
CURRENT CONCERNS

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**USER CHARGES
FOR HEALTH CARE:
a review of
recent experience**



Division of Strengthening of Health Services
World Health Organization

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User Charges for Health Care: a Review of Recent Experience.¹

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Synopsis

The way health care is financed affects its production and distribution. Changes in financing policy mean that shifts are likely in the profile of what type and quality of health services are available, and where, and by whom they are used. Thus, the efficiency and equity with which health care is provided and consumed and, in consequence, the health status of populations, may be affected. One particular type of financing change - user charges - has been employed in countries on all continents during recent years.

This paper reviews recent experiences with increases in user charges and their effect on the utilization of health care. It contrasts two distinct distributional objectives in health: demand and need, and argues that an increasing reliance on direct payments is likely to damage overall efficiency and equity, by rationing access according to ability to pay, and making access to care harder for the poorest - and neediest. Evidence from several countries of differences in utilization between rich and poor is presented, and recent accounts of sharp, and often sustained, drops in utilization following fee increases are presented and discussed.

Fee income, appropriately used, represents a small but significant additional resource for health care. Recent experiences appear to have concentrated on achieving cost recovery objectives, rather than on harnessing these to desired health outcomes. Appraisal of financing changes must be linked to probable health outcomes. Successful experience in linking these two is in short supply, and urgently needed.



¹ A draft version of this paper was presented at a UNICEF workshop on "Financing the Social Sector in the 1990s" in March 1990. I am grateful for comments on the draft by Dr Joan Rovira and Mr David Parker, but am responsible for any errors.

1. Economics, health, and health economics.

Medicine, health care, and money are inextricably linked. Less than a decade ago it was not uncommon to hear clinicians claim that their freedom to choose therapy in the best interest of the patient was, or should be, untrammelled by financial considerations. Today, the acknowledgment that trade-offs are inevitably made in the process of seeking and dispensing medical care, is widespread. "The physician as gatekeeper" was a subtitle in a recent paper in a popular scientific journal arguing, in a US context, the inevitability of some form of non-price rationing mechanism for access to health care, for a country whose health spending in the year 2000 is likely to exceed 15% of national income, (1).

From a position on the sidelines in the debate about the management of health care resources, economists appear to have moved to centre-field. Their authority in this context has been much strengthened by the swing in macroeconomic consensus, from a neo-Keynesian orthodoxy, in which the role of government as the prime economic regulator was stressed, to the current wisdom of the balanced budget, and the unsustainability of public commitments in the face of slow economic growth, increasing expectations and resistance to tax increases. The limitations of government, and the financial responsibilities of individual citizens, are now the principal underpinnings of the economic approach to development policy, including questions of social policy.

Internationally, these positions are embodied in the approach to growth and development of the major lending institutions, the International Monetary Fund and the World Bank. In relation to health, their manifestation in official policy statements is perhaps most clearly evidenced in the 1987 publication by the World Bank of "Financing Health Care: An Agenda for Reform" (2), which advocated greater reliance on user-charges, insurance mechanisms, the private sector, and administrative decentralization as the main pivots of policy change.

The influence of these agencies and their approaches to development policy is substantial, and they have been effective vehicles in supporting the rise in prominence of economists as arbiters of the direction of policy in health, as well as in other sectors of the economy, particularly in low and middle income countries. The "new view" thus represented attempts to bring areas such as health and education - previously recognized as special cases - into the standard approach to public sector pricing (3). Yet even within the industrialized countries diverse positions co-exist regarding the role of government and public agencies in general, and in relation to health in particular. There appears to be less debate regarding the responsibilities of government in health in the developing countries. There is, indeed, some evidence that policy-making in the health sector

of low and middle income countries is increasingly dominated by a particular economic perspective, which draws its applications from macroeconomics, rather than from a sectoral concern to optimize in the use of resources devoted to the promotion of populations' health status. The debate regarding modalities of financing appropriate to the health sector has become confused, as the perspectives of agencies with little or no specific concern for health status, but extensive responsibilities for improving the domestic and international fiscal deficits of poor countries, have contributed to the debate.

In this shift, the notion of "need" or "capacity to benefit" as the criterion of allocative efficiency is being replaced by the concept of demand. Whilst the linkages between the health sector and the economy are complex and multi-directional, health has a special role in the development process, and the pursuit of health objectives may, at times, need to be traded off against the pursuit of other objectives, such as revenue-raising. Such decisions need to be made in the light of the fullest information - about the scale of the losses or gains on both sides - so that pragmatic choices can be made in the general interest. This paper attempts to review recent evidence regarding the character of the trade-off between health objectives and one form of financial restructuring: shifting the burden of payment on to users of health care in the form of charges at the time of use.

Countries implementing structural adjustment programmes to restore their economic growth have occasionally adopted general financial policies which conflict sharply with health status objectives. Application of monetary, fiscal and pricing policy solutions to health as to other sectors has in some cases damaged health objectives, and has even been contradictory in its internal economic logic - because of inadequate awareness of the economics of the health sector. One example, taken from recent recommendations by an international agency to a sub-saharan African country, will illustrate. Attempting to improve productivity in the public sector's hospitals and, simultaneously, to contain costs, credits were made available on conditions of reduced length of stay and cost (4). A better understanding of the time profile of inpatient costs would have revealed that, since total costs per bed-day diminish towards the end of a typical case, increasing throughput would actually increase total costs on the public sector.

2. Allocating resources for health: ability to pay versus need.

It is not the intention in this paper to re-define controversy over the concept of need. About 15 years ago a health economist proposed, semi-seriously, that the word need should be banned in discussions with clinicians regarding the allocation of resources in the health sector (4). The controversy, then, was the conflict between the tendency of clinicians to recognize need in the patient confronting them, but not to think in

epidemiological or population-based terms when assessing morbidity and the capacity to benefit from health care interventions. Critical papers were written by economists on "needology". What health economists (and perhaps some clinicians) have subsequently accepted is that, to measure the performance of health care systems, some operational assessment of need is necessary. Health care being different from other commodities in the unbalanced nature of the information on the supplier side; and on the uncertainty and unpredictability of the incidence of illness - factors which can be summarized in the unusually weak position of the consumer (patient) as the best judge of his/her own interest - a socially efficient allocation of resources cannot simply be defined in relation to people's preferences (5).

Capacity to benefit, rather than expressed demand (ability and willingness to pay), becomes the yardstick against which the allocation of resources should be assessed. This means that the epidemiologist's perspective of patterns of morbidity and mortality, together with information regarding their causes, and information regarding the effectiveness of health care technology in altering the course of a disease, are factors which should be taken into account in assessing whether any particular configuration of health resources is socially efficient or not. In this respect, health economics and epidemiology have closely coincident perspectives; and much of the recent work in developing improved measures of health outcomes, including the Quality-Adjusted Life Years measures, has been the result of fruitful collaboration in these two areas (6).

A situation in which a given amount of health resources is concentrated on a population which is willing to pay for them, but will have little or no measurable health benefits from them, is less economically efficient than a situation in which the same resources are devoted to people with conditions for which medical science has interventions which are effective, and which are at low cost. The choice between need and demand as allocative devices is therefore a fundamental one: either the market determines the financing and consumption patterns for health care, or overall health status is pursued as the object of policy. In this respect WHO's Health For All commitment is a clear statement of concern with the health status of the population as a whole. The fact that the poor - and particularly the poor in developing countries - tend to have greater health needs/capacities to benefit from modern health technology - means that the direction of care to them should be a priority on economic efficiency grounds as well as on grounds of social justice. The primary health care approach is seen as a means to pursue both objectives simultaneously.

3. User charges and Health For All objectives.

Positive statements, clarifying that user-charges for health care are already a major source of revenue to the health sector

in most countries (if both government and non-government providers of health care are considered), have been mixed with normative statements urging a role for fees to instill an appreciation by consumers (patients) of the "true" value of health care provided free (or subsidized) at point of use. Perhaps inevitably, concern to promote cost-recovery in the health sector, as part of a general policy to re-structure the role of the government in the economy as a whole, has led to a narrow focus on revenue-raising as an end in itself. Countries have recently been compared in terms of their health sector cost-recovery records, for example (7). On at least one recent occasion, official over-optimism regarding popular willingness to pay has been acknowledged by a major revision in the announced schedule of charges.

Cost recovery in the health sector is a policy instrument, not a policy objective. As an objective in the for-profit sector of the economy, cost recovery (or more appropriately revenue-maximization) would have few objectors. National objectives in health policy are seldom simply stated, and will obviously differ from one country to another, and among different health-providing agencies within a country. The World Health Organization, and the commitment of its member states to Health For All, is associated with a distinctive policy stance. Health for All is an egalitarian, populist and participatory orientation to health policy, and in numerous of its documents it is possible to find special concern within the overall policy of Health for All with the health needs of vulnerable groups in populations, and with the needs of the least developed (ie poorest) communities and countries. WHO's members have thus endorsed a clearly egalitarian general policy orientation.

Such a commitment, a priori, implies no particular policy instruments. If Health for All objectives can be achieved by a fee-for-service, predominantly market-based financing and health care provision arrangement, this fits just as comfortably within the HFA goal as a system based on central-government finance and service provision.

This distinction between means and ends in policy is an obvious one, but one which has been lost sight of in recent discussions on financing. It is a point to which we will return later.

Fees serve two principal functions: they generate revenue from those patients who judge the service to be worthwhile at the going price; and they divert patients who either cannot pay, or who judge the services less desirable than some alternative, to other sources of care. Both of these functions can be performed by other mechanisms than user charges, of course, but is important to note that fees will have more than one effect.

4. User charges as a source of finance for health care.

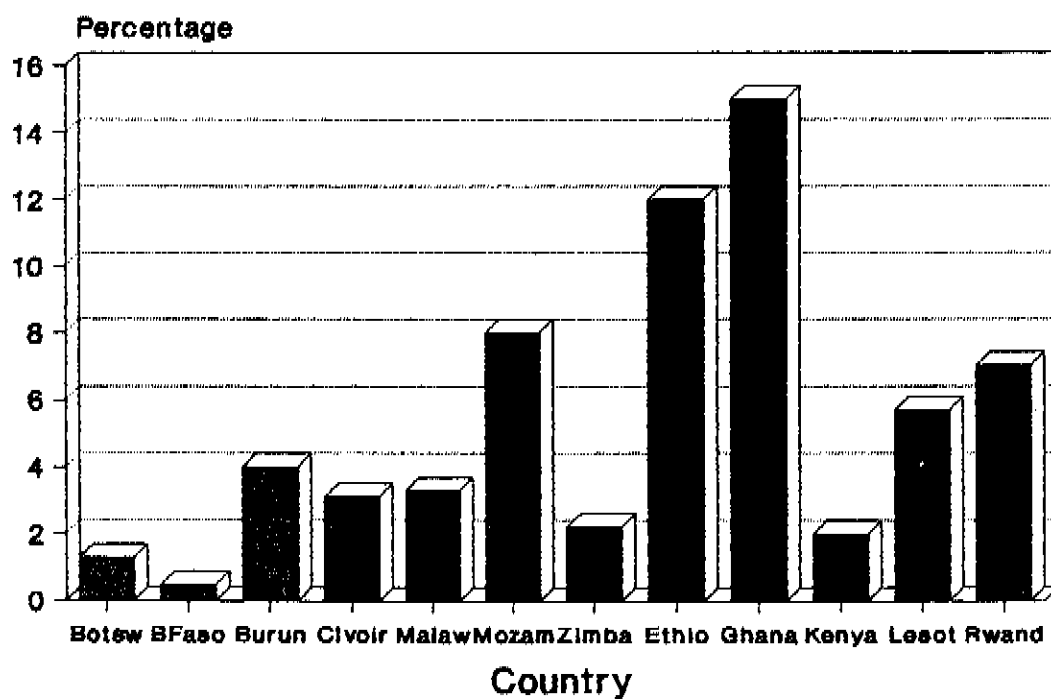
People everywhere are accustomed to paying for some of the components of their health care. Many health care products and services are distributed through conventional for-profit markets: pharmaceuticals are a leading example. Over-the-counter sales of pharmaceuticals are important even in countries whose health systems are highly regulated by governments. Recent evidence shows that people in poor countries may actually be more familiar with the costs of health care than families in richer societies. A recent study of health expenditure in Mali, for example (per capita income \$180) has shown that direct payments for health care by consumers account for 74% of health spending, and that health expenditures by the government only accounts for about 20%; (8). In contrast in the USA, with a per capita income of over \$18,000, expenditures by the various public agencies for health care, principally states and the federal government, are close to 50% of the total health spending (9). In most other industrialized countries, the public share of the total health bill is even greater.

How important are fees in the developing country context as a potential source of revenue? The question cannot easily be answered in the abstract: since the answer depends on what the quality of the health care services is seen to be by the consumers, on the purchasing power of the consumers, and of the prices of other goods and services. Some evidence of the current role of fees in health financing can be found by looking at actual cost-recovery experiences in countries. On recent information Ghana is an African, if not a World leader, by recouping 15% of recurrent expenditures by the government for health in the form of fees. Figures given by Vogel (10) are summarized in Figure 1. Revised estimates of fee potential have recently been made for several countries, but the experience of most poor countries, at least in Africa is that fee systems current yield - gross - averages around 5% of operating costs.

The distinction between net and gross yield is important: in some cases - even in industrialized countries with relatively strong administrative systems- the costs of collecting fees are considered, for major areas of health care, to outweigh their total yield. The data in Figure 1 do not take account of the administrative costs of the fee-collection process; net yields would therefore be lower, and in some cases negative. In such circumstances user charges are clearly inefficient as revenue-raising devices.

Whilst an average of 5%, and a current maximum of about 15 per cent of expenditure is an important sum, it is clearly a contributory rather than a determining force in financing of public health. Discussion of experiences with the use to which fee income has actually been directed is postponed to a later section; but it should be noted at this stage that there are no

Figure 1: Sub-Saharan Africa: revenue from fees as % of ministry health budget



Source: Vogel, R. 1989

large-scale experiences of fees having been used to improve the quality and accessibility of services in a way that would compensate for the regressive effects of charges.

Related to the issue of fee income is the question as to how fee schedules should be set. Economic theory states that, for profit maximization, revenue should be set to equal marginal cost; such a principle in the health sector would entail full-cost pricing. Musgrove has attempted to reconcile the trade-off between revenue-generating and equity by proposing that the point on the demand curve at which demand becomes inelastic with respect to price should be the point at which prices are set (11), but this approach has major empirical difficulties.

More prosaically, relating fees to health service costs - a desirable objective in a commercial setting - may overlook the fact that cost structures themselves, particularly in state-run systems in poor countries, are distorted and inefficient. Such cost structures are, in fact, part of the problem that "structural adjustment" is intended to correct. Regular surveys in the international business press establish that "living costs" for business expatriates are much higher in the poorest countries of Africa than they are in more open Asian or European economies) Similarly in health care, drugs costs are sometimes higher in poorer countries because of their purchasing policies. This, in combination with poor management of supplies and controls on prescribing, may mean that the costs of basic health care are substantially higher than they need be.

Should the costs of such a system be taken as a basis for cost recovery? Brunet-Jailly (12) has argued that, in such circumstances - and they are common - priority should be given to the better containment of costs which in principle are subject to the control of the public sector. Even without considering differentiated tariffs by income group, health facility level, or illness condition, the question of how to set fees is thus a complex issue.

The relatively limited potential of direct user-charges as a financing source in poor countries, and the question of inefficient cost structures, both point to the major issue of potential economies by rationalization of existing health care structures and processes. Wastage by under or over-utilization of facilities, people, and health inputs, is an inadequately studied issue. The small number of careful assessments of the value of "wasted" resources, however, puts them as very large in the health systems of rich and poor countries alike. A study in Malawi suggested that 44% of non-salary recurrent budget expenditure of the principal hospital in that country could be saved by a series of simple management improvements. The study of Mali's financing options suggested potential savings by better management of pharmaceuticals of up to 40 % of existing expenditures. In the USA, estimates of inappropriate use of hospital resources are between 6 - 40% of admissions, and 20% of

bed-days (13). Much bigger potential cash savings are argued to be available from the elimination of "useless medical practices" Overall savings of some \$20 billion are thought possible (1, op cit.). For the countries of the Americas as a whole, an estimated 25% of total health expenditure is wasted. Though fragmentary, the evidence is of huge potential economies by better resource use within the existing system. Such information is no secret, of course, and is one of the contributory reasons why the government health sector is such a weak party in the negotiation of financial support. Its own house is transparently not in order.

5. Evidence from recent experiences with user-charges.

In this section recent experiences with the management of user-charges for health care at both government and non-government health facilities are selectively reviewed. Three principal sources of experience are considered:

- i) Studies of community financing;
- ii) Studies of demand patterns; and
- iii) Studies of utilization of health facilities

i) Studies of community financing.

Community financing has diverse interpretations. Stinson (14) uses the phrase to mean that contributions are made to support part of the costs of health care by individuals, families or community groups; in cash, in kind, or in labour. Individual household spending on medical care through ordinary free market purchases of goods and services, however, is not normally thought of as community financing. Often community financing is additionally understood to entail "some collective effort directed at the creation of health facilities" (15). The notion of community involvement in defining and negotiating the transactions regarding the supply and purchase of health care, albeit on a subsidised basis, appears to be an important component of the community financing approach.

Community financing has been employed in many documented cases to support either capital or operating costs of health activities, or both. As capital contributions, Donated time, and purchases of raw materials by communities, have often produced "community-financed" health facilities which government has then been asked to staff and supply. The widespread and spontaneous investment by communities in such facilities has occasionally been an embarrassment to governments, for whom the recurrent budget of the health sector is frequently inadequate for the proper functioning of existing facilities and staff. There is widespread evidence, even in poor communities, of a willingness of communities to make sacrifices for the construction or upgrading of health posts or even hospitals (16).

Community financing of the operating costs of health services has, in all documented cases, been a minority contribution. Reviewing the community contribution to a large project in Indonesia (17), the profile of contributions from various sources were as follows:

source (%)	years	1983-85
Government		16.5
Community		21.7
Hospital		13.5
Donor		48.3

It should be noted that these figures underestimate the value of external support by omitting the costs of two expatriate staff and overseas training for project staff.

An influential study in Benin showed (18) that a peak of 85% of operating costs was recovered in a community-based project. In this case these costs were defined to include drugs, remuneration of the village health worker, cold chain functioning and maintenance. Salaries of public employees, supervision costs etc were not included.

Most successfully, perhaps, the community financing of the costs of pharmaceuticals has been achieved, often through revolving funds. To ensure that drugs costs are affordable for the communities in question, special purchasing, selection and prescribing, with support external to the project, have often been parts of the project, as wastage in each of these areas can easily lead to a doubling of costs to consumers. Since pharmaceuticals costs are typically the second biggest component of recurrent costs of health care (after salaries), the full or partial coverage of this item from community financing sources is an important factor. Further, the availability of appropriate medication at the first point of contact with the health care system is probably one of the most important components of the quality of primary care, and therefore a primary determinant of utilization. Utilization patterns at health centres with frequent "stock-outs" (interruptions in the supply of drugs) in some African countries show trends that coincide closely with the arrival and exhaustion of pharmaceutical supplies at the health unit.

Thus, community financing entails an important management component - to control the level of costs to the community, and in mobilizing the necessary subsidies from outside the community to cover the balance of the system's operating costs. Most documented community financing initiatives in the health sector have these outside stimuli, whether from government or non-government sources, domestic or foreign.

Problems with access to services by the poorest are still

noted in several studies (19, 20). In communities where per capita annual income may be well below \$100, even the costs of a well-managed supply of drugs may exceed the capacity to pay of large numbers of people.

In its review of community financing for health the Christian Medical Commission concluded that it is unlikely that a PHC programme will ever be fully self financing, and that health programmes need a balanced mix of financing. A separate and independent review (15, op cit) concluded that, whilst community financing has a definite role to play in extending the activities of the health sector in developing countries, it also has important limitations in its scope and effects. In particular they identified problems with both the level and the long-term stability of revenue, and an inability of community financing to help with foreign exchange needs of the health sector. They concluded that supervision, logistical support, referral linkages and evaluation will almost always need to be financed from other sources. The authors continued: "One of the more serious limitations of community financing mechanisms, however, is their inability to bring about greater equity...(community financing) tends to exacerbate existing inequalities within communities."

In his review of over 100 projects, Stinson concludes "Community financing is, at best, only a partial solution, that ...may be more difficult and less effective than the reallocation of current resources, and that governments have to facilitate and encourage it, not impose."

ii) studies of the demand for health care

Several recent studies have modelled the complex relationships between patients' expression of demand (ie attendance) for particular types of health care and such factors as their health status, age, sex, education and income level. An understanding of the determinants of demand is important to health policy-makers if they wish to encourage certain patterns of service use (eg of certain services, at certain locations, by certain groups of the population) and discourage others.

The principal application of econometric assessments of demand, however, is not in the health sector. Most demand analysis is undertaken to provide information to governments or to companies about the effect of price-changes on the consumption of specific goods and services. Thus, in projections of government revenue, forecasts can be made of the likely yield of tax changes on commodities such as petrol, tobacco or beer. In general, the questions on which demand studies shed most light are of the type: "What would happen to total revenue if there were to be a x% increase in the price of....", and the relatively recent nature of studies of the determinants of demand for health care in developing countries should be seen in the context of the need to re-think financing strategies in general, and the role

of user-charges in particular.

Recent studies have led to some widely divergent interpretations of the relationship between prices and incomes, on the one hand, and the demand for health care on the other. Akin, examining the demand for outpatient services in one region of the Philippines, concluded "price and distance are not nearly as important as determinants of demand as usually assumed" (21) and argued for greater scope for the full or partial financing of outpatient services from user fees as a result of this conclusion.

Other studies have concluded that "low household income is a barrier to the use of modern primary medical services, even where they are publicly provided" (22), and have found proportionally bigger reductions in demand by low income groups than among the better-off (23). The current controversy centres not so much on the fact that demand for health care falls as prices (measured to include travelling costs and waiting time of patients and accompanying relatives, as well as cash outlays for care) rise, but on the question of HOW MUCH demand responds to a price change, and in WHICH social groups. Divergence among empirical conclusions is perhaps not surprising, given the technical difficulties in undertaking demand studies, and given the absence, to date, of studies examining the effect of actual policy changes. In a 1987 review, Griffin (24) concluded: "none of the (demand) studies refers to actual field experiments in which user fees were introduced and their effects studied: all are computer exercises. The existing studies all make deductions about policy change based on cross-sectional comparisons among a sample of households.

The fact that these studies examine household expenditures and decisions regarding the use of health care has contributed importantly to the understanding of the choice process. The complexity of perceived choice of care options in developing country contexts, for examples, has been revealed by studies undertaken since Mwabu's important work in Kenya (25). But the effects of different types of payment system (flat fee, differentiated fees, fees for episode or per item of service, prepayment versus payment at time of use, etc) remain underinvestigated. The importance of perceptions of quality of care as influences on service use remain inadequately modelled; indeed professional disagreement about the appropriate way to model demand reveals the relative infancy of this analytical approach in the special context of predicting health behaviour.

Methodological problems apart, there remains a deeper reason for concern about the use of demand studies, which is related to the distinction between demand and need made above. Demand measuring techniques have been developed mainly to inform pricing decisions; and the importance of pricing decisions is because of their relationship to the total revenue (and hence profitability) of an organization or business. As has been argued above,

however, even in a health care system pursuing vigorous cost-recovery objectives, efficiency in the consumption of health services necessitates a need/morbidity/capacity to benefit criterion being used to assess whether resources are being most cost-effectively deployed and consumed, rather than simply a willingness to pay index and a total revenue objective. Demand studies thus, for both practical and conceptual reasons, are not a relevant means for assessing the policy goals of efficiency and equity in the use of health resources.

iii. Reviews of health services utilization

Static studies of utilization, in which utilization rates are correlated with age, morbidity, etc; can be distinguished from dynamic studies, which are concerned to assess changes in utilization resulting from a policy change.

In the first category are studies such as those of Bangladesh by Stanton and Clemens (26) and of Indonesia by Chernichovsky and Meesok (22, op cit). These have documented the predominance in the use of government health services in Bangladesh by the high risk populations - the poor and females. A similar picture in Indonesia, of public health care services being more important to the poor than to the rich is documented, and it is explained that low income is a barrier to the use of modern care even when publicly provided. Preferences among the poor in Indonesia were established to be in favour of modern, rather than traditional providers, and the authors conclude: "from a policy perspective it is clear that the provision of modern health services is a necessary but not sufficient condition for equitable access to these services...households' ability and willingness to pay for services are policy concerns as well. Whilst true that the poor are prepared to pay for services of traditional practitioners, low-cost public services may be the best way of introducing modern medical care to the poor and uneducated."

The paper by Stanton and Clemens makes the further argument that the more vulnerable populations in health risk terms are also those populations where the public benefits from the prevention or cure of transmissible disease are greatest. The benefits to populations as a whole of reduction of transmissible disease in the most disease-prone members of the population is of more than benefit to those high-risk individuals, as it reduces risks to the whole population. Such "external consumption benefits" to health care for targeted populations are a strong economic argument for management of the market for the provision of health care, to ensure that sub-optimal amounts of these "public good" services are not produced by the normal functioning of the market mechanism.

A recent and nationally representative study of hospital utilization in the USA, shows that "significantly lower" percentages of uninsured patients are admitted to for-profit

hospitals than to secular or church-affiliated non-profit hospitals and public hospitals. Sharp differences in length of hospital stay were also observed, with uninsured patients having shorter average stay and higher rates of transfer. The authors conclude: "the continued shrinkage of the public hospital sector has potentially serious implications for the overall supply of care to the poor which must be addressed by policy makers at all levels of government." (27)

A similar case is documented, also in the USA, in relation to utilization of health care by one specific illness group - hypertensive patients. Shulman et al (28) identified patterns of lower use of both medication and medical care by lower income, and higher risk patients. Observing that a greater portion of earnings must be allocated by low-income patients to blood pressure control, the study found the financial factor is important in determining the number of uncontrolled moderate to severe hypertensives with low income in the population.

Several recent papers have been able to review the effect of policy changes on health systems utilization patterns. Though methodologically simple, in comparison with some of the demand modelling which has been undertaken, these studies do show important developments in the pattern of health services access following a financing change, and they provide "corroborative evidence" that the use of health services by the poor is more affected by price increases than use by the rich (3). Furthermore, the experience in this area is not confined to that of low income countries: similar trends - and similar policy conclusions - have been drawn from utilization reviews in industrialized countries.

A study in Zaire showed that a rapid relative increase in the price of health care (in comparison with changes in price of a standard food item - eggs) led to sharp falls in the demand for curative contacts,, prenatal and under-five clinic visits. The overall utilization rate fell from 37% to 31% in a defined population, and the coverage rate for prenatal contacts fell from 95% to 84% (20, op cit). As in other studies, the authors concluded that, at low income levels, the demand for health care (of constant quality) is more elastic with respect to price among the poor than in the higher income groups. The authors concluded: "the amount recoverable through user-fees was not as large as had been expected...over-high pricing may exert an unacceptable cost in terms of service accessibility and thus very likely also in terms of equity."

Studies of the effect of large increases in fees for health care provided by government in Ghana were undertaken retrospectively to compare utilization levels before and after the major increase in 1985. An initial study in one district observed sharp drops in utilization at all government health facilities, and over a two-year period it was observed that the drop in utilization at rural health units was sustained (29). At

the urban health centre, attendances gradually rose back to their pre-1985 level over a two year period. A larger-scale study, encompassing nearly 25% of all the government health facilities in Ghana, confirmed this general pattern (30). In pure cost recovery terms, however, this was an exceptionally successful experience, with 15% of operating costs being recovered. The trade-off between cost-recovery and utilization has been documented: the losses in terms of health status are more difficult to measure. It is clear from the accompanying enquiries that there was substantial diversion of rural demand to unlicensed sellers of drugs.

An important contrast with the experience of the government health facilities was with the mission facility, which initially charged higher fees, and which sustained a policy of gradual fee increases with rising living costs throughout the period under review. Attendances increased at the mission clinic - presumably some because of demand diversion, but the higher perceived quality of care is obviously a factor which can radically alter utilization patterns, even with substantial price differences. Aggressive "means testing" of patients in terms of their ability to pay is reported to be practised at many mission clinics, showing that discriminatory fee systems to protect the genuinely poor can be implemented. Sensitivity to price and quality differences from different providers was observed in one of the earliest health care demand studies in a developing country (31).

The larger of the two utilization studies in Ghana also suggested some concentration in the age-group continuing to use government services at the higher prices, towards the economically active group: there were more rapid declines in use by the population under 14 and over 45 than in the remainder of the population.

A study in Swaziland showed substantial demand diversion as a response to a policy decision to raise charges by 300% to 400% at government health units, to the same levels currently being charged by non-government (mission) providers of care (32). No accompanying quality increase was perceived by patients, and accordingly there was an abrupt and large scale shift in utilization away from government sources of care (a 32.4% drop overall) and towards mission facilities (a 10% increase). This meant an overall drop of 17.4% in utilization, and a substantial number of patients moving away from modern medicine to unrecorded sources of care or no expressed demand. One year after the initial price changes there was evidence of further declines in the level of use of government facilities.

Although not household-based, the author's impression is of a disproportionate drop in utilization by the poorest, and in particular of declines in the use of government services for sexually transmitted disease and respiratory diseases, leading the author to conclude that "the wrong people have left the

system". There thus seems to be some further validation of the experience reported from Bangladesh, that fees are likely to damage the health interests of the population at large by deterring patients with communicable diseases.

A 1989 study in Lesotho, monitoring the effects of increases in fees at government health facilities from July 1988 concluded:

"Attendances at all (government) facilities examined dropped appreciably immediately after the increase in fees, particularly at mountain facilities. At lowland facilities attendance levels began to creep back up again, just a few weeks after the rise. The trends in the data from these facilities...suggest that attendance levels would soon be at their pre fee-increase levels. This is not the case for hospitals and health centres in the mountainous areas.

A second issue for concern is the impact on the 0-5 age group. This group, the most vulnerable sector of the population, appears to have suffered most as a result of the fee increase." (33).

A study of the recent experience in the United Kingdom (34) of extending and raising the charges for certain services provided by the National Health Service compared exempt and non-exempt patients, and found that, for dental care the non-exempt are:

- * four times more likely to receive emergency care only;
- * 340 times more likely to receive a check-up only;
- * and, when receiving treatment, receive 40% less treatment.

The authors quote Canadian experience as having shown that the introduction of consultation fees in one province led to a reduction in attendances by the poor three times bigger than that of the population as a whole. Together with the Rand Insurance study in the USA, the authors conclude "the findings imply that at least some of the service utilization deterred by charges leads to adverse health outcomes."

Conclusions.

Innovative financing experiments for health care are an important potential source of experience. The bases for generalization are still inadequate, but some indicative common experiences with fees appear to emerge from the above.

The bulk of the available evidence appears to confirm that, whilst user-charges for health care can generate additional income, they also deter the patients at greatest risk, and for whom the most cost-effective interventions (both preventive and curative) are available. The demand-diversionary effect of

charges thus appears to be having important effects: it is not simply "frivolous" utilization that is being diverted. Although the evidence on health status is, and will remain for some time, difficult to document with precision, it seems clear that a trade-off between health status and revenue-generation is being implemented, often unwittingly. Equity in health care is thus deteriorating - already measurably, in access to care terms, and probably also in health status differentials between socioeconomic groups.

What of efficiency? In principle, the welfare losses which result from a fee increase (denied access to some, less utilization by others) could be a source of welfare transfers. If fee income were channelled into improvements in service quality and accessibility, and priority was given in the use of these resources by needy populations, the user-charge system could be a redistributive vehicle, taxing the better off and further subsidizing access to care for the indigent. To assess to what extent this is happening from the experiences summarized above would suggest that there is little evidence as yet of any redistribution of access to health care.

The administrative context of cost-recovery is an important and under-examined issue. In none of the preceding sections has there been discussion of the uses to which revenue collected may be put. The focus has been on the effect of fees on utilization, and in particular on the deterrent effect of utilization on those in the lowest income groups.

In some countries revenues to the health sector at any level revert wholly to the Ministry of Finance as revenue. Fees in the health sector are thus not an instrument of health policy, but a means of fiscal policy, with the health ministry being a tax-collecting agency. From the viewpoint of the Ministry of Health's own objectives, such arrangements can only be considered tolerable when the fees serve as a means to influence demand in a way that allows the health care system to operate more efficiently. Such might be the case if fees were progressive (ie proportionally related to income) and progressive in relation to the "essential" or "optional" nature of the health intervention (for example, higher for cosmetic surgery than for measles immunization). But even then, if the objective of policy were to influence utilization patterns, the question would have to be asked as to what non-fee alternatives exist.

A variety of alternative mechanisms for rationing access to health care exist, ranging from statutory entitlement at one extreme, to non-provision (eg of hip replacement therapy) at the other. In between are numerous methods for the deterrence, dilution, and delay of access to care, or of the assignation of priority to particular population groups. Since fees have important side-effects other than acting as "signals" to consumers, many alternative and less clumsy ways of rationing access could be considered.

In the fee system implemented in Ghana in 1985, and in many other countries experimenting with cost-sharing, some retention of fee income within the Ministry of Health is allowed by central government. Again, the administrative details are crucial in determining whether these revenues have the potential to be broadly redistributive in their effect on access to health care. Of course the costs of fee collection need to be lower than the yield from charges for the cost recovery system to offer any net benefits to the Ministry of Health. In several contexts this is known not to be the case (35).

Elsewhere, and in most community financing activities, fees are retained wholly at the level or institution where collected. Studies of the use of these sums in Ghana suggests that, although the functioning of the local health units was improved by the possibility of making local purchases for maintenance, minor repairs etc, the effect on service quality was too little or too slow to re-attract patients originally deterred by the price increase.

Problems have been documented in several instances regarding the management of locally-retained funds, and as yet there is no documented account of access or quality improvement through local management of funds leading to increases in access or to better health outcomes. This is an area in which further technical support for implementation, and better documentation of experience, is urgently needed.

In summary;

User charges have a potential contribution to improving the financial base of the health sector. They also deter those people whose health needs are greatest. Carefully discriminating fee systems are therefore necessary to ensure that revenue is provided only by those who can afford to pay, and that resulting income improves the quality and accessibility of health care targeted at the poor.

This entails means-testing of patients in a way that does not jeopardize their access, and re-distributing the funds to primary health actions at the peripheral level. The most promising potential location for enforcing payments related to use would seem to be in the use of in-patient services in secondary or tertiary care facilities. Is it realistic to pursue such a selective revenue-raising system, expecting a transfer on revenue collected away from the hospitals which yield the bulk of the income, for quality improvements of the primary health care system? Administrative and political realities in poor countries argue against the successful operation of such a scheme; and of the consequent need to continue exploring alternative options. At the same time, the search for reliable evidence of successful fee collection and re-cycling schemes remains urgent.

References:

1. Aaron, H and Schwartz, W.B: Rationing Health Care: The Choice Before Us. Science, vol 247, pp 418-422, 26 January, 1990.
2. Financing The Health Sector: An Agenda for Reform. The World Bank, Washington DC, 1987.
3. Jimenez, E: Social Sector Pricing Policy Revisited: A Survey of Some Recent Controversies. Proceedings of the World Bank Annual Conference of Development Economics, 1989: comment by Stern, N.
4. Sanchez, M et al: Study of the Impact of Economic Adjustment Policies on the Health Situation in Mozambique, unpublished report, 1988
5. McGuire, A, Henderson, J and Mooney, G: The Economics of Health Care. Routledge & Kegan Paul, London, 1988.
6. Culyer, A.J. (Ed): Health Indicators, Martin Robertson, Oxford, 1983.
7. Vogel, R: Cost Recovery in the Health Care Sector - selected country studies in West Africa. World Bank Technical Paper number 82, World Bank, Washington DC, 1988.
8. Abel Smith, B and Creese, A.L (Eds): Recurrent Costs in the Health Sector - problems and policy options in three countries. World Health Organization, Geneva, 1989.
9. Organization for Economic Cooperation and Development: Measuring Health Care 1960-83, OECD Social Policy Studies number 2, Paris, 1985.
10. Vogel, R: Trends in Health Expenditures and Revenue Sources in Sub-Saharan Africa. Background paper prepared for African Health Policy, World Bank, Washington DC, 1990.
11. Musgrove, P: What Should Consumers in Poor Countries Pay for Publicly Provided Health Services? Social Science and Medicine, 1986.
12. Brunet-Jailly, J: Le Financement de la Sante dans les Pays Pauvres: Recouvrir les Coûts ou les Reduire? Background Paper for African Health Policy, World Bank, Washington DC, 1990.
13. Payne, S.M.C: Identifying and Managing Inappropriate Hospital Utilization: a policy synthesis. Health Services Research, 1987.
14. Stinson, W: Potential and Limitations of Community Financing. World Health Forum, 1984.

15. Abel-Smith, B and Dua: Community Financing in Developing Countries: the potential for the health sector. Health Policy and Planning, 1988.
16. Waddington, C et al: Financial Information at District Level: Experiences from Five Countries. Health Policy and Planning, 4,3, 1989.
17. Christian Medical Commission, Financing Primary Health Care Programmes: Can they be Self-Sufficient?, Geneva, 1987.
18. Alihonou, E et al: l'Utilization du Medicament Essentiel Comme Base du Financement Communautaire: une approche de la mise en oeuvre de la strategie soins de sante primaire dans un pays de revenue faible. Unpublished.
19. Carrin, G: Community Financing of Drugs in Sub-Saharan Africa. International Journal of Health Planning and Management, 1987.
20. Bethune, X de, et al: The Influence of an Abrupt Price Increase on Health Service Utilization: evidence from Zaire. Health Policy and Planning, 1989.
21. Akin, J.S et al: The Demand for Adult Outpatient Services in the Bicol Region of the Philippines. Social Science and Medicine, 1986.
22. Chernichovsky, D and Meesok, O.A: Utilization of Health Services in Indonesia. Social Science and Medicine, 1986.
23. Gertler, P et al: Are User Fees Regressive? The Welfare Implications of Health Care Financing Proposals in Peru. Journal of Econometrics, 33, 1987
24. Griffin, C: User Charges for Health Care in Principle and in Practice. Economic Development Institute Seminar Paper 37, World Bank, Washington DC, 1988.
25. Mwabu, G: Health Care Financing in Kenya: A Simulation of the Welfare Effects of User Fees. Social Science and Medicine, 22, 1986.
26. Stanton, B, and Clemens, J: User Fees for Health Care in Developing Countries: A Case Study of Bangladesh. Social Science and Medicine, 29, 1989.
27. Frank, R.G, Salkever, D.S and Mullann, F: Hospital Ownership and the Care of Uninsured and Medicaid Patients: Findings from the National Hospital Discharge Survey 1979-1984. Health Policy, 14, 1990.

28. Shulman, N et al: Financial Cost as an Obstacle to Hypertension Therapy. American Journal of Public Health, 76, 1986.
29. Waddington, C and Enyimayew, K: A Price to Pay: The Impact of User Charges in Ashanti-Akim District, Ghana. International Journal of Health Planning and Management, 4, 1989.
30. Waddington, C and Enyimayew, K: User Charges in Ghana - Raising Money and Deterring Patients. A Study of Ghana's Volta Region. Unpublished MS, 1989.
31. Heller, P: A Model of the Demand for Medical and Health Services in Peninsular Malaysia. Social Science and Medicine, 22, 1986.
32. Yoder, R.A: Are People Willing and Able to Pay for Health Services? Social Science and Medicine, 1989.
33. Bennet, S: The Impact of the Increase in User Fees: A Preliminary Investigation. Lesotho Epidemiological Bulletin, 4, 1989.
34. Birch, S: Health Care Charges: Lessons from the UK. Health Policy, 13, 1989.