for these services, in exploring the remaining questions in List A in detail. On some questions, it is not inconceivable that user charges might look attractive

for certain non-patient-related services. Yet that, a fortiori, is moot: fees simply are not feasible.^{12/}

Some non-patient-related services, however, cannot be dismissed so easily. The first item in that category in Table 4, disease control programs, has two distinct components: (i) programs that involve vector control (e.g., using insecticides against vectors such as mosquitos that carry malaria or black flies that carry onchocerciasis) and/or environmental intervention (e.g., draining mosquito breeding sites or dredging waterways infested with schistosomiasis-carrying snails); and (ii) mass campaigns for immunizing or deparasitizing entire villages. The former is like control of pests and zoonotic diseases in that no direct transaction takes place between providers and beneficiaries. Thus exclusivity is a problem; charges, other than some form of implicit tax, are infeasible. The second component, mass campaigns, is different.

1.2 Mass Campaigns. In this case, providers do have contact with each recipient of the service (e.g., the child who is immunized and his/her parents).

There is, though, another feature of mass campaigns that conflicts with charging fees for such services. By definition, a mass campaign is an undertaking where there is a definite goal to try to immunize or deparasitize the entire target group in a given geographical area, missing no one. If, on the other hand, the intent is to offer opportunities but not influence individual choices strongly, the result

^{12/} Hypothetical examples can of course be concocted where charges would be feasible--e.g., if pest infestation were localized in households and its effects did not extend beyond the infested household. But these examples have little real world relevance.

would be not a mass campaign but a "mobile outreach effort," falling under one of the two patient-related categories in Table 4 (e.g., preventive maternal and child health services).

Charging fees in a mass campaign would risk reducing participation below the minimum threshold that is the campaign's target. One should probably therefore choose: either charge fees but then also just do "mobile outreach," or conduct mass campaigns but without fees.

There may, though, be a place for negative charges--incentive payments--in mass campaigns.

1.3 Sanitation Services. For yet another subcategory of non-patient-related services--sanitation--user charges are feasible in principle, but usually not desirable for several additional reasons. In many countries, the highest priority at present in the sanitation area is still the safe disposal of human excreta, to improve health conditions and make homes and communities more pleasant to live in. In places where that problem has been satisfactorily brought under control, emphasis can shift to disposal of other waste--e.g., household garbage, street trash, or industrial discharges. (Industrial discharges are not considered in the present discussion; there already is a rich literature on that subject, albeit mostly for developed countries.)

The benefits of sanitary waste disposal--especially the health benefits--acruer mostly to other individuals than to the one who deposits the waste. In the case of human excreta, the principal source of health benefits from improved sanitation is the interruption of transmission across individuals of disease-causing agents that depend for their dispersion and survival on fecal contamination of water, food, or surfaces that people touch. In this sense, one benefits from one's neighbors'

cleanliness more than from one's own. In a less precise way, the other benefits of sanitation also are largely external to the user. Eliminating the smells, flies (and other diseases they carry), unsightliness, and annoyance that result from one's own excreta, garbage, or trash may be worth little if others in one's immediate surroundings do not follow suit.

True, the benefits of sanitation are not solely externalities. A clean home in an unsanitary neighborhood may be preferred to an unclean home in the same neighborhood. Yet, the internalized benefits, being comparatively modest, may sometimes be offset by other factors--such as the fact that using sanitation services is often inconvenient and that facilities are unattractive (e.g., malodorous). This is particularly true in the many countries where pit latrines and similar low-technology solutions remain more cost-effective than piped systems and other enhancements.

Overall, considering the strength of the externalities argument and the possibility of partially offsetting internalized considerations, there is not a good basis for attempting to charge fees for sanitation services. Obviously, too, implementational obstacles--collection costs, metering, enforcement (gatekeepers for pit latrines?)--are another major problem. Negative charges conceivably could be desirable in concept; but implementation, again, looks troublesome.

1.3 Promotion and Education of Better Health Practices and Hygiene.

Regarding this last subcategory of non-patient-related services, a distinction must be drawn between (i) those services that entail face-to-face contact between participants and message-presenters, either individually or in small groups (e.g., mothercraft classes or village meetings) and (ii) those that rely on distance education methods (e.g.,

radio or distribution of printed materials). On the latter--where there is no individual contact--fees are generally not feasible. Health messages are too small a part of radio broadcast time to warrant special charges on radio owners, who in any case are only a small proportion of the total listening audience in developing countries.

On the former--where providers do have contact with participants--fees are feasible and actually exist in some cases (e.g., childbirth classes for prospective parents in developed countries). The fact that the service provided is the imparting of knowledge (including the acquiring of new attitudes or behaviors) lends a special character to this subcategory, but does not, ipso facto, argue entirely against pricing. If the society in question attaches little significance to the possibility that some individuals will not be willing to pay to receive health education because they do not fully understand the potential benefits, then strict efficiency pricing should prevail. Such might be the case for any ordinary good--say, olive oil (assuming that underconsumption of olive oil as a result of ignorance of its beneficial properties is not a burning national issue). On the other hand, if failure to avail oneself of public health and hygiene programs is seen by that society as detrimental, then a lower may be warranted.^{13/}

Are programs for teaching and promoting better health and hygiene in this latter category--i.e., do developing countries view them as merit goods? The willingness of virtually all countries, for as long as these programs have been in existence, to supply them through public agencies to

^{13/} See also the further remarks on merit goods below under "Do Users Know Enough?"

participants free of charge must be counted as some evidence that societies do view them as merit goods. Though other services also have been provided at no charge over extended periods, there is not the same consensus of international opinion. Nevertheless, a society that chose to charge for health education programs could have perfectly good grounds for doing so.

On a more pragmatic level, continuing the current custom of offering such programs at no charge may make sense for the practical reason that improvement of pricing policies for other (i.e., patient-related) services should have higher priority. Health education and promotion programs account for a very small portion of total health expenditure. There is merit to trying to rectify the substantial problems with policies for other services first--which most countries will find no small task--before coming to this naturally more controversial area.

1.4 Conclusions for Non-Patient-Related Services. Overall, for this category as a whole, it will frequently be the case that user charges either are infeasible or should be zero or negative (i.e., incentive payments should be offered).

2.0 Patient-Related Services

In discussing these services, it is convenient to address the questions from List A in slightly different format than given originally, using the subheadings: Are Charges Feasible?; How Would Utilization Be Affected?; Externalities; Do Users Know Enough?; and Equity--Further Comments. All of the issues in List A are discussed somewhere under these subheadings.

2.1 Are Charges Feasible? This subheading covers exclusivity, metering of consumption, collection costs, and administrative problems.

2.1.1 Would exclusivity be a problem? No. In every case among the services in the first two categories in Table 4, preventive as well as curative services, there is direct, individual contact between providers and patients. Charges are feasible. Free riders can be excluded.

2.1.2 Can the Amount Consumed by Each Consumer of a Service be Determined (the Metering Problem)? Yes. Time spent by physicians and other staff with patients is one common metric. Use of drugs, other supplies, and equipment (x-ray, operating rooms) is another.

2.1.3 Would Collection Costs Be Too High? There is no absolute standard for what is "too high." In some instances, fees may be appropriate even if the cost of collecting them exceeds the revenue realized. For example, this might be the case where improving resource allocation is an important objective of pricing policies.

Little data are available on collection costs for health services. However, rough calculations suggest that facilities large enough to have beds should be able to administer a simple fee structure at a cost per patient that is well below the revenue which would be collected under marginal cost pricing. The principal source of most collection costs is the additional clerical and accounting staff required. In country case studies where salary data for such staff are available and can be compared with the total costs of facilities and programs (e.g., Peru, Senegal, and Indonesia), collection costs probably would be below 10%--possibly even well below 5%--of revenues if marginal cost pricing were applied and no accounts were delinquent. Allowing for lower prices and for delinquency, these figures would be higher, but still reasonable. For smaller facilities, the ratio of collection costs to revenue depends critically on the extent to which (i) additional staff may not be required, (ii) some

functions can be handled at a higher level (e.g., reconciliation of accounts for subcenters can be done by the centers that supervise them), and (iii) fees are merely nominal amounts, far below marginal cost.

Overall, collection costs may be excessive in certain instances, but not probably in general.

2.1.4 Would There Be Insurmountable Administrative Difficulties? Opponents of fees maintain that the multiple problems involved in collecting, managing, and accounting for patient payments are overwhelming. Yet it is a fact that fees exist now in a wide variety of situations--public and private, hospital and clinic--in all parts of world (see earlier tables). Private facilities, even in extremely difficult circumstances (e.g., mission hospitals in some of the most impoverished areas of Africa), have demonstrated that the administrative issues are manageable. When public facilities have trouble, the source is usually not the fees themselves but rather the absence of effective incentives for hospital and clinic staffs to collect revenues and utilize resources efficiently. Revenues often revert completely to higher authorities, allowing no potential for the local facilities to utilize a portion of the proceeds to improve its services. There is an argument here for reforming management incentive structures, but not necessarily for steering away from user charges in principle.

2.2 How Would Utilization Be Affected? So, user charges definitely are feasible for patient-related services. But are they desirable? Before that multi-faceted issue can be addressed effectively, it is necessary to consider--among other things--how charges might affect utilization of these services. This involves questions about ability to pay, willingness to pay, and impacts on the supply of services.

2.2.1 Ability to Pay. The extent to which households would be unable to pay user charges, and thus would reduce their utilization of services, depends on both (i) their income levels in relation to the magnitudes of the charges and (ii) their degree of access to cash money or other accepted forms of payment. Invariably, there will always be at least a few households unable to pay. Even when services are provided at no charge, the very poor sometimes are unable to afford the non-fee costs (e.g., the cost of travel to and from a health clinic, or the opportunity cost of foregoing a day's labor).

The key question is consequently whether those unable to pay are a small or large proportion of the total. If the proportion is "small" (somehow defined--presumably reflecting the importance the country attaches to compensating for income inequity), the interests of the very poor can be protected through fee exemptions or discounts. (See later section on equity.) If, on the other hand, the proportion is large, the case for fees would need to be reconsidered.

There appears to be a wide range of situations where the proportion would probably not be large for patient-related services. Data presented earlier (Table 3) showed that existing fees are often small relative to wage levels. Higher fees, closer to providers' marginal cost, would still be affordable to most households. For example, if a US\$0.5 fee were charged for an outpatient consultation, households with a per capita income of US\$200 annually would require only one half of one percent of their annual income to reach the WHO norm of two consultations per person per year. A household with only half as much income (US\$100) would require one percent. Total household expenditure on health frequently is 3% or more of income currently, according to survey results given in Table A-1.

Of course, extended illness could still impoverish some families, particularly if there were fees for inpatient services too. However, such illnesses are relatively uncommon. (To cover them, systems of waivers and/or risk-sharing need to be considered--the same as in developed countries.)

Moreover, evidence on several countries, including Indonesia and Malawi, suggests that the implicit fees charged by traditional practitioners are much higher--by a factor of five in some instances--than prevailing public sector charges. Granted, the services provided are not the same, and households may be more willing to pay practitioners in whom they have long-standing trust than modern newcomers. Yet if the question is simply ability to pay, then clearly households do have the option of paying more for non-traditional services by cutting back on their use of traditional healers--and keeping the same overall outlay on health care.

Other information indicates as well that access to cash money or other forms of payment is less of a problem than has been supposed. Informal market processes exist in most countries to convert in-kind resources into accepted currency. Also, some health facilities will take alternatives to cash--such as food stuffs.

In short, it could not be said that ability-to-pay concerns are never a constraint in applying user charges; but neither is there evidence that charges have to be an intolerable burden.

2.2.2 Willingness to Pay. There is some empirical support for the proposition that demand for health care is substantially price-inelastic in developing countries currently, at least within the price ranges typically found in many countries. If so, then raising user charges would not, in general, reduce utilization of most patient-related

services substantially, although some noticeable shifts among alternative providers might occur.

A study that separately analyzed six types of outpatient services (adult curative, prenatal, deliveries, well-baby care, and infant immunizations) in the Bicol region of the Philippines found that, controlling for other factors, users were not sensitive to the fee level (Akin, et. al. 1982). The authors concluded that "the threshold above which costs would affect consumption behavior is apparently quite high" (p. xv). Within the range of fee levels observed, they found that increased charges would not affect either the total use of services or choices among alternative providers.

A Malaysia study, also examining several types of services (outpatient, inpatient, deliveries, and prenatal) and controlling for other factors, reached similar conclusions regarding the total use of services, but found that choice among provider is sensitive to price differences (Heller, 1976). However, the cross-elasticities were not large and not strongly significant statistically. A study for parts of Central Java in Indonesia (Ascobat Gani, 1981), working with more limited price data, obtained regression results suggesting that for certain sources of care (health centers and traditional practitioners), users prefer providers with higher fees over lower-cost alternatives--contrary to what Heller observed and to what conventional price theory would predict.

This apparently positive relationship between fee levels and utilization also has been observed in several country studies (e.g., Bangladesh, Cameroon, Ivory Coast, Lesotho, Rwanda, and Zaire), although similar data for Malawi and Tanzania imply the expected negative

relationship.^{14/} Since much of that evidence is anecdotal, and the influence of other factors has not been accounted for, it may not be significant. Nevertheless, one possible explanation is that users' perceptions of quality differences--whether real or imagined--dominate their concern about the cost of them. Underlying these perceptions may be fundamental problems at particular providers, such as unavailability of essential inputs (e.g., drugs), noted in studies on Mali by Ainsworth (1983).

If some of these findings are valid generally, it could be hypothesized that when households in developing countries make decisions about when to seek medical help and when not to, they are unaffected by fee levels (within the policy relevant range); but once they have decided to get help, fees influence which provider they select--though not, perhaps, enough to offset perceptions of quality differences.^{15/}

Willingness to pay, of course, may vary from one type of service to another. For example, one might suppose that if household heads are more willing to spend resources on curative care for adult male earners than on preventive services for infants, then demand for preventive care might be price elastic, even though curative care is not. However, the limited data available--such as the Philippines study just cited--suggest that demand for preventive care for mothers and infants is not very

^{14/} See country study references in Akin, et. al. (1982) and de Ferranti (1983b).

^{15/} In the literature on demand for health in industrialized countries, similar patterns have been postulated. Recent studies, including one controlled experiment in the U.S., have found statistically significant negative relationships between utilization and fee level, allowing for other factors. See summaries in Newhouse (1978) and van der Gaag and Perlman (1981).

sensitive to fee level. No difference has yet been documented between preventive and curative care on this point.

Much remains to be learned, but at present there does not appear to be good cause for arguing against user charges on the grounds that many users would be unwilling to pay and hence deterred from seeking care.

2.2.3 How Would The Supply of Services Be Affected? The revenue collected through user charges, together with the freeing up of other resources (e.g., clinic staff time) that results if utilization is reduced, can be used in diverse ways. If these resources are plowed back into improving the quality or quantity of the same kinds of services as the fees are levied on, the supply of those services increases. Thobani (1983) and Birdsall (1982) have explored the implications of such an increase for efficiency and equity.

However, in practice there is little guarantee that the extra resources will in fact be retained in the same services. Fee revenues usually revert now to general government accounts, and are not necessarily reassigned back to the health sector. Within the health sector, resources generated from, say, outpatient services may be used to buy more equipment for inpatient care. These allocation choices are determined largely by program administrators--even in the case of some private institutions (e.g., mission hospitals). The influence of market forces on allocation choices is often weak.

When the extra resources made available are diverted in this way to alternative uses (including, possibly, tax abatement), the efficiency and equity effects are more difficult to determine. The country as a whole, or certain groups within it, can be either worse or better off overall. It would simplify matters greatly, of course, if one could say

that, in most cases, the effects are positive and that for the few groups and few circumstances where the impact on efficiency or equity may be negative, the magnitude is small. But the evidence examined in this review does not show that. Nor does it show the converse. The most that can be concluded is that both net positive and net negative effects are possible.

Some may argue that this assessment of the quantity and/or quality responses to price increases does not go far enough and does emphasize the entire issue strongly enough. Yet while the issue is important at the general level of debate about why user charges can be useful in principle, there is less that can be said with certainty about it as one moves to the more practical level of trying to decide what to do for service X in circumstances Y, given the ambiguities surrounding what actually happens to funds made available for reallocation. Most of what can be said is fairly obvious: namely, that countries (i) should first think about what will or might happen to the additional resources made available by a fee increase before adopting it, (ii) should try to take whatever measures are necessary to assure that these resources--and all resources--are allocated cost-effectively, so that the potential gains in efficiency (and possibly equity too, as Birdsall has shown) are in fact realized, (iii) should cancel planned fee increases if there is unequivocal evidence that the reallocated resources would be poorly used, but (iv) should go ahead if there is reason to expect that efficiency would be enhanced.^{16/}

^{16/} Where efficiency would be served but equity not, there is still the possibility of discriminatory pricing to protect disadvantaged groups. This is discussed in the section below on equity.

Of special relevance here, though, is the further question of whether, in contexts where there could be efficiency gains, different services have different characteristics as far as the potential of achieving such gains is concerned. On that, hypotheses are plentiful (e.g., that reallocations tend to add more to curative care and take away from preventive activities); but there is not as yet any persuasive evidence demonstrating that a price increase for one particular service would indeed be more likely to boost efficiency than a comparable price increase for another service.

For the time being, therefore, there is not a case for exempting, or treating specifically, certain services in pricing policy planning on the basis of the expected efficiency impact.

2.3 Externalities. So far for patient-related services, no obvious candidates for departures from strict efficiency pricing have emerged. However, a few do in this and the next section, both of which deal in different ways with the question of whether full marginal cost pricing would lead users to consume what from their society's perspective might be considered the "wrong" amounts of services--too little of some and/or too much of others.

On externalities, it is frequently assumed, particularly among those unfamiliar with the health sector, that health services must have large external benefits. But a closer look suggests a different conclusion.

Benefits and costs that are external to users and suppliers of health services can arise for several reasons. On the benefit side, health services can influence the extent, pace, and virulence of disease transmission from the individual to others ("transmission externalities").

Second, and also on the benefit side, facilitating the recovery of a patient from an illness and averting disabilities or premature death can alter the lives of others in non-disease-related ways ("other-benefit externalities"). Families may be spared the loss of an earner; relatives who would assist at the sick bed may be spared the loss of work time; communities and enterprises may be spared the loss of a leader; and society at large may be spared the loss of someone who would have contributed a scientific or technological breakthrough.^{17/} Finally, on the cost side, purchases of inputs and sales of outputs can affect supplies and prices in other markets, through the same sorts of pecuniary and non-pecuniary externalities as can result from other sectors' activities.

2.3.1 Transmission Externalities. The practical significance of the first externalities differs between curative and preventive services. For most curative services, it is doubtful whether any reduction in transmission probabilities is achieved. Available technologies for treatment of most infectious diseases--ranging from common respiratory and gastrointestinal illnesses to more serious viral and bacterial diseases--rarely can be made effective before diseased individuals already have had maximal infectious impact on others around them. This is to some degree true in all countries (e.g., by the time strep throat is diagnosed and antibiotics have taken hold, a large number of individuals may have been exposed). But it is even more pronounced in developing countries where weeks or months may pass before proper treatment is received, due to the sparse numbers of facilities, the chronic difficulties in obtaining

^{17/} External benefits can be negative as well as positive--e.g., saving the life of a future mass murderer.

viable medicines, and the limited training of personnel. For other diseases and health problems, treatment technologies either are inherently unable to interrupt transmission (e.g., chemotherapy for the parasitic diseases--malaria, schistosomiasis, onchocerciasis) or transmission is not an issue (cardio-vascular disorders, cancers, injuries).^{18/}

Among preventive services, there is one--immunization--for which the transmission externalities can be considerable. Countless future generations were saved from the scourge of smallpox when immunization campaigns over the last decade helped eradicate that disease forever. Current immunization efforts for measles, polio, pertussis, typhoid, diphtheria and tuberculosis also can curtail the risk of infection significantly, although not yet to the epidemiological breakpoints required to achieve eradication.

Other preventive services that are patient-related have little or no transmission externalities. For example, growth monitoring of infants, antenatal and perinatal care, and instruction on breastfeeding and improved weaning practices benefit the mother and child receiving these services, but do not affect the health risks facing others. The same could be said about preventive programs for hypertension.^{19/}

2.3.2 "Other Benefit" Externalities. On these, one ideally would like to know the net present value of the contributions (social benefits net of social costs) that others besides the afflicted individual

^{18/} Far from diminishing transmission probabilities, curative services may in fact increase them, insofar as ill people congregating in cramped or poorly maintained quarters provide fertile ground for infection.

^{19/} Preventive, non-patient-related services do have substantial transmission externalities (e.g., earlier remarks on sanitation); but only patient-related services are being discussed here.

would have made, if that individual had not been ill or disabled or had not died early. This is not a concept that is easy to estimate. It also is not a concern unique to the health sector: one could also imagine comparable externalities from missed opportunities to educate a person, to irrigate his land, to electrify his home, etc. Usually, these externalities are assumed--with reasonably good judgment although little empirical basis--to be minor. By and large, there is no cause to treat health services differently--except in one special case.

The exception concerns preventable disabilities. Averting a disability that would seriously impair an individual's capacity to provide for him- or herself and dependents (e.g., blindness, mental retardation, paralysis) is not only an obvious (internal) benefit to that individual, but also yields important (external) benefits in the form of savings in support costs that would have to be borne by families, communities, and government programs. In some instances, the latter savings alone outweigh the cost to society of averting the disability; that is, the net present value of those benefits, less the social costs of programs that reduce the risk of disablement, is positive. Possible examples from among patient-related services include: immunization (e.g., to avert paralysis from polio); perinatal care, especially assistance at birth from trained birth attendants in a sanitary environment (e.g., to reduce the risk of complications such as oxygen deprivation leading to mental retardation); antenatal care (e.g., to avert low birth weight resulting in physical or mental handicaps); growth monitoring of infants for the first one to five years after birth, focusing on height for age and weight for age in relation to appropriate norms (e.g., to avert stunting, wasting, or subnormal mental development); and preventive measures for hypertension (e.g., for stroke).

On the other hand, several other types of health services would not necessarily meet this criterion, because either (i) the disease in question rarely results in long term disabilities (e.g., with diarrheal diseases, the patient generally either dies, in which case there are no future support costs, or recovers completely), (ii) the disease can be disabling but available technologies are not very effective in altering outcomes or the probability of disablement (e.g., Chagas' disease), or (iii) effective technologies exist but they are very expensive relative to the limited resources that the country has (e.g., chemotherapy cures for onchocerciasis).^{20/}

Charging fees for services that cost-effectively reduce the risk of severe disablement would not be a problem if they would not deter individuals from using those services. In fact, though, demand for the services is not likely to be totally fee-inelastic, despite the empirical findings above suggesting that elasticities for health care may be small. For example, fees charged for deliveries are reported to be a deterrent in some areas of Africa to women who are considering whether to give birth at home or in a health center. In general, in circumstances where both (i) demand is not totally fee-inelastic and (ii) positive external benefits are present (in the form of potential savings in support costs), fees may need to be set below marginal cost, or even equal to zero. The most likely candidates for this are immunization, antenatal, perinatal, growth monitoring, and hypertension control services.

^{20/} Because quantitative evidence on the benefits and costs of health interventions is very limited, any such classification of services largely reflects hypotheses requiring further analysis.

2.3.3 Externalities on Costs. On this third category of externalities, the comparatively small size of the health sector in economic terms (it is still less than 5% of GDP in most developing countries) limits the potential for major effects, either through input or output markets. This is not to say that important issues cannot arise, such as the foreign exchange implications of pharmaceutical purchases or the effects of physician employment policies on markets for skilled labor. However, there appear to be few instances where cost-related externalities justify differing user charge policies for some services relative to others.

In sum, then, externalities on the benefit side raise questions about the desirability of full marginal cost pricing for certain preventive services. Similar questions do not apply, though, to curative services.

2.4 Do Users Know Enough? Earlier, with respect to health education and promotion programs (in the discussion of non-patient-related services), it was argued that although users may not have complete information and understanding about their need for or the potential benefits of a particular health service, that fact should not have a bearing on pricing policies unless the society they live in attaches importance to minimizing the risk of having some individuals fail to seek the service as a result of not knowing enough about it. The notion that a society collectively wants, for certain goods (thereby identified as "merit goods"), to intervene on behalf of individual consumers to compensate for their presumed inability to act in their own best interest, is not easy to accept or deal with effectively in conventional pricing analyses. Yet to deny that such collective preferences are possible would be to ignore a pervasive and durable phenomenon in selected aspects of health care delivery.

In seeking a more precise definition of a merit good, one has several choices. One interpretation, often underlying a good deal of what might be called politicians' loose talk on the subject, is that society decides there is a minimum level (OQ in Figure 3) of certain health services which everyone should consume. Alternatively, other frequently heard arguments presume that society wants to guarantee that no one has to pay more than a certain maximum fraction of income to obtain these services (e.g., not more than OF, where F varies with the individual's income level). Both these interpretations imply a stronger interventionist role by "society" than many observers would feel is necessarily apt. There may be agreement, they would say, that some users lack important information and understanding, but not that someone else can or should correctly divine what is best for them. To avoid confounding the lack-of-information element--which should be included--with the "big brother knows best" element--which should not--it is necessary to move to a third interpretation.

The third interpretation focuses on the shift in the individual's demand curve that may occur when he or she acquires more information and comprehension. Assume that initially demand is DD in Figure 3 and then moves to D_1D_1 after new information is absorbed. D_1D_1 can in principle be either right or left of DD; but if society is correct in supposing that users would want to consume more of the service if they knew more about it, D_1D_1 will be to the right.

Around any prevailing demand curve DD there will typically be a family of alternate curves like D_1D_1 , corresponding to the possibly infinitely many different levels of knowledge and understanding which the individual is capable of attaining. Suppose he or she currently does not

Figure 3

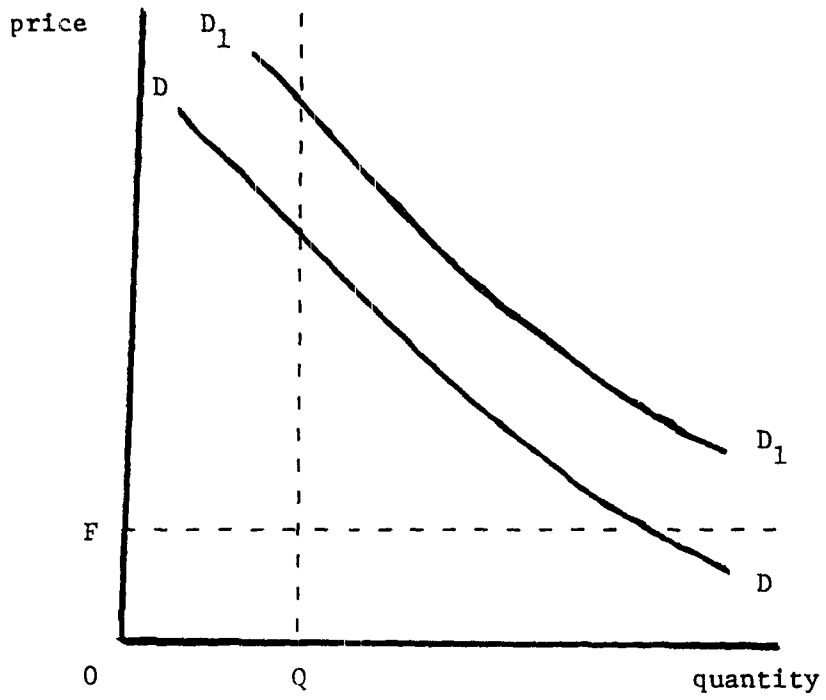
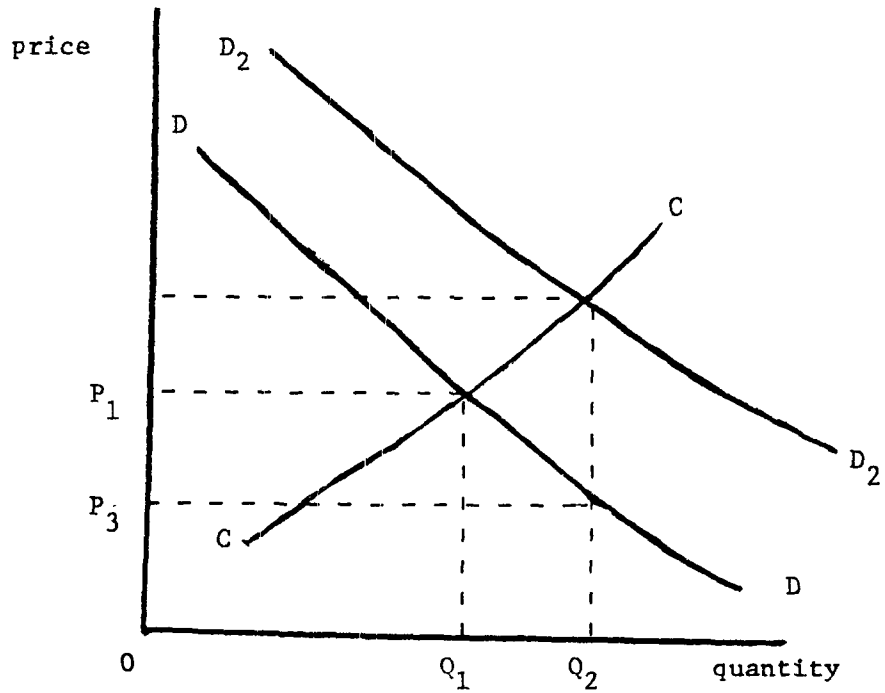


Figure 4



know certain facts or concepts which society considers crucial for everyone to know about the service and the health problem it addresses (if society does not care, the service is not a merit good), and that if these facts or concepts were known, demand would shift from DD to D_2D_2 in Figure 4. The optimal level of consumption for this individual, given society's concern about information, is OQ_2 , where D_2D_2 intersects marginal cost CC . But if strict efficiency pricing is applied and thus price is OP_1 , only OQ_1 is consumed, because the individual's current prevailing demand is DD . In order to raise consumption to OQ_2 , price must be lowered to OP_3 .

Yet how does one find D_2D_2 --the benchmark for this analysis--from all the myriad of other possibilities in the family of alternate demand curves? Or to put it another way, how does one know which level of knowledge and understanding is, from society's perspective, optimal for this individual. In theory, there may exist a maximum level that the individual can achieve within a given time period, given his or her prior knowledge and capabilities as well as the limits of scientific and technological advances in the field. However, this maximum, if it exists, is not necessarily an optimum, since the costs of transferring all this added information effectively to the individual must be considered. What society in fact should want is that the individual achieves the highest level of knowledge and understanding attainable in each time period, up to the point where the marginal social cost of efforts needed to raise the level still higher would exceed the marginal social benefit. If this criterion were followed, there is no reason why, in principle, one could not compute the reduction in price (from OP_1 to OP_3) required to raise consumption to OQ_2 .

In practice, of course, it is never possible to carry out all this work completely and precisely--much less even estimate prevailing demand DD reasonably well. Yet what one can do constructively is to proceed in that general direction in a more approximate way, by asking questions of the following sort for each service separately:

- (i) Are there some simple but crucial facts or concepts about the service, or about the health problem it addresses, that a nontrivial proportion of the target population apparently has not been exposed to or does not yet fully comprehend? Only facts or concepts that can be easily grasped even by individuals with no formal education should be considered here. For example, the concept that infants suffering from severe diarrhea need liquids (preferably, oral rehydration solution) is both simple and crucial, but mothers do not need to comprehend the biochemical reasons why.
- (ii) If these basic facts or concepts were more widely known, would demand for the service be different? Would the shift in demand lead to changes in either the health status of members of the target population or some other aspect of their welfare (e.g., would they have more or less disposable income for other uses)? Or would these consequences be too small to worry about? In the diarrheal illness example, demand for services involving the sale or administration of oral rehydration salts is nonexistent among mothers who are unaware of the need for fluid replacement. But once that concept is accepted, demand for such services can be considerable. The effect on health status can be a

substantial reduction in death due to dehydration among infant diarrhea cases--a major source of deaths in most developing countries.

- (iii) Could these basic facts and concepts be transmitted to the target population successfully and at reasonable cost? Programs that seek to educate populations in health and hygiene or to promote better practices have not always been effective. Some facts or concepts, even though inherently simple, may be able to be conveyed with lasting impact only at costs that far exceed the likely benefits. For example, convincing entire populations to drastically reduce their rates of smoking and other tobacco use is for the time being not realistically possible in some countries, except at unthinkable expense. In cases where essential facts or concepts cannot be cost-effectively transmitted at present, one should ask whether any lowering of price below the strict efficiency level is really warranted. There is a knotty issue here: Is a "lack" of knowledge or understanding truly a lack if there is no cost-effective way of rectifying it currently?
- (iv) Is there a plausible explanation for why these basic facts and concepts have not already been acquired by the target population, through self-discovery or contacts with health providers or other individuals? (This question is included primarily to help safeguard against overuse of the lack-of-knowledge-and-understanding argument. If there is not a good explanation for the target population's ignorance

on a particular point, then the presumption of ignorance may be incorrect.) Viable explanations could include: (a) recent technical advances have not had sufficient time yet to filter through to the population at large or to remotely located groups (e.g., oral rehydration therapy is less than two decades old; some vaccines are even newer); (b) the staffs of health provider institutions in some areas, particularly rural districts, are not yet themselves aware of certain basic facts or concepts, due to inadequacies in the training they received or, again, to the recency of new developments; (c) cultural barriers (e.g., recommendations for improved weaning practices may conflict with long standing traditions and beliefs); or (d) intrinsic features of the new facts or concepts may hamper acceptance of them (e.g., vaccines or medicines that require multiple doses at specified intervals call for a level of patient compliance that often is not forthcoming).

If a review of the available evidence suggests that on all of these points there are solid grounds for believing that an exception to strict efficiency pricing is warranted, then lower prices should be advanced accordingly. However, if there is doubt on any one point, an exception may be inappropriate, at least until that point can be investigated further.

Applying this logic to each of the patient-related services listed in Table 1 yields the following conclusions.

2.4.1 Curative Services. On curative services, it is necessary to distinguish between those typically provided (i) at the first contact

that a patient has with the health provider for a given new affliction, and (ii) after the first contact--in follow-up visits and on referral. For first-contact services, which cover some but by no means all outpatient activities, patients and their families must decide by themselves whether or not to seek care; health providers are not involved yet. For referral services, which include all inpatient care as well as the remaining outpatient activities, the advice of providers may significantly influence, or in some cases completely replace, decisionmaking by the patient.

2.4.1.1 First Contacts in Curative Care. In the case of first-contact services, there is no clear evidence that, in general, potential users lack crucial facts or concepts they need to know about what health providers can do for them. What they need to know, for most part, is simply that when illness or injury occurs (other than obviously minor and self-correcting problems), one should seek medical help. And no more universally accepted criterion for individuals to follow in assessing when to seek help has yet been developed than: be guided by the degree of pain or other symptoms of abnormality that the patient feels--or in other words, "Get help if it hurts or annoys, wait and see if it doesn't." Few health care systems expect, and few providers would advocate, that patients and their families usually should attempt to acquire and apply more technical knowledge in the pre-first-contact phase of a problem.

This practice is not flawless, of course. Some individuals are better than others in judging when a problem will be minor and self-correcting and when, on the other hand, assistance is needed. Inefficiencies in the delivery of health care result from the twin errors represented by mildly ill patients who seek care but do not need any and seriously ill patients who should seek it but stay away. However, there

are limits to how far these errors can be minimized without reacting other difficulties. Encouraging greater self-diagnosis and self-treatment, for example, would increase risks of mishandling of health problems, even in developed countries where educational levels are high.

In sum, given that users do not need to know more than they learn from personal experience, first-contact services do not meet even the first of the four tests above to qualify for below-marginal-cost pricing.

2.4.1.2 Referral Services in Curative Care. Referral services are more complex. Users are likely to know less about the nature and effects of referral than first-contact services because the technology is more complicated. At the same time, the patient's ignorance is compensated in part by the involvement of the provider in the decisionmaking. However, this involvement fundamentally alters the structure of demand for the service.

Instead of representing the individual user's own thinking exclusively, demand relationships reflect a combination of the thought processes of both the patient and the provider. If the provider's interests could be counted on always to be completely identical to those of the patient, this would be no problem. Yet in fact they may not be. Providers face different incentives. The incomes of physicians and paramedical staff, from salaries and/or their institution's retained net earnings, may depend on the volume of service provided. While the most familiar instance of this is when private practitioners rely entirely on fees for services, it can arise in other contexts too. For example, public facilities may be reimbursed by higher government agencies on the basis of reported actual quantity of services rendered (e.g., number of surgical operations performed), or staff may receive unreported side payments or

donations from patients. In addition, career advancement may depend on expanding utilization of a service; and it is even possible in some instances that a practitioner's zeal to do the maximum possible to save a life or cure an illness may entail more tests, treatment, or expense than the patient would choose.

These particular incentives all imply a potential provider bias toward giving patients more services than may be in their best interests, a hypothesis that in developed countries has come to be discussed under the heading of "supplier-induced demand." Yet there can also be incentives in the opposite direction. Staff at public facilities who are lowly paid and would gain little or nothing, either financially or in recognition or career advancement, from improving their facility's performance and efficiency may simply be eager to get through their daily rounds quickly. The organizational and managerial customs that might lead to this snuffing out, under unimaginative bureaucracy, of individual initiative are far from uncommon in many developing countries. Moreover, in countries where professional staff at public facilities can have a private practice on the side, there can be an incentive not only to "get through" quickly at the public facility but also to undersupply services there in order to deflect more patients to one's private office hours.

Some observers, drawing mainly on the experience of developed countries with these issues, have argued that all referral services ought to be provided to all users free of charge. They maintain (i) that users have insufficient knowledge to judge by themselves which referral services they should receive and in what quantities, (ii) that providers, if no fees were charged, would make appropriate decisions, and (iii) that fees, far from fostering better resource allocation in this case, would actually have

a negative effect, by deterring patients and providers from doing what is best for both the patient individually and society overall (considering the social benefits and costs involved). However, this argument fails to take into account the full range of incentives just mentioned. Merely removing fees from the picture does not guarantee that providers will generally be "right," given that other important incentive forces can remain, relating to how government reimbursements or funding allocations of public facilities are determined, how career advancement occurs, whether patients would make side payments, whether institutional arrangements encourage or stifle initiative, and other issues.

Moreover, even if incentives concerning providers' financial and other wellbeing could somehow be completely neutralized, zero-fee policies for referral services could have another drawback. When providers do what is best for the patient personally, the result may not be coincident with what is best for society. To serve the patient's interests well, the Hippocratic Oath enjoins providers to continue administering additional care as long as there is some net benefit to the patient.^{21/} Yet this goal may be excessive from society's perspective, since it can lead to providing some services that "cost" society more than they yield in benefits (i.e., the marginal social benefit is less than the marginal social cost--implying that greater overall welfare could be achieved by using the same resources for other purpose instead). Fees, while not a flawless means of signalling

^{21/} Interpreted from a strictly medical viewpoint, this criterion could mean: as long as the marginal private benefit in health status alone is greater than zero. An alternative interpretation is: as long as the marginal private benefit in consumer welfare (not just health but everything) is greater than the marginal private cost. The marginal private cost, in the absence of fees, consists of non-fee costs such as the patient's time and travel expense.

resource scarcity to both providers and users, can nonetheless help curtail some excesses.

At the same time, it could not be said that zero-fee policies, or some other relaxation of full efficiency pricing, never are warranted for referral services. Indeed, in many countries currently, a sharp shift toward higher fees for these services, without broader reforms taking into account the totality of incentive problems at issue, could have different consequences than hoped for--possibly more detrimental than beneficial. Besides several obvious questions flowing from points above (e.g., what would be the impact on provider incomes, and the implications for resource allocation?), there would be a fundamental additional issue. namely, if users suddenly face much higher charges before risk-sharing mechanisms have had time to reach a larger percentage of the population with expanded forms of coverage, substantial numbers of patients for referral services might have to choose between going without care or suffering financial ruin.

This last problem stems from the fact that the unit costs of referral services tend to be very high, relative to costs for first-contact services (e.g., a hospital stay with surgery, compared to a fifteen minute outpatient consultation). Thus, although events requiring expensive referral services may be rare, their impact on the patient unfortunate enough to need care can be crippling--financially, or otherwise.

There is no theoretical reason why societies necessarily should always be disturbed by this prospect, but it is an empirical fact that they typically are. No country consciously has chosen policies that do nothing to aid users in defraying the enormous costs incurred for treatment of catastrophic illness. There is, in this tendency, a merit good argument

generically different from the concepts discussed earlier, because it is unrelated to users' level of knowledge and understanding. Even if all users were maximally informed (and thus all at demand curve D_2D_2 in Figure 4 instead of DD), most societies probably would not want to expect all users of referral services to bear the entire cost by themselves.^{22/}

Given all this, it must be concluded that referral services do qualify for below-marginal-cost pricing in some situations. In many cases, the rationale may be essentially pragmatic: other, broader reforms must be developed first. But low fees may also be required even after broader reforms have been implemented, if these reforms call for some form of protection for users against high referral care costs (e.g., through risk-sharing) on merit-good grounds.

2.4.2. Preventive Services. This leaves only the preventive services still to cover. For them, lack of information and comprehension among the target population typically is much more critical than in the case of curative services. The patient is well, not sick; the decision-maker (e.g., the mother, if the patient is an infant) must know enough to want medical care despite the absence of any sign of pain or discomfort to be relieved, or of the constant reminder and worry that goes with having an ill person in the house. Interest in receiving care must overcome evidence that no concrete benefit is visible in the short run and that, on the contrary, the patient may feel worse (e.g., after certain injections).

^{22/} There are a few exceptions of course, such as countries where social policy is virtually non-existent due to internal turmoil or war. Also, in centuries prior to the present one, attitudes may obviously have been very different, considering that the medical interventions possible were fewer and less efficacious.

The effect of these factors on demand can be substantial. When most of the target population is unaware or doubtful of the potential merits of a preventive service, demand for it is virtually non-existent. Yet when understanding increases, demand shifts outward significantly--as is abundantly evident in areas where mothers now travel long distances and wait long hours to attend maternal and child health clinics for well babies.

For many of the major preventive services currently feasible on a large scale in developing countries--including immunization, oral rehydration therapy,^{23/} antenatal and perinatal care, promotion of breast-feeding and improved weaning practices, and hypertension control--the facts and concepts that users need to know are simple and can be communicated to the target population easily and at reasonable cost. This, of course, is no coincidence: many other conceivable patient-related preventive services have not become priority activities precisely because they are not readily implementable.

In principle, therefore, preventive services, or at least the most prevalent ones, meet all of the preliminary requirements noted above for concluding that an exception from strict efficiency pricing is justified. The main remaining question is: how much do the target populations know already? If they are already well informed, the shift in demand indicated in Figure 4 has taken place in the past, and no further compensation for lack of information is needed. On the other hand, if

^{23/} As in Table 4 (see Notes there), oral rehydration therapy is classified here as a preventive service, although it could also be considered a curative activity.

awareness of crucial facts is still limited, there may be a case for low, zero, or negative prices.

On immunization, the existing level of user knowledge appears to be highly uneven. In some parts of the world (e.g., Asia more than Africa, even the poorest and least educated are strongly likely to know enough about the potential benefits of immunization to be able to reach informed decisions. In other, usually less economically and socially advanced areas, ignorance of basic facts about immunization--especially the importance of going back for required second and subsequent doses of multiple dose vaccines (measles)--continues to be widespread. Coverage levels for most vaccines in these areas, even after adjusting for problems on the supply side, remain low.

On other patient-related preventive services, users generally know less. The possible benefits of good antenatal and perinatal care including the advantages of supervised, sanitary childbirth relative to traditional practices, are not widely comprehended. Growth monitoring of infants and other non-immunization services provided through maternal and child health clinics remain a mystery to many parents, although experiments have found that mothers take an intense interest in their children's growth charts when the purpose is explained to them.

2.4.3 Conclusions on Whether Users Know Enough. Preventive services, all in all, do seem to merit exempting from full marginal cost pricing. For different reasons, referral services in curative care may too in many instances. However, first-contact curative services in general do not.

2.5 Equity: Further Comments. At a general level, the effect of fees for services on equity is intrinsically ambiguous due to two partially

offsetting considerations. The first is that fees are obviously regressive compared to some alternative financing methods such as a graduated income tax. From this perspective, fees diminish equity, insofar as the distribution of income among rich and poor (after health services have been paid for) is more unequal than under other possible policies. The second is the point of Thobani (1983) and Birdsall (1982) noted earlier, implying that if the revenues collected from fees are used to increase the quantity and/or quality of basic services, many of which benefit the poor most, then the net effect of fees can sometimes be to improve equity; but this depends on how the funds are used precisely and on other conditions.

Moving, now, beyond these general considerations, can viable fee policies be devised that, without losing the efficiency-promoting benefits of raising fees above the currently very low levels, would avoid making the poor worse off overall? To achieve this aim, a country would typically need to include special provisions in its fee policies to allow for discriminatory pricing, in which different subgroups of the population would face different prices (or other determinants of the supply of services).

2.5.1 Protecting the Poor Through Discriminatory Pricing. To a degree, such provisions exist already, enabling low income groups to receive some services free or at a reduced price. One common though seldom officially documented example is the tendency for some providers, particularly at small facilities or in rural areas, to assess, informally on their own subjective judgment, a patient's ability to pay and then to require no payment from those who appear too impoverished. In some countries, more formal income tests exist, relying either on self-declaration by patients (usually not a highly successful method) or

presentation of documentation authorized by the patient's village headman or other community leader. Far easier administratively are systems that discriminate among different parts of a country geographically (e.g., facilities in predominantly poor rural areas have one fee, those in urban districts have another).

These options, however, are only the beginning. A host of additional possibilities exist whenever a given service can be offered with more than one level of convenience or comfort to users. For instance, inpatient accommodation is offered in general wards or semi-private rooms (or even more alternatives, ranging from 20 or more patients to a room, to one to a room) in many countries. The quality of medical care may be the same, but patients enjoy greater or less privacy. Not infrequently, the fees charged at present for more private rooms are much further below the marginal cost of providing that sort of accommodation than the fees for general wards are below their marginal cost. Consequently, the generally more affluent patients in more comfortable rooms may implicitly be subsidized in part by the less affluent in general wards. Strict efficiency pricing in this case, by eliminating that subsidy, would improve equity. Yet a discriminatory pricing scheme might also be considered that, while assuring that inpatient care as a whole is efficiently priced, would allow for cross-subsidization in the opposite direction--requiring the more affluent who elect semi-private care to partially subsidize the general ward patients. In private hospitals in Indonesia where this is done, the cross-subsidization is large enough to support provision of free accommodation for indigents. These and other schemes distinguishing among convenience and comfort levels can turn a potentially anti-equity strategy into one that is pro-equity, as long as there are guarantees that patients who choose the minimum level of comfort are not short-changed medically.

Overall, there is some evidence that feasible methods exist for raising fees generally while also, through discriminatory pricing provisions, protecting the interests of the poor. But examples are not yet widespread and more information is needed on precisely which methods work best (or work at all) in which circumstances. More needs to be known especially about the extent to which particular types of policies involving discriminatory pricing (such as the inpatient accommodation example) would affect both cost recovery and efficiency.

2.5.2 Other Equity Issues. Before leaving the general topic of equity, two other issues relating to equity should also be mentioned. Both were raised in List A:

- o If fees were increased, would those who cannot or choose not to pay suffer significant adverse consequences in their health status or other aspect of their wellbeing (e.g., income)?
- o Would those who do pay suffer adverse consequences too, because when they pay more for health services they have less disposable income left for other uses (e.g., less to spend on food)?

Taking the second of these questions first, the magnitude of the fee increases is clearly crucial. However, even under assumptions that presume the increases would be very large relative to current levels, it is unlikely that the additional expenditure by households on health care would absorb more than an extra one percent of disposable income. (Current total household expenditure on health is in the vicinity of three percent, according to the figures in Annex A.) The resulting reductions in other consumption would probably thus be very minor--too small to suppose that,

say, food intake or some other essential requirement would be cut drastically.

On the first question, one cannot rule out entirely the possibility that a few individuals, by being deterred by increased fees from seeking health care, will suffer some form of loss in health status and, because of that, in income or some other aspect of their welfare. However, the number of individuals sustaining such losses, and the size of the losses, may be minor for several reasons. First, as has already been noted, fewer individuals would be unable and unwilling to pay than is commonly believed. Second, events leading to health losses--illness and accidents--are relatively rare; and those that are not self-correcting or that have serious lasting impact (e.g., disability or death) are even rarer. Many visits to health providers are for temporary afflictions like viral infections. Third, among the set of health problems which are serious, many cannot be influenced efficaciously by the kinds of health providers that are available to large parts of the populations in many developing countries (e.g., a rural clinic can do little for heart patients). None of this is conclusive, but it suggests that the issue of whether higher fees would hurt health status may be less significant than it first seems.

SUMMARY

The conclusions of this chapter suggest that the health service categories identified in Table 1 fall into three groups (see following page or Table 4) with respect to pricing policies.

Beginning with the third group--"Preventive services: non-patient-related"--it was concluded that user charges in many instances

HEALTH SERVICES: CATEGORIES FOR USER CHARGE POLICIES

I. Curative Care

Includes personal services (care of patients) by health facilities and independent providers, including traditional practitioners; and purchases by users of medicines. Can be subdivided into:

- (i) "first-contact" services (all outpatient)
- (ii) referral services (inpatient and some outpatient)

II. Preventive care: patient-related

Includes services to well patients, particularly infants, mothers, and pregnant women; also oral rehydration therapy (see note in Table 4) and hypertension control. Delivered through maternal and child health clinics at health facilities and community health programs. Typical services are: immunization, growth monitoring, and instruction on improved breastfeeding and weaning practices.

III. Preventive care: non-patient-related

Includes disease control (both vector control and mass campaigns), sanitation, education and promotion of health and hygiene, control of pests and zoonotic diseases, and monitoring of disease patterns.

either are infeasible or should be zero or negative (i.e., incentive payments should be offered to users). For several services in this group, true user charges are infeasible because of an exclusivity problem: residents of the target area who decided not to pay the charge could not be excluded from receiving their same benefits as those who do pay. Fee policies would collapse under the weight of unchecked free-riderism.

For other services in this third group, additional problems were noted, such as (i) for sanitation services (waste disposal) the large extent to which the main benefits, and particularly the social benefits, are external to the users, (ii) for mass immunization or deparasitization campaigns, the inherent conflict between their underlying strategy and the scope for individual decisionmaking that user charges require, and (iii) for health education and promotion programs, the apparent preference of many societies to treat these programs as merit goods, and some other more pragmatic considerations.

With respect to the first group--curative services--few compelling arguments against efficiency pricing emerged from the discussion of each of the salient issues identified in List A. While the available evidence is too limited and country circumstances are too varied to resolve some outstanding questions entirely, fees for these services undoubtedly should be increased above the current very low (or zero) levels in many cases. Policy debates on user charges for curative services should no longer presume, as was commonly done in the past, that curative services should be free unless some extraordinary condition favors otherwise. Rather, proposals for departures from full efficiency pricing should be subjected to careful scrutiny and required to be rigorously supported.

There is, however, one category of curative services--referral activities (all inpatient and some outpatient care)--where a different approach is needed. Significant increases in fees for referral services generally should not be undertaken until the broader complex of incentive issues affecting delivery of those services is addressed broadly. This means developing initiatives not only on fees but also concomitantly, on risk-sharing and organizational makeup--the topics of Chapter IV.

Finally, on the second group--preventive services that are patient-related--efficiency pricing may be warranted in some cases, but there often can be plausible reasons for setting prices lower (or at zero). Among these reasons are considerations relating to externalities and users' lack of information. Charges are feasible for patient-related preventive services (unlike services that are not patient-related), although issues relating to collection costs and administrative constraints are more questionable than in the case of curative services. Moreover, users do appear to be able and willing to pay for preventive services (according to the few empirical studies available)--contrary to the common hypothesis that most households will pay only for curative services. However, due to externalities and users' lack of information, it is likely that private and social demand relationships are not entirely coincident for such services as immunization, most other maternal and child health measures, and hypertension control. Immunization has social benefits in the form of "transmission externalities" that the recipient families themselves do not necessarily care about. In addition, all these particular services have external benefits associated with the prevention of disabilities, insofar as averting severe disability yields future savings in the support costs that communities, government programs, or

extended families otherwise have to bear for maintaining disabled individuals. Also, users' knowledge and understanding about their need for, and the potential benefits to them, of these services often is below what the society they live in has decided all members should have access to. Lacking certain basic facts or concepts which could be easily and cost-effectively communicated to them, their demand for the services may be weaker (lower and to the left in a price-quantity diagram) than it would be if they were better informed. This combination of externalities and lack of information may be enough, at least in some contexts, to require compensatory adjustments in pricing policies, keeping fees below marginal cost benchmarks.

IV. WHAT ROLE FOR OTHER OPTIONS?

As indicated earlier, this chapter is fundamentally different in character from the preceding one. The topics discussed here are the subject of ongoing work that is less advanced yet than efforts on fees for services. As a result, the present chapter is shorter, less complete and more of an introductory overview.

Picking up on themes raised in Chapter II, the discussion is in two parts, one on risk-sharing mechanisms and the other on the organizational make-up (public/private mix) of the health sector.

PRICING OF "COVERAGE": RISK-SHARING

Pricing of services, as Chapter II stressed and Figure 2 highlighted graphically, is not the only possible means, apart from taxation, for having users contribute to paying for health care. Users also, in many countries, pay for "coverage," insofar as they belong to risk-sharing schemes or other institutions that cover some or all of their health care needs. Such arrangements can range from social security schemes to third-party insurance to informal community-based drug cooperatives.

In some cases, coverage may take the form of a guarantee of eligibility to receive treatment when needed, at reduced or zero additional cost to the household at time of use; in other instances, it may be an assurance that any fees incurred by the household will be paid in whole or part by someone else (e.g., by a third-party insurer or a cooperative's managers). The element of risk-sharing involved may be either explicit, as in the pre-paid plans of health maintenance organizations, or implicit, as

in health care offered by employers for employees or by growers' cooperatives for their members. The payment users make (coverage charges) and the means of collection are diverse: paycheck deductions, insurance "premiums," membership dues, crop share contributions, or village assessments.

Because coverage charges do not vary with the amount of services a household receives, they, like taxes but unlike fees for services, contain no inherent disincentive to overutilization health facilities by users. However, unlike taxes, some forms of coverage charges are voluntary, in the sense that the household may be able to elect, if it wants, to cancel its coverage and spend its health outlays in some other way instead. Where this possibility exists, there is an incentive to providers and risk-sharing schemes to be responsive to household preferences regarding the type, quality and cost of care offered. Thus, while coverage charges lack the intrinsic restraining influence on household behavior that user charges have, they at least share the potential for fostering efficiency and better services through competition on the supply side. This feature diminishes, though, as the household's "degrees of freedom" lessen. For example, where suppliers are few or employers provide only one coverage option (so that individuals can only switch plans by leaving their jobs), the stimulus to efficiency may be modest. In the case of mandatory social security contributions, coverage charges become indistinguishable from taxes.

Risk-sharing concepts are attracting growing interest currently from both governments and donors as a possible alternative to having to choose between substantial increases in user charges on the one hand and continued gross underfunding of services on the other. In part, this

interest derives from a sense that risk-sharing arrangements could be made more equitable than some other types of policies, not only because those who happen to become ill and those fortunate enough to remain well share costs equally, but also because coverage charges can be graduated with respect to income level and can include exemptions for the poor. In part, too, there has been recognition of the high cost recovery potential of such schemes, since relatively modest coverage charges, when spread across an entire participant population, can raise substantial revenue. Furthermore, households' interest in participating in risk-sharing appears to be high, reflecting a widespread willingness to pay something for protection against being unable at some future time to obtain or pay for health care, even when the probability of this occurring may be small.

An additional attractive feature of risk-sharing schemes is the possibility of achieving, through them, policy options that involve appealing combinations of fees for services and coverage charges. The fees for services--called co-payment or cost-sharing--would serve primarily to deter users from unnecessary overutilization. The coverage charges would accomplish the major part of the cost recovery needed to meet expenses. In this way, the co-payment fees would foster efficiency goals from the demand side, compensating for the inability of coverage charges to do so. At the same time, fees could be kept low enough to support equity objectives and avoid denying access to poorer participants.

Against these hopeful perceptions, however, must be set the reality that existing risk-sharing schemes have numerous and not insignificant shortcomings. A brief review of some of the more salient problems follows under headings on social insurance, employer-based systems, cooperative-based schemes, and community-based systems.

Social Insurance.^{24/} While the details of medical care under social insurance system differ greatly from country to country, a few common features can be identified. One commonality is the fact that coverage is mostly limited to those with relatively stable wage-earning employment. Dependents of such individuals may or may not be included, while the vast numbers of marginal wage earners and subsistence farmers are, with rare exceptions, excluded. By one estimate (WHO, 1978), only 5 to 15 percent of the population in many countries with social security schemes are covered. These few also have the highest incomes. In addition, many systems provide services directly through their own facilities, rather than reimbursing participants for care received at private or general public institutions. Covered individuals thus have access to generally better equipped, less crowded hospitals and centers with better trained and better paid staff than the poorer remainder of the population.

Such trends have kindled sharp controversy. Some critics have maintained that social security aggravates social stratification and has a regressive effect overall on income equity. In their view, it undermines both public and private health care by competing with them for the limited supply of medical talent and resources, and thereby increasing the cost to users of public and private providers. The poor, it is argued, pay the

^{24/} A substantial literature exists now on medical care under social insurance, including several papers by the International Labor Organization, the Pan-American Health Organization, Roemer, Mesa-Lago, Zschock, and many others. Two recent reviews (Mesa-Lago, 1983, and Zschock, 1983) extensively examine the available evidence on Latin America. Less is known for other areas, although there are a few country studies such as Dunlop (1982) on Korea and Donaldson (1982) on Nepal.

same (or a higher) percentage of their income in taxes but get less in service, due to both the siphoning off of resources for social security and the diminished political pressure to "do more for health."

Another common theme is that participants frequently pay only a flat regular contribution--typically deducted from each paycheck. Few provisions for co-payment or deductible amount have been incorporated in existing schemes.^{25/} Since participation may effectively be compulsory, the entire system rests on what is from the individual's perspective the same as a tax.

One possible response to these problems might be greater integration of facilities, so that the uncovered population could have some access to social security hospitals and centers. Covered groups, however, might oppose this. Alternatively, a small fraction of employees' and/or employers' contributions could be diverted to government use for aiding in provision of public services for the uncovered. In this way, social insurance programs would subsidize poorer segments of the population--instead of the reverse, as is now the case in some countries. It is not impossible that a level of subsidy that is relatively small from the insured population's standpoint (and hence need not arouse insurmountable opposition) might represent a substantial marginal increase in support for public services for the non-insured. Still another possibility is to extend coverage to include groups now excluded and to use a sliding-scale contribution schedule to have higher income participants subsidize those with lower incomes. Moves to expand coverage are already well advanced in many countries, such as Argentina, Brazil, Egypt, and India; but whether

^{25/} There are, however, some exceptions--e.g., the Philippines.

there will be appreciable cross-subsidization among members remains to be seen.

The appropriate strategy for a country to follow now depends on what is in place already. For countries where social security programs already are large, entrenched and powerful (e.g., Latin America), different issues will command highest priority and different recommendations may emerge than for countries that currently have no program. In the former case, attention may need to focus on encouraging marginal--and often second-best improvements--in systems that have evolved lives of their own. On the other hand, for countries that presently have no program, the focus can be on assuring that mistakes of the past are not repeated, and that if and when a program is initiated, it is designed with broader national objectives in mind.

Employer-Based Systems. Health coverage provided by employers for their employees, whether directly through the employer's own health facilities or indirectly through third-party insurance, has several features in common with social insurance. Employer plans benefit only a select group--in this case those with jobs at firms large enough and stable enough to establish and maintain the necessary procedures and investments. Extension of coverage to dependents is sometimes limited. In most cases, no charges, whether as co-payment or deductible amounts, are levied.^{26/} Equity with respect to spreading of health risks and equity with respect to income distribution are well served within the covered population, but

^{26/} While some firms make regular deductions from each employee's paycheck, the more typical pattern for developing countries is simply to fund health care from gross income, as an ordinary expenditure item.

probably poorly served from an overall national perspective. In Latin America, for example, employees of the armed forces and police organizations have access to their own well-equipped facilities, enabling them to be not only higher paid but also better looked after medically--as well as socially separated from--the vast majority of the population. In parts of Asia and Africa, the health plans of large agricultural enterprises have similar consequences, sometimes accompanied by a dependence on "company" services that permeates multiple aspects of the lives of employees and their households.

At the same time, employer-based medical care is fundamentally different from social insurance in certain respects. Because it is a private rather than public sector activity, there can be opportunities for competition among alternative means of providing the same coverage (that is, different insurance carriers, and insurance vs. direct care). The emergence of large, and (some would say) uncontrollable social insurance bureaucracies is obviated. Moreover, the risks of burgeoning cost burdens for the government's budget, such as might result if a social insurance system becomes financially unsound, are lessened. There is, of course, another side to these points too. Leaving selection of coverage strategies to numerous firms responding atomistically to market influences entails a possibility that the facilities and services created will be duplicative or otherwise ill-designed from an overall social perspective. When firms fall on hard times, coverage may be reduced or, in the case of bankruptcy eliminated entirely.

These problems conceivably could be alleviated or averted, however, through new forms of government regulatory initiatives. Clearly,

Initiatives that impose substantial additional costs on industrial and agricultural firms, beyond what they would have spent anyway, may be undesirable because of the precarious financial status of some enterprises. Nevertheless, certain regulatory options would not increase firms' costs unacceptably.

For example, one conceivable target for regulation is the choice between insurance and direct care. From the standpoint of a single firm, provision of direct care has the advantage of being easier to control and, if necessary, to curtail. In some countries, however, more use of insurance may be preferable from the perspective of longer term national goals. In situations where perpetual reliance on public funds for most health services is not viable or not in the country's best interests, expansion of employer-supported health insurance might help stimulate the growth of a competitive private sector of medical care providers. Depending on how the insurance plans are structured, they might also contribute to promoting greater uniformity in treatment practices and/or diminished social stratification. Opposite outcomes also are conceivable, but government could channel the employer health plans along constructive lines by setting and enforcing standards. In countries where direct care is preferable to insurance (due, for instance, to the fact that employers' operational sites are located far from any centers where competent private providers might take root), standards might also be useful.

Cooperative-Based Schemes. Because social insurance and employer-based schemes that target on wage- and salary-earners reach only a small minority of the total population, a key concern in the search for alternatives to financing health services from general public revenue has been how to reach the vast majority in rural areas. Cooperative-based

schemes, in which members of agricultural cooperatives would designate a portion of their revenues to financing health services, are one possibility. Few viable examples exist yet, but the essential elements required and some of the obstacles that must be overcome have been discussed in a number of recent papers (e.g., Stevens, 1982).

Many different types of cooperatives--whether principally involved in marketing, credit extension, procurement of inputs, or some other activity--can be suitable as a basis for funding health services. The leading requirements are (i) that a stable organization exists, in which a substantial fraction of the local producers have confidence and expect to remain viable for many years to come, (ii) that some tangible transaction takes place (sale of a crop, payment of crop shares as "dues") in which most members regularly participate at frequent, routine intervals, and (iii) that there be some easily administrable way of setting aside a small fraction of the commodities (or cash) exchanged in each individual transaction and then converting the pooled proceeds into a steady flow of funding for health services. In some cases, a sub-unit of the cooperative's executive arm might directly operate health facilities; but more often, one or more cooperatives might contract with another organization specially created to serve as health services provider. The ability of the covered population to generate enough resources to sustain a health care component would have to be assessed in each instance, along with the managerial competence needed at the institutions involved. Consideration would have to be given to the effect that variations in crop prices would have on the extent and nature of the benefits provided. In addition, the potential impacts on the supply of inputs for health care, affecting the availability and price of doctors, nurses, drugs, and so on

for other segments of the health sector, would need to be taken into account. Compliance problems could be another issue: other kinds of rural insurance plans have experienced very low collection rates (Dunlop, 1982b and Donaldson, 1982). All of this is still largely unexplored terrain, and merits further investigation.

Community-Based Schemes. The idea that rural villages, urban neighborhoods and other forms of small communities can and should mobilize resources from among their own members to cover part or all of the cost of locally-provided health services has attracted intense interest recently, in the wake of debate on the role of community participation in, and the financial requirements for, meeting the Alma Ata goal of "Health for All" by 2000.

Opponents contend that too many communities are too poor to raise more than a small fraction of the funds or supplies required; that the poorest households might get short shrift; that even if communities could afford to pay, they would not be willing to support the quantity and quality of care they need; that in the many countries where free or heavily subsidized public services also exist, there would be a tendency for politically influential areas, often with higher income levels, to benefit from the subsidized services, while more impoverished locales are left to get by on their own meager resources; that the net effect would be reduced equity, both nationally by income level and across geographic areas; that it is even possible, in some tax systems, to wind up with poor communities contributing a net subsidy to support urban specialized hospital care; and that reliance on self-financing would encourage governments to provide less and less financial support for health than is in the public interest.

Advocates, on the other hand, maintain that it is unrealistic--naive, even--to believe that significant improvements in many communities' health care will come about in the foreseeable future without tapping local resources, given the limited amounts and unreliability of other fundingsources; that on financing as on other aspects of initiating effective primary health care, full community participation is vital; that the resulting enhancement of local self-reliance and organizational capabilities would have spin-off benefits in other areas of community development; that communities would not necessarily have to cover the entire cost or even a major part, since government support may be available for some items; that the dangers of inequitable distributional effects, while real, can be avoided by proper design; and that a well-conceived scheme could contribute toward more efficient resource allocation and better health status.

Stimulated by these multifaceted concerns, a recent study by Stinson (1982) reviews more than 70 community self-financing endeavors, ranging from China's much noted national program to projects elsewhere involving only a few villages.^{27/}

According to Stinson's results, nine principal methods of financing, listed in the left most column of Table 5 appear to be in use presently, of which fees for service, drug sales, and voluntary labor are the most common, but production-based prepayment (employed in China) reaches the most people. The resources generated include cash, labor, materials, and produce. The types of costs most frequently covered are construction and maintenance of health posts or other local civil works,

^{27/} See also a recent review of 52 primary health care projects (American Public Health Association, 1982).

Table 5. ALTERNATIVE COMMUNITY FINANCING METHODS

methods	resources generated	types of cost supported	major factors affecting economic viability	technical status required	community prerequisites
Fee for service	Loca. currency; in kind (produce)	Recurrent: CHW compensation; drugs	Regularity of drug supply; ability of people to pay	Fee setting; accounting	Leadership commitment essential
Drug sales	Loca. currency; labor	Recurrent: drugs; CHW compensation	Regularity of drug supply; ability of people to pay; management of capital	Price setting; inventory management; accounting; Premium setting; accounting	Leadership commitment essential
Personal prepayment	Loca. currency; in kind (produce)	Recurrent and some one-time: CHW compensation; drugs; sometimes hospitalization	Willingness and ability of people to pay management and technical factors	Premium setting; accounting	Widespread understanding of prepayment essential
Production-based prepayment	Local currency; labor	Recurrent and one-time: CHW compensation; drugs; sometimes hospitalization	Market factors affecting production; management and technical factors	Premium setting; accounting	Depends on management structure
Income generation	Labor (used to create cash)	Recurrent and one-time: CHW compensation; drugs	Market factors affecting production; public willingness to participate	Depends on project	Widespread commitment to activities being supported
Community labor	Labor	One-time: facility construction; community projects	Public's willingness to participate	Facility design	Widespread commitment to activities being supported
Individual labor	Labor	Recurrent: volunteer CHWs	Turnover rate of volunteer staff; need for retraining of replacement staff	Health related skills	Community support must develop to ensure long-range support
Donations and ad hoc assessments	Local currency; materials; labor	One time: facility construction; equipment purchase	Public's willingness and ability to participate	None	widespread support essential for assessments, though not for donations
Festivals, raffles, etc.	Local currency	One time: facility construction; equipment purchase	Public's willingness and ability to pay	None	Commitment of community leaders may be adequate

Source: Stinson (1982).

compensation of community health workers, and the local currency costs of drug sales. All basic services, curative and preventive, that are provided within the community are being supported. The consequences for the scope and accessibility of services (Table 6) and the overall strengths and weaknesses of the different financing methods (Table 7) vary.

What does experience to date suggest should be concluded about community financing? Clearly, neither the worst fears of opponents nor highest hopes of advocates have been unambiguously vindicated. There have been both failures and successes, considering the benefits and cost broadly. This suggests that caution should be exercised when embarking on any new efforts. However, where there is reason to anticipate that such efforts might be viable, and where undesirable distributional effects can be avoided, the pace of improvement in health status may be accelerated substantially, if other sources of financing are limited.

Two further facts also emerge from experience to date. The first is that community financing will rarely be able to cover the full costs of local services. Even if drug expenses, adequate compensation of community health workers, and construction and maintenance expenditure can be provided for--which is far from assured--there are still other costs which villages and neighborhoods cannot carry. Besides relatively minor amounts for training and supervision, these other costs may include considerable outlays to upgrade health centers and other facilities needed to support community health activities. Not only might these facilities have to be expanded or new ones built, but they then have to be maintained at a higher level of recurrent costs. It will be best, for these reasons, to enter into community financing schemes with the full awareness that only a portion--perhaps just a small portion--of the costs will be recovered locally.

Table 6. EFFECTS OF ALTERNATIVE COMMUNITY FINANCING METHODS ON THE SCOPE AND ACCESSIBILITY OF PRIMARY HEALTH CARE SERVICES

<u>method</u>	<u>income-related adjustments</u>	<u>risk sharing</u>
Fee for service	Sliding scales feasible and common	Only the sick pay
Drug sales	Adjustments rare: indigent may be helped by supplemental funding sources	Only the sick pay
Personal pre-payment	Premiums often adjusted for household income	Risks are shared, although users still pay additional fees
Production-based prepayment	Usually all participants benefit equally, regardless of inputs	Risks are shared, although users may still pay additional fees
Income generating schemes	Most community members can contribute in some way	Risks are shared
Community labor	Most community members can contribute in some way	Risks are shared
Individual labor	Not applicable	Not applicable
Donations and assessments	Donations generally reflect donor's resources; assessments are sometimes income adjusted	Risks are shared
Festivals, raffles, etc.		Risks are shared

Source: Stinson (1982)

Table 7. OVERALL EVALUATION OF COMMUNITY FINANCE ALTERNATIVES

Methods	Strengths	Weaknesses	Appropriate Uses	Supplemental Needs	Common Problems
Fee for service	Familiarity; may draw current private spending into public sector	Mostly supports curative services for those who can afford to pay; no risk sharing	Payment of health workers if moderated by sliding scale	Support for preventive and community work	Many are reluctant to pay minimally trained community worker when traditional or private practitioner is available
Drug sales	Reduces drug costs through use of unpaid labor and emphasis on limited range of essential drugs	Supports mainly curative care for those who can afford to pay; no risk sharing	Coverage of in-country drug costs	Help for the poor; foreign exchange for imports; support for preventive and community work	Supply interruptions; "decapitalization"; black marketing
Personal prepayment	Spreads health costs between the healthy and the sick	People often reluctant to pay for health care, expect when specifically required	Prepayment of fixed costs, if adjusted for family income	Back-up funds may be needed for cost overruns	Many people prefer service fees when given the option; adverse selection
Production-based	Bases financing on existing economic unit	Available for limited population groups (except where production is communal)	Appropriate for employed persons or for cooperative or communal production	Support for subsistence groups	Especially subject to economic forces
Income generation	Allows community labor to be used for recurrent costs	Start-up costs may be especially high	Most appropriate for multisectoral (especially PVO) projects	Back-up funds	Especially subject to economic forces
Community labor	Uses an abundant resource	Only seasonally available and only for one-time costs	Appropriate for facility construction and maintenance	Support for recurrent costs	Community loses interest if government does not provide expected inputs
Individual labor	Uses an abundant resource	Generally available only part-time; high turnover may raise training costs	Mainly for part-time and supplemental health activities	Referral links for all but simple problems	May be unavailable when needed
Donations and ad hoc assessments	May use readily available local materials; donations allow people to contribute according to ability	Limited utility, mainly for one-time costs	Purchase of equipment or initial drug supply	Support for recurrent costs	May be difficult to motivate
Festivals, raffles, etc.	People may "enjoy" paying	Limited utility, mainly for one-time costs; low efficiency	Purchase of equipment or initial drug supply; capital construction in some countries	Support for recurrent costs	

Source: Stinson (1982).

The second point, related to the first, is that any locality prepared to embark on such a scheme will need a lot of help, both financial and organizational, during the start-up phase, and continued shoring up from time to time subsequently. It may be necessary, too, to plan on a certain drop-out rate--say, a third of all participating communities. While devising fallback arrangements for drop-outs that do not undermine the system or treat some locations unfairly may be difficult, it is worth the attempt.

ALTERING THE ORGANIZATIONAL MAKEUP OF THE SECTOR

Even with vigorous efforts to improve pricing policies in the health sector, many countries will still be faced with severe financing problems (resource constraints and efficiency and equity issues) in the remainder of the 1980s and beyond. This state of affairs provides added impetus for countries to re-examine the organizational makeup of their health sector, asking in effect (i) what sorts of public, private and quasi-public providers and financing intermediaries should there be, (ii) what roles should they have (e.g., who should provide which services), and (iii) what relationships should exist among them (who should have what forms of control or oversight over whom). In terms of Figure 2, these questions pertain to the content of the boxes and circles shown, whereas preceding topics have mostly dealt with the flows connecting them.

Deciding how much should be done by government in administering services directly and how much should be left instead to private entities (also, whether there is a place for quasi-public institutions) is not the only important issue that arises here, but it clearly is a key one. In principle, such questions should be resolved on the basis of whichever set

of organizational arrangements will result in the most efficient use of resources, taking into account equity goals and the administrative costs borne by government in fulfilling whatever regulatory or enforcement functions are assigned to it.

Whether private entities are more or less efficient than public facilities is hotly contested. Most of the evidence currently available is too anecdotal to support generalizable conclusions. Nevertheless, it seems clear that at least for some services and in some countries, government may not be the most efficient provider.

A related but separate consideration is that reducing the public role in service delivery diminishes requirements for scarce public funds. Thus, encouraging substitution of private for public activities is helpful from the standpoint of government fiscal management; but it must be stressed that such measures may or may not increase efficiency for the country overall, depending on the service provision characteristics of both public and private providers.

As with policies on charges, different types of health services may call for different handling with respect to public, private and quasi-public responsibilities. For each service, two preliminary questions must be addressed before the issue of which approach is best for efficiency can be resolved. First, can and would private providers deliver the service widely and on a long-term basis? Second, if they did, would the terms on which it is offered (its distribution geographically, its quality, and the costs to households) meet whatever special constraints are deemed societally important, allowing for equity concerns? In delving into these questions, an assessment must be done of the extent to which market mechanisms, as developed in private provision of health care, would be able

or unable to lead to socially optimal amounts and allocations of expenditure. Such an assessment should consider the same sorts of issues as were indicated above for user charges, in List A. In addition, the possibility that a natural monopoly may exist for some services (e.g., because average costs decline as the quantity provided increases) must be explored.

Only a few broad observations on these points will be offered here. For certain services, there is little doubt that public agencies need to be the leading providers, for reasons already mentioned. Most of the non-patient-related services, as defined in Table 4 above, are in that category. For patient-related services, particularly services curative care (the first group in Table 4), the arguments in favor of a strong public role in the provision of care are, on close inspection, not very compelling. A shift toward reduction (or at least less rapid expansion) of government's share in the direct administration of curative services may therefore be appropriate in some situations, if indicated on efficiency grounds. A first step in that direction would be to allow or foster further development of private or quasi-public institutions while restraining additional growth in public facilities. Eventually, devolution of control and ultimately ownership could be considered. The shift in responsibilities should be gradual to avoid dislocation, and may require a large public role initially. Also, although government authorities would be scaling back their participation in direct administration of services, they would often need to retain or even increase their activity in planning, monitoring, and regulating.

Patient-related preventive services (the second group in Table 4) are somewhere in the middle with respect to public/private arguments. For

pragmatic reasons, it may frequently be advisable not to alter existing policies for them until more clearcut options relating to Group III have been dealt with.

Naturally, too, all of the above considerations must be applied within the context of the existing institutional setting. For example, in situations where services from more than one group are provided jointly (e.g., health centers that offer both general outpatient care and immunizations, tradeoffs must be made in selecting the best overall organizational structure.

V. CONCLUDING REMARKS

The implications of this paper's conclusions for current policymaking--that is, for action that countries, the Bank, and other international institutions can take right away without waiting for more data to become available---have already been discussed in the Summary section at the outset. Rather than repeat that, this Section focuses on what further work is needed in research, including operational support analyses.

IMPLICATIONS FOR RESEARCH

Filling current gaps in the available evidence will require research of diverse kinds. Besides pure research and more applied country studies, much can be learned from "natural experiments" wherever they may arise--i.e., situations where major policy changes take place and can be tracked analytically. Of course, some issues are inherently difficult to research well, others need a long time for data collection and analysis, and still others can only be elucidated if governments commit themselves to exploring subjects that often are politically sensitive. With these considerations in mind, the following priorities for next steps are suggested.

First and foremost, something must be done as soon as possible about the serious lack of reliable cost data in sufficiently disaggregated form to support at least rudimentary types of cost analysis. In several countries (including many in Africa), the sum total of all cost information routinely tabulated consists of the few pages of planned expenditures used in preparing the national budgets; actual expenditure accounts, where they

exist in usable form, often are years behind, highly aggregated, and marred by inconsistencies. In other countries (e.g., in Latin America), detailed cost categories have been defined, but the numbers obtained are universally regarded as without much meaning, so poor is their quality. Progress on this problem must start with recognition by the relevant health ministry officials that a problem exists, and must be followed by a sustained effort from within the ministry to improve matters. Where those prerequisites exist, a variety of approaches (in terms of techniques, staffing, funding, timing, organization, and management) are possible, in which the Bank can be useful through technical assistance in project lending, sector and project preparation missions, and other means. The Population, Health and Nutrition Department is now raising the issue of improving financial management (of which cost data is a central part) in most of the countries where it is working; but country interest is not always strong. A suggested strategy for upgrading financial systems (including reporting, recordkeeping, accounting, budgeting, and financial control processes) is detailed in de Ferranti (1983b).

Second, to identify more precisely the critical elements and potential of insurance-type and pre-payment vehicles, studies should be encouraged which examine existing schemes in greater depth than has been possible from present data. Both the practical workings of functioning schemes and the implications for equity and efficiency should be analyzed, with the aim of gaining better understanding of generalizable features that account for success or failure. Contrasting the experiences of a carefully chosen small group of countries could be useful here.

Third, a similar approach--looking at selected country experience more rigorously than has been possible from current evidence, and focusing

on both "how things work" and "who benefits, who loses?"--should be pursued in studies of mixed public/quasi-public/private systems. All systems, in a sense, have this mixed nature; what is needed is analysis of cases where quasi-public and private services not only exist but have a recognized place in the government's health planning, complementing in some particularly noteworthy way the publicly administered services.

Fourth, on user charges, additional demand studies should be initiated, drawing on household survey evidence to investigate ability and willingness to pay and other issues. One study funded with Bank support--on Mali--has already been completed and another--on Peru--is in process. These, however, will be unable to resolve several key issues which are not directly related to price, such as the implications of users' imperfect knowledge about medical services. Special studies are needed to address those issues, which are as important to understand as price effects. Also, results for a greater range of different country situations would strengthen the base of information beginning to become available.

ANNEXES

**Health's Share of Government Expenditure
and External Assistance**

The outpouring of hopeful exhortations in the period since Alma Ata to increase external aid for health and boost health's share of government expenditure has not brought the dramatic changes that some had anticipated. In fact, nothing in the recent past, present, or near future (given current economic projections) suggests that funds from outside the sector will do more than rise slowly in the next five to ten years. In some countries a period of no increase, or of a decrease after adjusting for inflation, may occur. This is not to say that pressing for larger outlays is a mistake; but if ardent promotional efforts are allowed to suppress hard thinking about additional, more realistic options, there will be little to cheer about in the year 2000.

The total amount of external aid to the health sector has been estimated for 1979 at US\$3 500 million.^a There is little prospect that it has risen much since then, and even less chance that it will soon reach the US\$7 000 to 30 000 million or more that some say would be needed to attain the HFA/2000 goals. (Again, the precise amounts are less important than the simple point that a radical departure from past levels would be required.) In the early 1980s, external aid for all sectors (these data do not exist for health alone) has fluctuated between approximately 3% and 13% above the 1979 level, based on inflation-adjusted data for OECD and OPEC

^aFrom WHO, 1981. A slightly lower figure, US\$3 000 million, for 1978, is given in (7).

countries through 1982.^b In view of more recent developments (especially concern about international debt problems), a steady upward trend is improbable soon; the 1984 figure may well be below 13%. In addition, there is some evidence that health's proportion of total external aid certainly has not increased and may have fallen since 1979. The United States, accounting for by far the largest amount of total aid among OECD and OPEC countries, spent over 20 percent less on health assistance in 1983 than it did in 1979 (inflation-adjusted).^c

Regarding health's share of domestic public expenditure, the situation is equally unpromising. Tables A-1 and A-2 present estimates of several basic expenditure indicators describing the prevailing trends. Table A-1, included as background information, provides a one-point-in-time profile for most of the countries in the low income and lower middle income groups (as listed in 8), in each case using the most recent evidence obtainable. Analysis of these and related data underscore several general features of health sector expenditure patterns, including:

- The enormous differences, across income level (i.e., per capita Gross National Product), in health expenditure per capita (in 1980, public health expenditure per capita averaged US\$2.8 for the low income group and US\$7.0 for the lower middle group. These compare with US\$28.1 for the upper middle group and over US\$400 for industrialized countries);
- The fact that the share of GNP spent on health rises as income level increases, although this relationship is weaker among developing countries than industrialized nations (in 1980, public

^bComputations by author from data in (8), Table 18.

^cPersonal communications with USAID officials.

health expenditure as a percent of GNP averaged under 1.5% for the low and middle income groups combined, and over 3.5% for the industrialized countries);

- The similarly positive but weak correlation between income level and health's share of total government expenditure (in 1980, the low income group devoted 5.0% of their central government outlays to health, the middle income group devoted 5.5%, and the industrialized countries, 12.0%);
- The large magnitude of private spending on health relative to public spending; (In some countries--e.g., Upper Volta, Haiti, and the Philippines - the difference is more than a factor of 2, implying that 67 percent or more of health expenditure is through private channels including not only modern facilities but also traditional practitioners); and
- The tendency for household spending on health as a proportion of household income to be between 1 and 5 percent in most countries.

Table A-2 traces how two of these indicators have changed over the last decade. Public expenditure per capita on health, after adjusting for inflation and population growth, exhibited a generally rising trend in some 34 of the 47 countries shown a falling trend in about 8, and a fluctuating or constant pattern in the remainder.^d In the low income group and the upper middle income group, the number with a rising trend exceeded those

^dThese classifications are based on comparing the figures for the first and last years given, using the arbitrary criterion that a difference of less than 5 index points (5% of 100) is too small to count as a rising or falling trend. For the data on health's share of total public expenditure, the corresponding cutoff was 0.3 percentage points (e.g., 0.3 out of 4.9 for Ethiopia in 1977).

with a falling trend by 2 to 1; in the lower and upper middle income groups, gainers led losers by 4 to 1. Over the same period, health's share of total public expenditure fell in 25 countries rose in 14, and varied in some other way in the rest. In the low income group, falling trends dominated (11 of 14), as they did also in the upper middle income group (7 of 11); but they were in the minority (7 of 22) in the lower middle income group, which has 12 countries with rising trends. Unfortunately, the path of private spending over time cannot yet be similarly documented.

Overall, the available evidence suggests that government spending on health services in developing countries has been (i) increasing in real per capita terms in many places but not universally, and (ii) drifting downward as a percent of total public expenditure, though again not uniformly. A related question often raised is: how has health, a social sector, fared in comparison with other sectors in recent years, particularly during periods of economic downturn? Data analyzed by Hicks (9) shows, contrary to common perceptions, that the social sectors, and health in particular, have experienced smaller declines in their budget allocations than other sectors during recent periods when public expenditure in total has fallen in real terms. On the other hand, during periods of rising public expenditure, health and other social sectors have done less well than sectors such as agriculture and industry.^e

^eIn part, these findings can be attributed to the fact that costs that cannot be changed easily in the very short run - most notably, staff salaries - typically form a greater proportion of expenditure in the social sectors than in other sectors. Yet there also is another consideration that relatively small budget cuts in the health sector's variable inputs - such as drugs - can have an enormous impact on the quality of service. Thus, even though health may appear from aggregate data to have fared better than other sectors during recessionary periods, the consequences may still have been equal or greater, in some quality-adjusted sense, to the effects of cuts elsewhere.

What is most relevant for our purposes here, however, is that current trends do not appear even remotely likely to lead to the substantial, global increases in health spending by developing country governments that some have hoped for. Apart from a few exceptions (such as, from Table A-2, Guatemala and Korea in per capita expenditure), increases have been modest at best, and decreases have not been uncommon. Other evidence from WHO is consistent with these conclusions. Thus, for many countries, the key question about the direction of government outlays for health in the years ahead will be not whether new plateaus can be reached but rather whether old ones can be preserved.

Table A-1. HEALTH EXPENDITURE INDICATORS

Country	GNP per capita (US\$ 1961)	Public Only			Public and Private			Household as % of household income
		per capita (US\$)	as % of GNP	as % of all Government Expenditures ^a	per capita (US\$)	as % of GNP	as % of household income	
Low Income								
Kampuchea	...	1.00 (1970)	8					
Laos, P.R.	80	1.00 (1978)	9					
Dad	110	2.00 (1978)	1-2	4.2				2.5 - 4 (n.d.)
Bangladesh	140	1.00 (1981)	1.0	5.7 (1980)	1.98 (1976)			
Ethiopia	140	1.00 (1978)	1.2	4.9 (1977)				2 - 5 (n.d.)
Nepal	150	1.00 (1980)	8	3.9 (1979)				8 - 3.1 (1973-74)
Burma	190	1.00 (1979)	8	5.3 (1977)				
Alghamstan	...	1.00 (1978)	6	4.8 (1980)				
Haiti	190	1.17 (1982)	8	3.1 (1980)	3.41 (1981)			
Mali	200	2-3.00 (1980)	1.0 (1978)	5.5 (1980)	9.00 (1981)	4.0 (1980)		2 - 8 (1968)
Maliawi	210	3.00 (1978)	1.0	4.0 (1977)				1.1 - 2.0 (1969-72)
Zaire	220	4.00 (1978)	1.1	6.1 (1980)				1.0 - 1.9 (1964-65)
Uganda	230	1.30 (1978)	1.0	4.7 (1977)	3.45 (1982)	1.5 (1982)		
Senegal	240	2.50 (1981)	1.4	4.9 (1979)	5.95 (1981)	3.2 (1981)		
Upper Volta	250	1.00 (1978)	9	4.8				
Kenia	250	1.00 (1978)	9	1.7 (1980)				
India	260	2.00 (1978)	1-2	3.2				2.1 - 2.3 (1973-74)
Yonalia	280	2.00 (1976)	9	5.4 (1979)	3.00 (1977)	3.0 (1977)		1.0 - 1.9 (1969)
Tanzania	280	3.00 (1979)	2.0 (1978)	5.4 (1979)				
Vietnam	...	1.00 (1978)	7	7.1 (1977)				
China	300	4.50 (1980)	2-5 (1979)	7.89 (1980)	3.3 (1981)			
Algeria	310	3.00 (1978)	1-2	11.0 (1981)	15.00 (1981)			8.6 (1970)
Haiti	310	5.40 (1981)	8	4.2 (1977)	14.95 (1982)	5.1 (1982)		1.6 (1973)
St. Lucia	310	5.00 (1979)	1.7 (1978)	4.2 (1977)				
Benin	320	3.00 (1978)	1.4	7.1 (1977)				2.2 (1981)
Central Afr. Rep	320	3.00 (1978)	1.5	4.1 (1979)				4.6 - 2.8 (1968-69)
Sierra Leone	320	3.00 (1979)	1.7 (1978)	8.1				1.3 (1961-62)
Madagascar	330	4.30 (1976)	1.9	4.6				1.8 - 2.1 (1971-72)
Niger	330	2.00 (1976)	9	1.5 (1980)	11.26 (1981)			2.3 (1967-68)
Pakistan	330	3.19 (1981)	9	1.7				
Mozambique	...	3.00 (1978)	9	4.6				
Sudan	340	7.00 (1976)	2.1	7.0 (1981)				
Togo	380	4.00 (1979)	1.2 (1978)					
Ghana	410	4.00 (1979)	1.2 (1978)					
Lower-Middle Income								
Kenya	420	3.00 (1979)	1.9 (1978)	7.8 (1981)				
Senegal	430	9.20 (1981)	1.1 (1978)	5.2 (1981)	14.50 (1981)			9 - 1.6 (1970-71)
Mauritania	460	3.00 (1979)	1.7 (1978)	2.8 (1979)				2.2 (1981)
Y.R.C.	460	4.00 (1978)	7	3.9				
Y.P.D.R.	460	12.00 (1982)	2-6 (1978)	6.0 (1981)				
Liberia	520	7.00 (1979)	2.4 (1978)	6.1 (1979)				
Indonesia	730	5.00 (1976)	1.0 (1980)	2.5 (1980)				
Lesotho	340	3.00 (1979)	1.0 (1978)	7.1 (1981)	3.00 (1976)			3.2 (n.d.)
Maliawi	630	8.00 (1978)	9	8.6 (1979)				1.4 - 2.6 (1972-73)
Madagascar	630	7.00 (1979)	2.1 (1976)	8.0 (1979)				
Malawi	630	11.00 (1978)	2-5 (1981)	4.6 (1980)				3 - 4.8 (1967-68)
Zambia	630	8.00 (1978)	1.7 (1977)	3.6 (1978)				5 (1966-68)
Senegal	630	6.00 (1979)	1.5 (1976)	6.7 (1980)				1 - 1.8 (1974-75)
El Salvador	630	6.00 (1979)	1.2	4.1 (1980)				2.3 (n.d.)
Thailand	770	7.30 (1982)	7 (1978)	3.5 (1980)				2.7 - 5.7 (1971-72)
Philippines	790	7.00 (1978)	1.1	8.7 (1980)				1.8 (1971)
Angola	840	7.00 (1979)	1.2 (1978)	3.1 (1979)				2.9 (1970-71)
Morocco	860	13.00 (1976)	1.4	14.6 (1980)				
Nicaragua	870	4.00 (1978)	5	2.2 (1977)				2.5 (1959-60)
Nigeria	870	21.20 (1980)	3.4	6.4 (1982)				1.9 - 2.5 (1980)
Zimbabwe	880	3.00 (1979)	8 (1978)	5.1 (1980)				
Cameroon	880	4.00 (1978)	3.2	4.2				
Guba P.R.	1110	10.00 (1976)	2.0	10.9 (1980)				2.5 (1966)
Zongo P.R.	1140	9.00 (1979)	8 (1978)	4.5 (1980)				3.0 (1977-78)
Guatemala	1170	32.00 (1981)	2.4	6.7	59.00 (1981)	4.5 (1981)		2.5 (1967-68)
Peru	1180	6.00 (1979)	1.0 (1978)	7.8 (1977)				1.2 - 3.2 (1957-58)
Ecuador	1180	34.00 (1976)	3-5 (1980)	9.0 (1979)				4.3 (1969)
Jamaica	1200	14.00 (1978)	1.6					
Ivory Coast	1260	12.00 (1978)	1.4					
Dominican Rep.	1260	19.00 (1978)	1.4					
Hongolia	1890	28.00 (1978)	1.5	6.7 (1980)				
Colombia	1420	22.00 (1976)	2.7 (1979)	7.3 (1978)				
Turkisa	1433	7.00 (1979)	1.2 (1978)	5.1 (1980)				
Costa Rica	1433	3.00 (1978)	3.3	3.6 (1980)				
Korea D.R.	1540	8.00 (1979)	2.0 (1979)	3.6 (1980)				
Turkey	1540	3.00	4 (1978)	1.0 (1979)				
Syria	1620	13.00 (1979)	1.4 (1978)	4.1 (1979)				
Jordan	1620	3.00 (1979)	2.5 (1981)	4.5				
Paraguay	1630	3.00 (1979)	2.5 (1981)	4.5				

Source: Compilation by author from Bank and non-Bank country studies. Year, if not shown, is same as in previous column.

Table A-2. RECENT TRENDS IN PUBLIC EXPENDITURE ON HEALTH SERVICES

Countries	Public Expenditures on Health Services									
	Per Capita Index (1976 = 100) ^a					As Percent of Total Public Expenditure				
	1973	1975	1977	1979	1980	1973	1975	1977	1979	1980
<u>Low-income</u>										
Ethiopia	36.8	116.9	73.9	....	....	2.1	5.9	4.9	....	....
Nepal	53.1	68.8	88.1	91.5	....	4.9	5.9	5.5	5.1	....
Burma	133.1	106.2	103.7	....	....	6.1	6.6	5.9	....	....
Malawi	100.9	104.6	71.3	127.8	136.5	6.9	5.7	4.1	5.3	5.5
Burundi	80.0	103.3	88.5	....	....	6.0	7.2	4.7	....	....
Upper Volta	88.0	72.6	78.8	85.4	....	8.2	6.6	5.3	4.9	....
Rwanda	86.8	103.3	101.5	....	....	5.7	6.5	4.8	....	....
India	....	81.2	80.0	80.6	81.4	....	2.4	2.0	1.7	1.7
Somalia	124.0	108.2	107.2	....	....	6.9	5.9	4.9	....	....
Tanzania	89.2	110.6	106.9	113.9	....	7.0	7.0	7.1	5.4	....
Sri Lanka	89.2	77.4	112.9	....	....	13.0	10.5	11.7	....	....
Niger	....	....	88.1	120.8	128.8	....	....	4.5	4.7	4.1
Sudan	229.6	83.4	94.1	75.8	63.1	5.1	1.6	1.5	1.5	1.4
Ghana	96.8	130.9	60.4	34.2	28.4	7.9	8.3	7.4	6.0	7.0
<u>Lower Middle-income</u>										
Kenya	91.2	98.3	102.3	110.7	111.8	7.4	8.0	8.2	7.2	7.8
Yemen Arab Rep.	....	81.3	115.9	283.8	351.8	....	2.7	2.8	3.4	4.0
Liberia	....	94.3	101.6	116.2	68.1	....	9.3	7.9	6.1	5.2
Honduras	61.1	77.9	66.4	72.8	....	11.7	12.8	8.5	8.0	....
Bolivia	66.7	88.4	104.7	115.4	....	7.8	8.4	8.0	8.6	....
Zambia	103.9	95.0	92.6	99.4	69.5	5.5	4.4	6.2	5.6	4.6
Egypt	....	89.9	109.7	....	....	....	2.7	3.2	....	....
Thailand	68.7	71.6	112.8	131.2	125.6	3.4	3.7	4.7	4.5	4.1
Philippines	54.0	83.7	101.8	89.9	79.2	2.9	3.9	4.6	4.2	3.5
Papua N. Guinea	....	80.4	100.2	104.5	114.0	....	6.3	8.3	8.0	8.7
Morocco	71.2	90.4	93.1	82.0	....	4.7	3.6	3.0	3.0	....
Nicaragua	....	71.2	100.7	62.8	134.2	15.7	8.4	9.6	10.3	14.6
Nigeria	42.0	97.9	86.2	....	....	2.6	2.2	2.2	....	....
Cameroon	....	105.3	90.6	92.1	114.5	....	5.4	4.8	4.3	5.1
Guatemala	101.9	94.7	106.9	111.5	181.1	9.2	8.6	7.6	7.6	10.9
Peru	87.7	88.6	96.6	89.5	86.7	5.5	5.1	5.9	6.1	4.5
Ecuador	94.7	93.2	100.7	139.2	160.5	7.5	7.2	8.2	7.8	8.7
Tunisia	67.5	87.8	120.3	....	....	6.7	6.1	6.9	....	....
Costa Rica	49.7	73.5	75.1	76.3	157.2	3.3	4.5	3.3	2.4	5.1
Syrian Arab Rep.	35.1	103.3	78.2	151.1	157.8	.5	.7	.5	1.3	.9
Jordan	....	92.0	97.9	126.1	....	....	4.1	3.6	4.1	....
Paraguay	96.2	90.6	101.1	139.5	....	3.3	2.8	2.7	2.7	....
<u>Upper middle-income</u>										
Korea	69.1	74.7	168.0	140.6	153.3	1.3	1.0	1.7	1.1	1.2
Malaysia	93.4	103.6	148.3	128.2	....	7.1	6.9	7.4	6.4	....
Panama	99.5	108.6	105.9	123.7	....	15.1	14.5	14.5	12.3	....
Brazil	62.6	79.8	113.0	124.0	....	6.8	6.5	8.0	8.5	....
Mexico	90.3	93.6	105.9	115.9	80.6	4.9	4.2	4.4	3.9	2.4
Argentina	74.0	70.9	56.3	37.8	40.5	3.4	2.5	2.7	1.7	1.7
Chile	112.2	100.5	120.2	....	....	8.0	6.9	6.4	....	....
Uruguay	105.9	99.9	103.4	115.5	....	4.8	3.9	3.8	4.7	4.8
Venezuela	77.9	92.6	102.0	89.2	89.7	11.6	9.1	8.0	8.6	8.7
Israel	92.0	104.8	134.9	182.2	125.3	3.3	3.7	4.3	5.1	3.5
Singapore	71.3	90.4	103.2	109.1	121.6	7.8	8.5	7.4	7.0	6.9

^aComputed as follows: Per capita public health expenditure for each year in local currency was first adjusted by that country's consumer price index to remove the effects of inflation. This result was then divided by the 1976 value to create an index.

Source: International Monetary Fund. Government finance statistics. Various issues.

Table A-3. PRIVATE AS A PERCENT OF TOTAL HEALTH EXPENDITURES

Country	Percentage	Notes ^{1/}
<u>Developing Countries</u>		
Afghanistan, 1976/75	88	Payments by individuals only.
Argentina	69	<u>2/</u>
Bangladesh, 1976	87	Payments by individuals only. Golladay and Liese (1980) report 76% from WHO sources.
Botswana, 1978	48	Payments by individuals account for 21%.
Brazil, 1981 1976	33 or greater 31	Rough estimate. Better data expected from new household surveys.
China, 1981	32	Payments by individuals only.
Colombia, 1978	33	68% if contributions to the social insurance system are included.
Ghana, 1970	73	<u>2/</u>
Haiti, 1980	65	Payments by individuals account for 57%.
Honduras, 1970	63	<u>2/</u>
India, 1970	84	<u>2/</u>
Indonesia, 1982/83	62	64% if contributions to government insurance scheme are included.
Jamaica, 1981	40	<u>2/</u>
Jordan, 1982	41	

(continued on next page)

Sources: Stinson (1982) on Afghanistan; WHO (1978) on Bangladesh and Korea; McGreevey (1982) on Brazil; Prescott and Jamison (1983) on China; Health Sector Policy Paper (1980) on Ghana, Honduras, India, the Philippines, and Sudan; Cumper (1982) on Jamaica; Jeffers, et. al. (1983) on Lebanon; Laurent (1982) on Rwanda and Togo; Bicknell and Lebowitz (forthcoming) on Swaziland, Syria, and Tunisia; Golladay and Liese (1980) on Tanzania; "World Health Spending Outlook to 1990" (Predicast, Inc., 1978) on Argentina, Mexico, and Venezuela; World Bank sector and project reports on the remaining developing countries; and Maxwell (1981) on the industrialized countries.

^{1/} Except as noted, "private" includes, in principle, expenditures on health services (defined as in Table 1) by: (i) individuals, excluding regular contributions to government insurance schemes (e.g., payroll deductions for social security), (ii) employers on behalf of their employees, (iii) private voluntary organizations (e.g., mission hospitals), and (iv) private practitioners—all taken net of government subsidies and other transfers (e.g., items (ii), (iii) and (iv) should be net of fees collected). In practice, however, many figures are crude approximations. "Total" health expenditure encompasses all private, public and quasi-public (hence government insurance scheme) outlays—again in net terms.

^{2/} Source provides only limited information on definitions and/or data used.

Table A-3 -- continued

Country	Percentage	Notes ^{1/}
Korea, South, 1975	87	
Lebanon, 1982	50 or greater	Rough estimate.
Lesotho, 1979/80	12	Does not include expenditures on traditional practitioners and private non-PVO services.
Malawi, 1980/81	229	<u>2/</u>
Mali, 1981	54	<u>2/</u>
Mexico, 1976	31	<u>2/</u>
Pakistan, 1982	71	72% if contributions to social security are included. Payments by individuals account for 58%.
Philippines, 1970	75	<u>2/</u>
Peru, 1982	53	Rough estimate.
Rwanda, 1977	37	Does not include expenditure on traditional practitioners and non-hospital modern care. Payments by individuals account for 13% (or 15% of recurrent expenditure).
Senegal, 1981	39	Does not include expenditure on traditional practitioners.
Spain, 1976	39	
Sri Lanka, 1982	45	As percentage of recurrent expenditures only.
Sudan, 1970	41	<u>2/</u>
Swaziland, n.d.	50	<u>2/</u>
Syria, n.d.	76	<u>2/</u>
Upper Volta, 1982	19.3	
Tanzania, n.d.	23	<u>2/</u>
Thailand, 1978	79	
1979	70	
Togo, 1979	31	Does not include expenditure on traditional practitioners or non-hospital modern care. Payments by individuals account for 28%.

Sources and notes are on preceding page.

Table A-3 -- continued

Country	Percentage	Notes <u>1/</u>
Tunisia, n.d.	27	<u>2/</u>
Upper Volta, 1981	24	24% if contributions to social insurance are included. Excludes private foreign aid.
Venezuela, 1976	58	<u>2/</u>
Zambia, 1981	50	Payments by individuals account for 27%; missions, for 3%; and services funded by mining enterprises, for 19%.
Zimbabwe, 1980/81	21	Payments by individuals account for 17%.
<u>Industrialized Countries</u>		
Australia, 1974/75	36	
Canada, 1975	25	
France, 1975	24	
Germany, West, 1975	23	
Italy, 1975	9	
Japan, 1976	10	<u>2/</u>
Netherlands, 1974	29	
Norway, 1976	4	<u>2/</u>
Portugal, 1976	24	<u>2/</u>
Sweden, 1975	8	
Switzerland, 1975	34	
United Kingdom, 1974/75	7	
United States, 1974/75	57	

Sources and notes are on preceding page.

SOURCES

- Abel-Smith, Brian. Poverty, Development and Health Policy. WHO. Public Health Papers No. 69, 1978.
- Acharya, M. "Issues in Recurrent Costs in Social Sectors." Employment and Income Distribution Division, Development Research Department, 1982.
- Acharya, S.N. "Public Enterprise Pricing and Social Benefit Cost Analysis." Oxford Ec. Paper, 1972.
- Anderson, D. and Turvey, R. "Economic Analysis of Electricity Pricing Policies." Public Utility Dept., PUD RE Sl, 1974.
- Ainsworth, Martha. "The Demand for Health and Schooling in Mali: Results of the Community and Service Provider Survey." Country Policy Department, 1983. Discussion Paper No. 1983-7, March 1983.
- Ainsworth, M. "User Charges for Cost Recovery in the Social Sectors: Current Practice." Country Policy Department, forthcoming.
- _____, Francois Orivel and Punam Chuhan. "Cost Recovery for Health and Water Projects in Rural Mali: Household Ability to Pay and Organizational Capacity of Villages." Draft. Country Policy Department, April 18, 1983.
- Akin, J.S., Griffin, C.C., Guilkey, D.K., and Popkin, B.M. 1982. "The Demand for Primary Health Care Services in the Bicol Region of the Philippines." Paper presented at the National Council for International Health Conference, Washington, D.C., June 14-16, 1982.
- American Public Health Association, "Primary Health Care: Progress and Problems -- An Analysis of 52 AID-Assisted Projects," 1982.
- Arrow, K.J. 1963. "Uncertainty and the Welfare Economics of Medical Care." American Economic Review, 53, pp. 941-973.
- Arrow, J.K. 1974. "The Economics of Moral Hazard." American Economic Review, 64, pp. 253-272.
- Ascobat, Gani. "Demand for Health Services in Rural Area of Karangyar Regency, Central Java, Indonesia," PhD Thesis, School of Public Hygiene and Public Health. The Johns Hopkins University. December 1981.
- Barlow, R. 1976. "Applications of a Health Planning Model in Morocco," International Journal of Health Services, 6(1), pp. 103-121.
- Barnum, H., Barlow, R., Fajardo, L., and Pradilla, A. 1982. A Resource Allocation Model for Child Survival, Oelgeschalager, Gunn and Hain, Cambridge, Mass.

- Baumol, W.J., and Bradford, D.F. "Optimal Departures from Marginal Cost Pricing." *Am. Ec. Rev.*, 1970.
- Birdsall, Nancy. "Strategies for Analyzing Effects of User Charges in the Social Sectors." Draft. Country Policy Department, July 1982.
- _____, and Punam Chuahan. "Willingness to Pay for Health and Water in Rural Mali: Do WTP Questions Work?" Draft. Country Policy Department, February 18, 1983.
- "Botswana Population, Health and Nutrition Sector Review." Population, Health and Nutrition Department, May 4, 1982.
- Brooks, R.G. Ghana's Health Expenditures 1966-1980: A Commentary Strathclyde Discussion Papers in Economics No. 80/1. Glasgow, Scotland: University of Strathclyde, 1981.
- Club du Sahel/CILSS (Comite Permanent Inter-Etats de Lutte Contre La Secheresse dans le sahel), Working Group on Recurrent Costs. Recurrent Costs of Development Programs in the Countries of the Sahel, Analysis and Recommendations. Ougadougou, October, 1980.
- "Colombia: Health Sector Review." Report No. 4141-CO, December 15, 1982. (This is an internal World Bank document with restricted circulation).
- Creese, A. 1979. Expanded Program on Immunization: Costing Guidelines. World Health Organization, Geneva, EPI/GEN/79/5, pp. 1-49.
- Culyer, A.J. and K.G. Wright (eds.) 1978. Economic Aspects of Health Services. Martin Robertson & Company Ltd., London.
- de Ferranti, D.M. "Some Current Methodological Issues in Health Sector and Project Analysis." PHN Technical Note 24, (This is an internal World Bank document with restricted circulation), 1983a.
- de Ferranti, D.M. "Background Information for Analysis of Financing and Resource Allocation Issues in Health Sector and Project Works." PHN Technical Note 23, (This is an internal World Bank document with restricted circulation), 1983b.
- Donaldson, Dayl S. 1982. "An Analysis of Health Insurance Schemes in the Lalitpur District, Nepal." University of Washington, Seattle, (unpublished dissertation).
- Drummond, M.F. 1980. Principles of Economic Appraisal in Health Care, Oxford University Press, New York.
- Dunlop, David W. 1982a. "A Linear Programming Approach to Health Planning in Developing Countries with an Application in East Africa," Social Science and Medicine (forthcoming), Mimeo.
- Dunlop, David W. "Health Care Financing: Recent Experience in Africa." Paper prepared for the Conference on Health and Development in Africa. Social Science and Medicine, Vol. 17, No. 24, 1984.

- Dunlop, David W., et al. Korean Health Demonstration Project. Project Impact Evaluation No. 36, U.S. Agency for International Development, July 1982c.
- Evans, John R., Karen Lashman Hall and Jeremy J. Warford. "Shattuck Lecture - Health Care in the Developing World: Problems of Scarcity and Choice." New England Journal of Medicine, Vol. 305, November 5, 1981, pp. 1117-1127.
- Feldstein, M.S. "Equity and Efficiency in Public Sector Pricing." Quarterly Journal of Economics, 1972.
- Favin, Michael and Associates. "AID Assisted Primary Health Care Projects: Summary Reviews." Washington: American Public Health Association, 1981.
- Feachem, Richard and others. Water, Health and Development. London: Tri-Med Books, 1978.
- Golladay, Frederick and Liese, B. "Health Problems and Policies in the Developing Countries." World Bank Staff Working Paper No. 412, August 1980.
- Gray, Clive S. "Issues in Defining and Measuring Recurrent and Capital Costs of Primary Health Care Interventions in Africa." Mimeo. June 1982.
- Gray, Clive and Nouhoum Sankare. "Notes Towards an Economic Analysis of the Mali Rural Health Project." Draft. Harvard Institute for International Development, June 1981.
- Griffiths, Adrian and Michael Mills. "Money for Health: A Manual For Surveys in Developing Countries," Sandoz Institute, Geneva. 1982.
- "Haiti: Population, Health and Nutrition Sector Review." Draft. Population, Health and Nutrition Department, World bank. November 1, 1982. (This is an internal World Bank document with restricted circulation).
- Heller, P.S. "A Model of the Demand for Medical Health Services in Peninsular Malaysia," Social Science and Medicine, 1982.
- Heller, Peter S. "Issues in the Allocation of Resources in the Medical Sector of Developing Countries: The Tunisian Case." Economic Development and Cultural Change. Vol. 27 (1), October 1978, pp. 121-144.
- Heller, Peter S. "A Model of the Demand for Medical and Health Services in Peninsular Malaysia." Center for Research on Economic Development, Discussion Paper No. 62. Ann Arbor: University of Michigan, 1976.
- Heller, Peter S. "Issues in The Costing of Public Sector Outputs: The Public Medical Services of Malaysia." World Bank Staff Working Paper No. 207. June 1975.

Howard, L.M. "What Are the Financial Resources for 'Health 2000'?", World Health Forum 2(1): 23-29, 1981.

Huet, P., A. Mansoor, D. Rossington and K. Yoshinari. "User Charges for Public Services in the Sahel," Mimeo. May 1981.

"Indonesia: Financial Resources and Human Development in the Eighties." Report No. 3795-IND, May 3, 1982. (This is an internal World Bank document with restricted circulation.)

Jancloes, M., B. Seck, L. van de Velden and B. Ndiaye. "Balancing Community and Government Financial Responsibilities for Urban Primary Health Services - Pikine, Senegal." Draft. Population, Health and Nutrition Department, November 24, 1981.

Jimenez, Emmanuel. "Pricing Policy in the Social Sectors: Cost Recovery for Education and Health in Developing Countries." Draft. Country Policy Department, World Bank. September 1984.

Laurent, Andre. Health Financing and Expenditures: Rwanda and Togo. Geneva: Sandoz Institute for Health and Socio-Economic Studies, 1982.

Lee, K. and A. Mills (eds.) The Economics of Health in Developing Countries, Oxford University Press, 1983.

"Lesotho: Population, Health and Nutrition Sector Report." Population, Health and Nutrition Department, December 16, 1981. (This is an internal World Bank document with restricted circulation.)

Little, I.M.D. and Mirrlees, J.A. 1974. Project Appraisal and Planning for Developing Countries, Heinemann Educational Books, London.

Mach E. and B. Abel-Smith. "Planning the Finances of the Health Sector," WHO, 1983.

Maxwell, R.J. Health and Wealth, D.C. Heath & Co., 1981.

McGreevey, William P. "Brazilian Health Care Financing and Health Policy: An International Perspective." Population, Health and Nutrition Department, November 1982. (This is an internal World Bank document with restricted circulation.)

McLachlan, Gordon and Alan Maynard (eds.) 1982. The Public/Private Mix for Health: The Relevance and Effects of Change.

Meesook, Oey A. "Financing and Equity in the Social Sectors in Indonesia: Some Policy Options." World Bank Staff Working Paper No. 703, 1984.

Meerman, Jacob. "Cost Recovery in a Project Context: Some World Bank Experience in Tropical Africa." Western Africa Regional Office, November 1982. Published in World Development 11:6; 1983.

- Meerman, Jacob. "Cost Recovery in a Project Context: Some World Bank Experience in Tropical Africa." Western Africa Regional Office, November 1982.
- Meerman, Jacob. "Public Expenditure in Malaysia: Who Benefits and Why." A World Bank Research Publication, 1979.
- Merrick, Thomas W. "Financial Implications of Brazil's High Rate of Caesarian Section Deliveries." Population, Health and Nutrition Department, World Bank, August 1984.
- Mesa-Lago, Carmelo. 1983. "Financing Health Care in Latin America and the Caribbean with a Special Study of Costa Rica."
- Munasinghe, M. and J.J. Warford. Electricity Pricing: Theory and Case Studies, World Bank, 1982.
- Newhouse, Joseph P. "Income and Medical Care Expenditure Across Countries." The Rand Paper Series, August 1976.
- Newhouse, Joseph P. The Economics of Medical Care. 1978.
- Olson, Mancur (ed.). 1981. A New Approach to the Economics of Health Care.
- Over, A. Mead. "Five Primary Care Projects in the Sahel and the Issue of Recurrent Costs." CILSS/Club du Sahel Working Document, 1982.
- Over, A. Mead. "Five Primary Care Projects in the Sahel and the Issue of Recurrent Costs." Summer 1979.
- "Pakistan: Health Sector Report." Draft. Population, Health and Nutrition Department, January 26, 1983. (This is an internal World Bank document with restricted circulation.)
- Pan American Health Organization, Financing of the Health Sector, Washington: PAHO, Scientific Publication No. 208, 1970.
- Parlato, Margaret Burns and Michael Neil Favin. "An Analysis of 52 AID-Assisted Primary Health Care Projects." American Public Health Association, International Health Programs, 1982.
- Prescott, N. and Dean T. Jamison. "Health Sector Finance and Expenditures in China." Population, Health and Nutrition Department, World Bank. May 1983.
- Prescott, N. and J. Warford. "Economic Appraisal in the Health Sector in LDCs." Draft. Population, Health and Nutrition Department, February 10, 1982.
- Prescott, N. 1980. "On the Benefits of Tropical Disease Control," in Wood, C., and Rue, Y. (eds.), Health Policies in Developing Countries, Royal Society of Medicine International Congress and Symposium Series No. 24, Academic Press, London, pp. 41-48.

- Ray, A. 1975. Cost Recovery Policies for Public Sector Projects, World Bank Staff Working Paper No. 206.
- Reynolds, Jack and K. Celeste Gaspari. 1983. Mimeo. "Cost-Effectiveness Analysis for Operations Research in Primary Health Care."
- Roemer, M.I. "Social Security for Medical Care: Is it Justified in Developing Countries?" International Journal of Health Services. Vol. 1 (4) 1971, pp. 354-361.
- Saunders, R.J. and J.J. Warford. Village Water Supply: Economics and Policy in the Developing World. Baltimore, The Johns Hopkins University Press, 1976.
- Selowsky, Marcelo. Who Benefits from Government Expenditure? A Case Study of Colombia. A World Bank Research Publication, 1979.
- Sgontz, Larry G. "The Economics of Financing Medical Care: A Review of the Literature." Inquiry, Vol. 9 (4), December 1972, pp. 3-19.
- Sharpston, M.J. 1972. "Uneven Geographical Distribution of Medical Care: A Ghanaian Case Study." Journal of Development Studies, 8(2) p. 210.
- Sorkin, Alan L. "Financing Health and Development Projects - Some Macro-Economic Considerations," Mimeo, 1976.
- Squire, L., and H.G. van der Tak. Economic Analysis of Projects, The Johns Hopkins University Press, 1975.
- Squire, L. "Some Aspects of Optimal Pricing for Telecommunications," Bell Journal of Economics and Management Science, 1973.
- Stevens, Carl M. "Assessing the Feasibility of Alternative Social-Financing Schemes for the Basic Services in LDCs," Mimeo, 1982.
- Stinson, W. "Community Financing of Primary Health Care," American Public Health Association, Primary Health Care Issues, Series 1, No. 4, 1982.
- Tait, Alan A. and Peter S. Heller. "International Comparisons of Government Expenditure: A Starting Point for Discussion." International Monetary Fund, July 7, 1981.
- Thobani, Mateen. "Charging User Fees for Social Services: The Case of Education in Malawi." World Bank Staff Working Paper No. 572, 1983.
- _____. "Pricing for Social Services Under a Subsidy Constraint: A Note." Country Policy Department, World Bank, March 4, 1983.
- Turvey, R., and Anderson, D. Electricity Economics: Essays and Case Studies. Baltimore, The Johns Hopkins University Press, 1977.
- Turvey, R. and Warford, J. "Urban Water Supply and Sewerage Pricing Policy," P.U. Department, PUN 11, 1974.

- "Upper Volta: Health and Nutrition Sector Review." Report No. 3926-UV, November 12, 1982. (This is an internal World Bank document with restricted circulation only.)
- USAID. Bureau of Program and Policy Coordination. Recurrent Costs Problems in Less Developed Countries, AID Policy Paper. Washington, D.C., May 1982.
- USAID. "Korea Health Demonstration Project," AID Project Impact Evaluation Report No. 36. Washington, D.C., July 1982.
- van der Gaag, J. and M. Perlman (eds.). Health, Economics, and Health Economics, North-Holland Publishing Company, 1981.
- Van Etten, G. 1972. "Toward Research on Health Development in Tanzania." Social Science and Medicine, 6, pp. 335-52.
- Warford, J. "Financing Rural Health Care," Interregional seminar on Primary Health Care, Yexian County, Shandong Province, Peoples' Republic of China. Draft. Population, Health and Nutrition Department, June 1982.
- Weber, Richard, Graham Kerr, Herbert Smith and Matt Seymour. "The Sine Saloum Rural Health Care Project in Senegal." AID Project Evaluation. Washington, D.C., April 1980.
- Weisbrod, B.A. 1961. Economics of Public Health: Measuring the Economic Impact of Diseases, University of Pennsylvania Press, Philadelphia.
- World Bank. Health: Sector Policy Paper, February 1980.
- World Health Organization. "Financing of Health Services," Report of a WHO Study Group. Technical Report Series No. 625, 1978.
- World Health Organization. "Guidelines for Preparation of the Country Health Resource Utilization Review (CRU) Document." Health Resources Group for Primary Health Care. COR/HRG/82.1.
- World Health Organization. "Review of Health Expenditures, Financial Needs of the Strategy for Health For All by the Year 2000, and the International Flow of Resources for Strategy." Report of the Director-General. EB69/7. Geneva, WHO, 18 November 1981.
- World Health Organization. Health Economics. Public Health Papers No. 64, 1975.
- "Zimbabwe Population Health and Nutrition Sector Review." 2 Volumes. Report No. 4214-ZIM, November 24, 1982. (This is an internal World Bank document with restricted circulation.)
- Zschock, Dieter K. 1983. "Medical Care Under Social Insurance in Latin America: Review and Analysis." Prepared for USAID.

Zschock, Dieter K. "Health Care Financing in Central America and the Andean Region - A Workshop Report." Latin American Research Review, Vl. 15 (3) 1980, pp. 149-168.

Zschock, Dieter K. Health Care Financing in Developing Countries. American Public Health Association International Health Programs Monograph Series No. 1.

Zschock, D.K., Robertson, R.L. and Daly, J.A. "How to Study Health Sector Financing in Developing Countries. A manual prepared for the Office of International Health, Department of Health, Education, and Welfare. November 1977, Washington: USDHEW 1977 (mimeo).

World Bank Publications of Related Interest

The African Trypanosomiasis: Methods and Concepts of Control and Eradication in Relation to Development

C. W. Lee and J. M. Maurice

Here is a practical cost-benefit approach to an age-old problem affecting humans and livestock alike, the African Trypanosomiasis. Describes new techniques that offer tsetse control without destroying game animals. Also summarizes current research in genetic control, the use of traps and screens, attractants, and pheromones.

Technical Paper No. 4. 1983 107 pages
ISBN 0-8213-0191-8 Stock No BK 0191
\$5

Analyzing the Impact of Health Services: Project Experiences from India, Ghana, and Thailand

Rashid Faruque

Staff Working Paper No 546 1982. 44
pages

ISBN 0-8213-0117-9 Stock No WP 0546.
\$3.

NEW

Child and Maternal Health Services in India: The Narangwal Experiment

What can primary health care and family planning do for women and children in the poor and deprived areas of the world? Some of the most specific evidence available today to support the benefits of these services is contained in these two studies, which represent the findings of research carried out during 1967-74 in twenty-six villages in Punjab, India. Members of the research staff, which started with 15 people and grew to about 150 by the end of the project, spent many years working with, and sharing the lives of, villagers. The depth of understanding that came from this type of sharing enhances the

value of these findings and provides valuable insights into possibilities for implementing mass programs for needy people in villages throughout the world.

Volume I: Integrated Nutrition and Health Care

Arnfried A. Kielmann and others

This volume provides detailed data suggesting that synergism between malnutrition and infection is probably the greatest cause of mortality, morbidity, and retarded growth and development in children. In an experiment over a period of four years, villagers received nutrition care, general health care to control infections, or both. Dramatic improvements, including a 40%-50% decline in mortality, a 20% reduction in duration of morbidity, and increases in height and weight. In addition, detailed information on costs is presented that permits the most complete analysis of cost-effectiveness and program relevant costs and benefits yet available in this kind of field research. The study focuses directly on practical program implications and ways in which such integrated services can be applied under field conditions.

The Johns Hopkins University Press. 1984.
288 pages

LC 82-23915. ISBN 0-8018-3064-8. Stock
No. JH 3064 \$24 50.

Volume II. Integrated Family Planning and Health Care

Carl E. Taylor and others

To village people, politicians, and international health planners, health and family planning have always seemed to fit naturally together. But in the early 1960s, when international awareness of the social and economic consequences of surging population growth moved family planning into a position of high priority, some international agencies began to advocate separation of family planning from health services. In international policy discussions the question continues to be important. This volume analyzes this question and provides arguments and evidence to support integration of health care and family planning; it outlines the purposes underlying the research in this area, and it proposes policy questions regarding the effectiveness, efficiency, and equity of such an integration.

The Johns Hopkins University Press 1984
256 pages

LC 83-23915 ISBN 0-8018-2830-9 Stock
No. JH 2830 \$22 50.

Demographic Aspects of Migration in West Africa—

K. C. Zachariah and others

Volume 1

Staff Working Paper No. 414. September
1980 369 pages (including statistical annexes, bibliography).

Stock No WP 0414 \$15

Volume 2

Staff Working Paper No 415 September
1980 391 pages (including statistical annexes, bibliography)

Stock No WP 0415 \$15.

(These Working Papers are background studies for Migration in West Africa Demographic Aspects, described in this section.)

Economic Motivation versus City Lights: Testing Hypotheses about Inter- Changwat Migration in Thailand

Fred Arnold and Susan H
Cochrane

Staff Working Paper No 416 September
1980 41 pages (including footnotes, references)

Stock No WP 0416 \$3.

Experiments in Family Planning: Lessons from the Developing World

Roberto Cuca and Catherine S.
Pierce

A comprehensive review of experimental efforts in the developing world to determine more effective ways of providing family planning services.

The Johns Hopkins University Press, 1978
276 pages (including bibliography, index of experiments)

LC 77-16596 ISBN 0-8018-2013-8, Stock
No. JH 2013, \$19 50 hardcover; ISBN 0-
8018-2014-6, Stock No. JH 2014, \$8 95
paperback

Family Planning Programs: An Evaluation of Experience

Roberto Cuca

Staff Working Paper No 345 1979 146
pages (including 2 annexes, references)

Stock No WP 0345 \$5

Fertility and Education: What Do We Really Know?

Susan H. Cochrane

A model identifying the many channels through which education might

Prices subject to change without notice
and may vary by country.

act to determine fertility and a review of the evidence of the relation between education and the intervening variables in the model that affect fertility

The Johns Hopkins University Press, 1979
188 pages (including bibliography, index).

LC 78-26070 ISBN 0-8018-2140-1. Stock No. JH 2140, \$6.95 paperback

Fertility and Its Regulation in Bangladesh

R. Arnin and Rashid Faruquee

Staff Working Paper No. 383, 1980, 54 pages (including references)

Stock No. WP 0383 \$3

Health

Fredrick Golladay, coordinating author

Draws on experience gained from health components of seventy World Bank projects in forty-four countries between 1975 and 1978. Emphasizes the disproportionately high expenditures incurred on curative medicine, maintenance of expensive hospitals, and sophisticated training of medical personnel at the cost of preventive care for the majority of the people. Points out that low-cost health care systems are feasible and recommends that the Bank begin regular and direct lending for health, in addition to having health components as part of projects in other sectors.

Sector Policy Paper, 1980, 90 pages (including 8 annexes, 4 figures, map)

Stock Nos. BK 9066 (Arabic), BK 9067 (English), BK 9068 (French), BK 9069 (Spanish) \$5

Health Issues and Policies in the Developing Countries

Fredrick Golladay

Staff Working Paper No. 412, 1980, 55 pages

Stock No. WP 0412 \$3

Health, Nutrition, and Family Planning in India: A Survey of Experiments and Special Projects

Rashid Faruquee and Ethna Johnson

Staff Working Paper No. 507, 1982, 108 pages (including references)

Stock No. WP 0507 \$5

Infant and Child Mortality as a Determinant of Fertility: The Policy Implications

Susan Hul Cochrane and K. C. Zachariah

An illustrative analysis that suggests infant mortality may be an important component of a fertility reduction program in countries where mortality is high and few couples are able to have the number of surviving children they desire.

World Bank Staff Working Paper No. 556, 1983, 44 pages

ISBN 0-8213-0147-0. Stock No. WP 0556 \$3

Integrating Family Planning with Health Services: Does It Help?

Rashid Faruquee

Staff Working Paper No. 515, 1982, 47 pages

ISBN 0-8213-0003-2. Stock No. WP 0515 \$3

Kenya: Population and Development

(See description under Country Studies listing.)

Migration in West Africa: Demographic Aspects

K. C. Zachariah and Julien Conde

The first study of the large-scale movement of people in nine West African countries. Discusses the volume and direction of internal and external flows and the economic and social characteristics of migrants.

A joint World Bank-OECD study. Oxford University Press, 1981, 166 pages (including 22 maps, bibliography, index)

LC 80-27352. ISBN 0-19-520186-8, Stock No. OX 520186, \$19.95 hardcover, ISBN 0-19-520187-6, Stock No. OX 520187, \$8.95 paperback

Population and Family Planning in Bangladesh: A Study of the Research

Mohammad Alauddin and Rashid Faruquee

Reviews major studies on family planning and on fertility trends, profiles, and determinants. Evaluates results of such studies and critiques their methodology and application. Underscores need for continued study and suggests directions for future research to improve the Bangladesh population problem.

World Bank Staff Working Paper No. 557, 1983, 176 pages

ISBN 0-8213-0150-0. Stock No. WP 0557 \$5

Population and Poverty in the Developing World

Nancy Birdsall

Staff Working Paper No. 404, 1980, 96 pages (including 2 appendixes, bibliography)

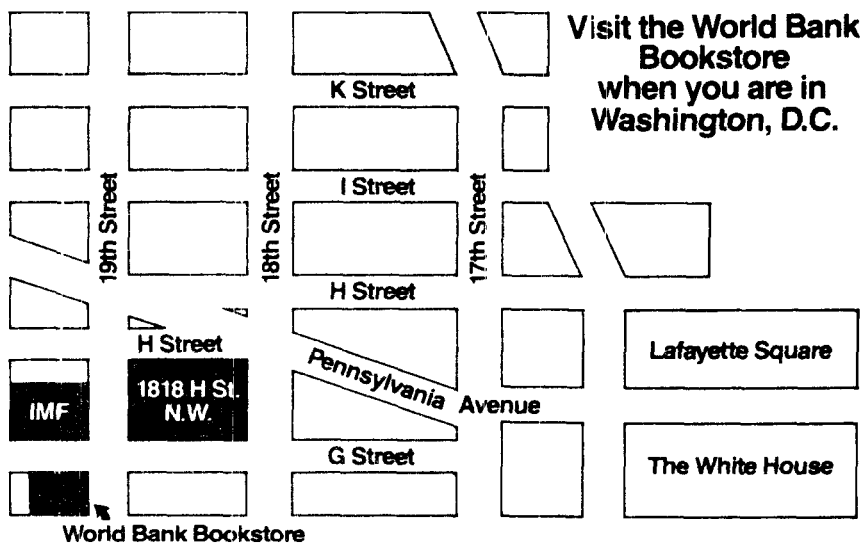
Stock No. WP 0404 \$3

Population Policy and Family Planning Programs: Trends in Policy and Administration

Kandiah Kanagaratnam and Catherine S. Pierce

Staff Working Paper No. 447, 1981, 80 pages (including bibliography, appendixes)

Stock No. WP 0447 \$3



World Bank Bookstore

NEW

Short-term Population Projection, 1980-2020 and Long-term Projection, 2000 to Stationary Stage by Age and Sex for All Countries of the World

My T. Vu, under the supervision of K. C. Zachariah

This report gives detailed population projections by age and sex for each country at five-year intervals from 1980 to 2020 and at twenty-five year intervals from 2000 to the year in which population becomes stationary in each country. The implied fertility and mortality measures are also given. Revised annually. The 1984 edition will be

published as *World Population Projections Short- and Long-term Projections by Age and Sex for All Countries, with Related Demographic Statistics*

1983 391 pages

ISBN 0-8213-0355-4 \$30 paperback

NEW

Rapid Population Growth in Sub-Saharan Africa: Issues and Policies

Rashid Faruqee and Ravi Gulhati

No other country has higher fertility than Kenya and its neighboring countries in Sub-Saharan Africa. This Working Paper examines the reasons for fertility rates staying high, even rising in the face of greater education,

falling mortality, and urbanization--factors that tend to lower fertility elsewhere. Calls for a viable population policy and programs appropriate to the culture.

Staff Working Paper No 559 1983 116 pages

ISBN 0-8213-0152-7 Stock Nos WP 0559 \$5

Regional Aspects of Family Planning and Fertility Behavior in Indonesia

Dov Chernichovsky and Oey Astra Meesook

Staff Working Paper No 462 1981 62 pages (including appendix, references)

Stock No WP 0462 \$3



The World Bank Publications Order Form

SEND TO: YOUR LOCAL DISTRIBUTOR OR TO **WORLD BANK PUBLICATIONS**
(See the other side of this form.)
P.O. BOX 37525
WASHINGTON, D.C. 20013 U.S.A.

Date _____

Name _____ Ship to: (Enter if different from purchaser) _____

Title _____ Name _____

Firm _____ Title _____

Address _____ Firm _____

City _____ State _____ Postal Code _____ Address _____

Country _____ Telephone (_____) _____ City _____ State _____ Postal Code _____

Purchaser Reference No. _____ Country _____ Telephone (_____) _____

Check your method of payment
 Enclosed is my Check International Money Order Unesco Coupons International Postal Coupon
 Make payable to World Bank Publications for U.S. dollars unless you are ordering from your local distributor.

Charge my VISA MasterCard American Express Choice. (Credit cards accepted only for orders addressed to World Bank Publications.)

_____ Credit Card Account Number _____ Expiration Date _____ Signature _____

Invoice me and please reference my Purchase Order No. _____

Please ship me the items listed below.

Stock Number	Author/ Title	Customer Internal Routing Code	Quantity	Unit Price	Total Amount \$

All prices subject to change. Prices may vary by country Allow 6-8 weeks for delivery.

Subtotal Cost \$ _____

Total copies _____ Air mail surcharge if desired (\$2.00 each) \$ _____

Postage and handling for more than two complimentary items (\$2.00 each) \$ _____

Total \$ _____

Thank you for your order.

Distributors of World Bank Publications

ARGENTINA

Carlos Hirsch SRL
Attn. Ms. Monica Bustos
Florida 165 4º piso
Galeria Guemes
Buenos Aires 1307

AUSTRALIA, PAPIA NEW GUINEA, FIJI, SOLOMON ISLANDS, WESTERN SAMOA, AND VANUATU

The Australian Financial Review
Information Service (AFRIS)
Attn. Mr. David Jamieson
235-243 Jones Street
Broadway
Sydney NSW 2001

BELGIUM

Publications des Nations Unies
Attn. Mr. Jean de Lannoy
av. du Roi 202
1060 Brussels

CANADA

Le Diffuseur
Attn. Mrs. Suzanne Vermette
C. P. 85 Boucherville J4B 5E6
Quebec

COSTA RICA

Libreria Trejos
Attn. Mr. Hugo Chamberlain
Calle 11-13 Av. Fernandez Guell
San Jose

DENMARK

Sanfundsletteratur
Attn. Mr. Wilfred Roloff
Rosenderns Alle 11
DK-1970 Copenhagen V

EGYPT, Arab Republic of

Al Ahram
Al Galaa Street
Cairo

FINLAND

Akateeminen Kirjakauppi
Attn. Mr. Kari Litmanen
Keskuskatu 1 SF-00100
Helsinki 10

FRANCE

World Bank Publications
36 avenue d'Iena
75116 Paris

GERMANY, Federal Republic of

VNO Verlag
Attn. Mr. Joachim Krause
Simrockstrasse 23
D-5300 Bonn 1

HONG KONG, MACAL

Asia 2000 Ltd
Attn. Ms. Cretchen Wearing Smith
5 Fl. 146 Prince Edward Road
Kowloon

INDIA

CBS Publishers Distributors Ltd
Attn. Mr. D. P. Vee
5 Ansari Road, Post Box 7015
New Delhi 110002
Branch offices in Bombay, Bangalore,
Kanpur, Calcutta and Madras

INDONESIA

Pt. Indira Limited
Attn. Mr. Bambang Wahyudi
Il. Dr. Sam Ratulangi No. 37
Jakarta Pusat

IRELAND

TDC Publishers
Attn. Mr. James Booth
12 North Frederick Street
Dublin 1

ITALY

Lucosa Commissionaria Simsoni SPA

Attn. Mr. Giancarlo Bigazzi
Via Lamarmora 45
50121
Florence

JAPAN

Eastern Book Service
Attn. Mr. Terumasa Hirano
37-3, Hongo 3 Chome, Bunkyo-ku 113
Tokyo

KENYA

Africa Book Services (E A) Ltd
Attn. Mr. M. B. Dar
P. O. Box 45245
Nairobi

KOREA, REPUBLIC OF

Tan Korea Book Corporation
Attn. Mr. Yoon-Sun Kim
P. O. Box 101, Kwanghwamun
Seoul

MALAYSIA

University of Malaya Cooperative
Bookshop Ltd
Attn. Mr. Mohammed Fahim Htj
Yacob
P. O. Box 1127, Jalan Pantai Baru
Kuala Lumpur

MEXICO

INFOTEC
Attn. Mr. Jorge Cepeda
San Lorenzo 153-11 Col. del Valle,
Deleg. Benito Juarez
03100 Mexico, D. F.

MIDDLE EAST

Middle East Marketing Research
Bureau
Attn. Mr. George Vassilou
Mitsis Bldg. 3
Makarios III Avenue
Nicosia
Cyprus
(branch offices in Bahrain, Greece,
Morocco, Kuwait, United Arab
Emirates, Jordan)

NETHERLANDS

MBE BV
Attn. Mr. Gerhard van Bussell
Noorderwal 38
7241 BL Lochem

NORWAY

Johan Grundt Tanum A/S
Attn. Ms. Randi Mikkelsen
P. O. Box 1177 Sentrum
Oslo 1

PANAMA

Ediciones Libreria Cultural Panamena
Attn. Mr. Luis Fernandez Fraguera R
Av. 7 Espana 16
Panama Zone 1

PHILIPPINES

National Book Store
Attn. Mrs. Socorro C. Ramos
701 Rizal Avenue
Manila

PORTUGAL

Libreria Portugal
Attn. Mr. Antonio Alves Martins
Rua Do Carmo 70-74
1200
Lisbon

SAUDI ARABIA

Libri Book Store
Attn. Mr. Akram Al Agil
P. O. Box 3196
Riyadh

SINGAPORE, TAIWAN, BURMA

Information Publications Private Ltd
Attn. Ms. Janet David
02-06 1st Floor, Pei-Fu Industrial
Building
24 New Industrial Road
Singapore

SPAIN

Mundi-Prensa Libros, S. A.

Attn. Mr. J. M. Hernandez
Castello 37
Madrid

SRI LANKA AND THE MALDIVES

Lake House Bookshop
Attn. Mr. Victor Walatara
41 Wad Ramanavake Mawatha
Colombo 2

SWEDEN

ABCE Fritzes Kungl. Hovbokhandel
Attn. Mr. Eide Segerback
Regeringsgatan 12, Box 16356
S-103 27 Stockholm

SWITZERLAND

Librairie Pavot
Attn. Mr. Henri de Perrot
6, rue Grenus
1211 Geneva

TANZANIA

Oxford University Press
Attn. Mr. Anthony Theobald
Maktaba Road, P. O. Box 5299
Dar es Salaam

THAILAND

Central Department Store, Head Office
Attn. Mrs. Ratana
306 Silom Road
Bangkok

Thailand Management Association

Attn. Mrs. Sunan
308 Silom Road
Bangkok

TUNISIA

Société Tunisienne de Diffusion
Attn. Mr. Salaheddine Ben Hamida
5 Avenue de Carthage
Tunis

TURKEY

Haset Kitapevi A. S.
Attn. Mr. Izzet Izereci
409 Istiklal Caddesi
Bevo. Iu-Istanbul

UNITED KINGDOM AND NORTHERN IRELAND

Microinto Ltd
Attn. Mr. Roy Selwyn
Newman Lane, P. O. Box 3
Alton, Hampshire GU34 2PG
England

UNITED STATES

The World Bank Book Store
600 19th Street, N. W.
Washington, D. C. 20433
(Postal address P. O. Box 37525
Washington, D. C. 20013, U. S. A.)
Baker and Taylor Company
501 South Gladiola Avenue
Mokenca, Illinois, 60954
380 Edison Way
Reno, Nevada, 89564
50 Kirby Avenue
Somerville, New Jersey, 08876
Commerce, Georgia 30599

Bernan Associates
4730-E George Palmer Highway
Lanham, Maryland, 20761

Blackwell North America, Inc
1001 Fries Mill Road
Blackwood, New Jersey 08012

Sidney Kramer Books
1722 H Street, N. W.
Washington, D. C. 20006

United Nations Bookshop
United Nations Plaza
New York, N. Y. 10017

VENEZUELA

Libreria del Este
Attn. Mr. Juan Pericas
Avda. Francisco de Miranda, no. 52
Edificio Galipan, Aptdo. 60 337
Caracas 1060-A

HG 3881.5 .W57 W67 NO.721

C.4

DE FERRANTI, DAVID M.

PAYING FOR HEALTH SERVICES
IN DEVELOPING COUNTRIES

The World Bank

Headquarters

1818 H Street, N.W.
Washington, D.C. 20433, U.S.A.

Telephone: (202) 477-1234

Telex: WUI 04145 WORLDBANK

RCA 248423 WORLDBK

Cable Address: INTBAFRAD
WASHINGTONDC

European Office

66, avenue d'Iéna
75116 Paris, France

Telephone: (1) 723-54.21

Telex: 842-620628

Tokyo Office

Kokusai Building
1-1 Marunouchi 3-chome
Chiyoda-ku, Tokyo 100, Japan

Telephone: (03) 214-5001

Telex: 781-26838

