

Annex 7

HEALTH FINANCING TECHNICAL BRIEF REVIEWING THE IMPACT OF USER FEES: THE AFRICAN EXPERIENCE¹ (Draft March 2003)

Introduction

This paper reviews user charges as a financing option for health care in terms of its impact on service utilization, quality of care and revenues raised within the context of the overall objectives of the health system.² The study uses evidence from the African experience in implementing charges in an attempt to draw some conclusions about what makes a system of fees 'successful' or otherwise. It will show that effective implementation of fees is subject to conditions that are difficult to satisfy and that fees are at best a used as a co-financing mechanism.

Much of debate on fees at the global policy level has focused on the efficiency and equity aspects of user charges. Proponents in favour of user charges suggest that fees could make the health system more efficient by guiding demand to cost-effective health care at appropriate levels. Further, they argue that the approach could also improve equity as well if revenues raised (or freed up) are allocated to addressing the health needs of the poor³. The opinion on the other side argues that this reallocation is not in fact guaranteed and, in the absence of effective exemption policies or other forms of financial protection, user charges actually price the poor out of the market for health care with potentially dire consequences for their health status.⁴

The essentials of both arguments found a place in the African design of user charge policy - promotion of utilisation of primary health care centres

¹ This draft was prepared by A. Singh, Department of Health Financing and Stewardship, WHO, Geneva, in close collaboration with G. Carrin and W. Savedoff and with comments from numerous WHO colleagues, including P. Hanvoravongchai, P. Davies, K. Kawabata, E. Villar, J. Perrot, C. James, N. Sekhri, and M. Takeuchi.

² These have been stated as Improvement in health status, fairness of financial contribution and responsiveness (WHR, 2000).

³ See for example Griffin, 1988.

⁴ For a recent review see Ahin-Tenkorang, 2001.

(PHCs) and protection of the poor. The emphasis on fee as a financing mechanism was in response to a resource crisis in the health sector and were endorsed as a means to raise additional revenues. It was envisaged that this bridge the resource gap in improving access and provision as well as allow for investments in better quality, especially the availability of drugs, which in turn was expected to promote utilisation of PHCs. Also, implementation was anchored at the community/facility level to facilitate targeting benefits to the poor.

Since their wide-spread introduction under the Bamako Initiative (BI), the user fee experience in Africa has been reviewed extensively with respect to actual versus theoretical and planned outcomes.⁵ Given the specific BI goals, these assessments focus on the revenue, utilisation and quality impact of user charges based on household and/or facility level data and using qualitative and/or quantitative information, though only about a fifth employed used 'before and after' scenarios, control groups or statistical/econometric techniques in their analysis. The findings of these studies are briefly discussed below in Section III. The purpose of this study is to update these reviews relying on quantitative studies that measure utility and quality responses to fees in an attempt to establish robust relationships between determinations of 'successful' or 'unsuccessful' implementation of charges. The large body of more descriptive literature is also used, to support these findings or to establish apparent patterns regarding an 'enabling environment' (particularly policy and institutional issues) that could be areas of further empirical research.

The next section introduces the analytical framework provided by household demand for health care and discusses each of its determinants in detail. The following section on the African experience puts the user fees in a situational context and outlines the specific policy objectives in Africa; and the findings of existing reviews mentioned earlier are presented here as well. The following sub-section turns to evidence compiled by the current review and first presents findings on the utilisation and quality impact of fees using the framework of household demand and then it draws inferences from the descriptive materials on the policy and institutional prerequisite that may contribute to these findings.

⁵ See for example McPake, 1993; Creese and Kutzin, 1995; Nolan and Turbat, 1995; Gilson, 1997.

The Basic Economics of User Fees

As an approach to understanding the basic economics of user charges within the context of the financing function and overall health systems goals, this section discusses how household demand for health care is influenced by fees - if a goal of the health system is to improve health status then demand for care would be a relevant framework in which to discuss policy options to achieve it.

A simple expression of the determinants of consumer demand for care from a particular provider may be stated as:

demand = function (price_{provider}, price_{alternative}, income, quality, other)

i.e. household demand for health care is a function of four main variables: the price of the particular provider; the price of alternatives; household income; and quality of care. These are the four main determinants of demand and are examined separately below. Other factors may also have some influence demand e.g. age, sex, severity of illness, but these have been left out of the current analysis.

Introducing or raising fees for a service increases the price of that care faced by households. In terms of the relationship described above, an increase in price causes household to reduce demand or utilisation of the particular service. This utilisation response to a fee increase may be quantified by the price elasticity of demand which measures the change in demand brought about by a unit change in price. Evidence suggests that price elasticities tend to be negative and less than 1 in absolute value i.e. an increase in fees will cause households to decrease utilisation but less than the proportionate increase in charges - e.g. a 1 per cent increase in prices would bring about a fall in utilisation but of a magnitude less than 1 per cent of current demand. Importantly, this measure may differ between groups - studies have found the price elasticity of demand to be higher among women and children as compared with adult males⁶ - implying that a fee increase may impact the utilisation of certain groups more adversely than others.

How a fee increase by one provider impacts *net* utilisation will depend on the size of the additional charge as well the relative price and price response of alternative providers. If households have various health care options to choose from, a fee increase by one provider may simply redistribute consumers across providers in which case there would be little impact on net

⁶ Gertler and van de Gaag, 1990

utilisation of services. This concept is measured by the cross price elasticity of demand - the change in demand for alternative provider services when the price of the initial provider changes. Studies estimating cross-price elasticities suggest that an increase in price by one provider results in some increase in the utilisation of service of alternative providers i.e. cross-price elasticity of demand is positive. However, if in response to a fee increase by one provider, alternative providers raise their prices as well, the switch from the initial provider may be restricted. Thus the magnitude of a switch from one provider to alternatives - and thus *net* consumer response - depends on the relative price of alternative providers, which in turn, is determined by both the increase by the initial provider and the subsequent response of alternative providers.

Household consumes a variety of commodities, one of the being health care, and distribute their income over all of these expenditures. In the context of the present discussion, higher fees for health services implies that to maintain levels of utilisation of health care, the share of household income allocated to health care must increase, necessitating a reduction in the consumption of other commodities. For poorer households, where health expenditure may already be a significant proportion of consumption expenditure, any additional layouts to health care at the cost of other basic consumption needs may not be viable. Effectively then, price elasticities are higher for the poor than for higher income groups.

The final determinant of household demand for health care examined here is quality. Improvement in the quality of services is predicted to increase utilisation as better quality adds additional value to the commodity - the quality elasticity of demand is positive. Thus, should higher fees be accompanied by quality improvements in health services, the negative utilisation response to an increase in charges may actually be dampened or even outweighed by the positive impact of quality. i.e. the quality elasticity of demand and price elasticity of demand work in opposite directions and the quality effect may cancel out (all or part of) the price effect on utilisation. However, quality has proved difficult to define and quantify. A comprehensive measure would capture both structural attributes, e.g. drug availability, as well as process indicators, e.g. quality of interaction between providers and patients⁷ but due to problems of definition and measurement, most studies use drug availability as a proxy for quality.

⁷ Mariko, 2002.

In summary, the four main determinants of household demand for health care - provider price, price of alternatives, income and quality - offer a useful framework to assess the impact of user charges on utilisation. The model predicts that an increase in provider fees will cause demand for that provider's services to fall. However, the *net* impact on utilisation will be determined not only by the size of the additional fee but also the relative price of alternative providers. Further, this utilisation response to user charges is higher for lower income groups. And finally, the negative impact on utilisation is reduced if higher fees are accompanied by improvements in the quality of service.

Using the framework developed here, the next section considers the evidence from Africa on the impact of user charges on utilisation, quality and revenues.

The African Experience with User Charges

This section examines user fee implementation in Africa vis-à-vis its impact on service utilisation, quality improvements and additional resources raised. Before evaluating the experience, the policy decision to introduce or raise charges is put into a contextual background, importantly, the specific aims in Africa of such a financing choice.

The context of a systems of user fees in Africa

One of the first attempts at using charges as a financing mechanisms in the health sector was the Pikine Project in Senegal in 1975⁸. In response to severely limited government funding in a poorly served and rapidly growing urban centre, in 1975, communities organized and financed their own primary health care services. Health committees at the local level were responsible for over-seeing a system of fee-for-services, with variations across types of service as well between adults and child charges introduced at PHCs. Revenues raised through fees were apportioned across recurrent cost categories, the distribution rules established by an association for health promotion formed by health committees and legitimated by the government. Between 1980 and 1987, 77% of total PHC costs came from community contributions and as much as 85% of this revenue was pre-assigned for the

⁸ Carrin, 1992.

purchase of drugs, making facilities quite self-reliant in terms of this essential input. There is little accurate information on the Project's impact on utilisation though it does not appear to have increased substantially and, particularly, fees may have impacted the poor adversely. Two factors were noted here for more attention: setting a level of fee needed to take into account non-medical costs, particularly travel time costs and fee adjustments needed to follow set guidelines avoid over-adjustment due to ad hoc procedures. Overall, Pikine Project was considered an 'encouraging experience' in terms of self-financing primary health care.

The central features of the Pikine Project formed the blue-print of health sector reform in Africa in the 1980s be it through a general approach or as part of the Bamako Initiative. The driving force was, again, the lack of resources to improve a poorly functioning primary care system. User charge was the policy choice to increase revenue and its use towards improving the availability of drugs the key to increasing utilisation of PHCs. On the managerial/administrative aspect, the Bamako Initiative model emphasized that revenue be raised and controlled through community based activities which were national in scope. Community participation in management was seen as the critical mechanism for ensuring that resources were used in ways which address the persistent quality weaknesses of primary care (especially drug availability), that exemption policies to protect the poor were implemented effectively and that there was accountability to the users of health care.

All countries in Africa have some form of user charges, enforced through either national polices, the Bamako Initiatives or pilot projects. As Table 2 (a,b,c) indicates, the stated objectives of a system of fees are almost uniformly to raise revenues to improve utilisation and quality of primary health care centres (PHC), particularly the supply of drugs.⁹

Table 2 (a,b,c) also illustrates the different structure of fees and the arrangements for revenue sharing across countries. In keeping with the objective of improved availability of drugs, almost all countries have introduced fees for drugs for both outpatient and inpatient care. However, other charges vary from registration, per visit, and treatment fees or some combination of these. While the expressed aim is to promote PHCs, only a

⁹ Raising additional revenues for ensuring drug supplies was in fact a specific aim of the Bamako Initiative and some countries earmarked revenues raised for a drug revolving fund.

third of the countries implement a system of fee waiver for referrals or fee variations between levels of care that would encourage the use of primary facilities. Also, the community focus is diluted as well - only half the countries having a policy that allows at least a proportion of revenues raised to be retained at the facility level with fee sharing arrangements ranging from full retention at community/health centres to 100 per cent remitted to the Ministry of health. A related financing issue is 'budgetary protection' which safeguards current health budgets from dollar-for-dollar reductions against additional revenues raised through user charges. There is very little evidence on this – either on policy stance on the issue or if budgets were actually reduced once revenues were raised through the fee option – though some countries did secure budgets against such.¹⁰

Evidence on the impact of fees in Africa

Quantitative evidence

Previous reviews¹¹ indicate that predicted levels of resource mobilisation have not been realised and that, in fact, revenues raised from implementing user fees fell well short of estimates, being on average about 7% of non-salary costs rather than the anticipated 15%¹². This has limited both the envisaged increase in utilisation, through an improvement in the availability of drugs, as well as reallocation of resources, through exemptions schemes to protect the poor. The reviews emphasise the importance of establishing a supporting institutional infrastructure has a key first step to ensuring the feasibility of a system of fees: policy directives for fee structures, revenue collection, retention and expenditures; exemption guidelines; and motivated staff with the capacity to enforce these rules effectively with the community.

This review examines the evidence on user charges using the framework outlined in Section I. To reiterate, household for health care may be expressed by the following relationship:

$$\text{demand} = \text{function} (\text{price}_{\text{provider}}, \text{price}_{\text{alternative}}, \text{income}, \text{quality}, \text{other})$$

Table 1 tabulates evidence on elasticities of demand.

¹⁰ e.g. Kenya.

¹¹ Prominent reviews include McPake, 1993; Creese and Kutzin, 1995; Nolan and Turbat, 1995; Gilson, 1997.

¹² As predicted by the World Bank when advocating greater use of fees.

Price provider

Evidence on price elasticities of demand indicates a wide range for overall elasticities, from -0.10 to -0.79. The evidence on demand response by level of care is mixed: in Ghana hospital care is more price elastic than lower levels of care - the measure for inpatient care is in fact greater than 1 in absolute value (-1.82) indicating that fees would cause a more than proportionate fall in utilisation of inpatient hospital care; evidence from Cote d'Ivoire on the other hand indicates a higher utilisation response to an increase in charges at health clinics vis-à-vis hospitals. Further, in a simulation exercise for rural Cote d'Ivoire, it was found that user fees seemed to have a greater negative effect on the utilisation of children than that of adults. Thus while there is evidence that an increase in fee will cause utilisation to fall, more so among children than adults, the size of the overall decrease varies across levels of care and is also very different across countries.

Price alternative

There is very little information on *net* impact on utilisation via an change in user fee. While not calculating cross-price elasticities between specific providers but, rather, substitution between groups of providers, a study in rural Cote d'Ivoire found that households faced with an increase in the price of one provider would more likely turn to other providers that to opt for self-care. For Kenya, measures of price elasticity are available separately for different types of providers with mission and private provides have elasticities much higher than |1| - -1.57 and -1.94 respectively as compared with -0.10 for government providers. Clearly then establishing the 'switch' between providers is crucial to estimating the *net* utilisation response of an increase in public sector fees.

Income

Studies on price elasticities by income group indicate that this measure can be substantially higher for the poor: -1.44 versus -1.12 in Burkina Faso. Evidence from the Cote d'Ivoire suggests this disparity holds between levels of care as well - both groups have higher elasticities for health clinics versus hospital services but, for each level of care, elasticities for the poor are higher than for the rich. This finding highlights the importance of including a strategy to

safeguard the poor through exemptions for example, as part of a user fee policy.

Quality

As discussed earlier, quality is difficult to define and measure and hence there is limited evidence its impact on utilisation based on a precise measure. Three studies have modelled quality along with the other determinants of demand using with different definitions: a study for Nigeria¹³ used three provider quality variables based on facility surveys - expenditure per person in population served, proportion of times drugs were available and evaluation of physical condition of facility - and found that while price effect was important but relatively small, public providers could actually increase prices by 87% to private facility levels if they matched their quality as well without an adverse impact on utilisation. The second study in Niger¹⁴ used drug availability as a proxy for quality and suggests that the quality effect of a fee may outweigh the price effect on utilisation, implying quality improvements are an important in ensuring long-term success of cost-sharing policy. The third econometric study emphasises the importance of accounting for both structural - e.g. drugs - as well as process attributes of quality - e.g. 'good' consultations. Its findings for Mali¹⁵ suggests that both these attributes of quality impact utilisation and that omitting the process quality variables from the demand model produces a bias not only in the estimated coefficient of the price variable but also in the estimated coefficient of some structural attributes of quality.

A comprehensive before and after study with controls in Cameroon¹⁶ suggests that the probability of using the health centre increased significantly after the introduction of fees - travel time and costs involved in seeking alternative sources of care were high and with the improved availability of drugs, the fee charged for public provision represented an effective reduction in the price of care and thus utilisation rose. Further, this impact was found to be most true for the lowest quintile - care sought increased at a rate proportionately higher than the rest of the population. Quality, even using one of its component namely drug availability, clearly has a positive impact on

¹³ Akin et al, 1995

¹⁴ Chawla and Elis, 2000

¹⁵ Mariko, 2002

¹⁶ Litvack and Bodart, 1993.

utilisation and may even outweigh the negative effect of a fee increase. However, in estimating its impact in its entirety, structural attributes would need to be combined with process ones and the issue of definition and measurement of these still needs to be tackled satisfactorily.

Notes:

The 'primary' studies used as evidence above also make two other relevant points:

1. The importance of including all associated cost of accessing care in total costs and these may be context specific - in Uganda for example there are significant 'unofficial costs' which must be taken into account while assessing the impact of increased costs.¹⁷
2. In modelling the impact of quality along with the other determinants of demand the study in Niger observed an increase in the probability of utilisation in districts with indirect payment schemes.

Summary points

- *price_{provider}*
 - an increase in fee causes utilisation to fall though the size of this response has a wide range across countries and between levels of care.
 - before setting levels of fee, is important to account for *all* costs, including travel and unofficial costs.
- *price_{alternative}*
 - to estimate the net utilisation response of an increase in fee, the relative price of alternative providers needs to be taken into account. The net utilisation impact of user charges may in fact be lower than that predicted by looking at the fee-raising provider alone.
- *income*
 - price elasticities of demand for health care higher for the poorer emphasising the need for protection of lower income groups.

¹⁷ McPake, 1993

➤ *quality*

- in defining and quantifying quality both structural and process attributes need to be included.
- quality improvements positively impact utilisation and this can outweigh the negative impact of an accompanying price increase, even among the poor.

The evidence on the impact of user charges on utilisation is mixed across countries with some countries experiences large falls in demand while the change in others has been more modest. Also, the experience between levels of care has been similarly varied - in some cases lower levels of care were more effected in terms of a utilisation response to fee increases while in others, the impact on demand for hospital care was greater. There is little information on the response of alternative providers to draw any conclusions about the *net* utilisation impact of a price increase by public providers. However, two conclusions may be drawn from the available evidence: first, that the poor are more susceptible to an increase in fees than the better off and second, quality improvements that accompany a price increase may balance out the drop in utilisation, even among the poor.

Other evidence

There is substantial literature, relatively more descriptive in nature, that suggests factors other than those modelled above may be very relevant to the outcome of a system of user charges - specifically, policy and institutional issues - especially as some of these were stated goals of the BI. Also, this exercise may be used to point the way to research areas that require further study in understanding fees better. Accordingly, the more descriptive data available is used to draw patterns that emerge from outcomes of increased/decreased utilisation in response to user charges vis-à-vis strategies used to implement them - fee structures and related policies, community participation and exemption schemes. Given the difficulties in measuring quality, perceptions on quality improvement also included here. Particular country examples are used as illustrations on any additional observations.

Studies from 22 countries have been consolidated to provide as complete a picture possible on their fee experience. Tables 2 and 3 (a,b,c) distinguishes these by utilisation outcome and an almost even mix confirms the varied evidence on the strength of the price elasticities discussed above.

Negative utilisation response to user fees

Seven countries reported a fall in utilisation after the introduction of user charges. Only one of these showed an improvement in quality ratings. All but one had exemption policies in place to protect utilisation levels of the poor against the negative impact of user charges, supported by community/local participation in identifying beneficiaries.

The fee structure in these countries where utilisation fell relied on fees for drugs combined with variations of registration, per visit and treatment charges at outpatient facilities and offered waivers for referral and/or variations across levels. For inpatient care, the reliance was more on fees per day with some countries also implementing drug charges. Waivers/variations were less common for this type of care. The retention policy for this set of countries was mixed - some remitted 100% to the MoH while others retained substantial proportions at the facility/local level. Overall revenues raised were limited to less than 5% of recurrent costs in most cases.

Measures of price elasticities of demand for Ghana and Kenya presented earlier were quite low but both countries appear to record a clear fall in utilisation with an increase in user fees and it may be useful to examine the specifics of each country. One study in Ghana¹⁸ found a 'sustainable inequity' after the introduction of fees - fee setting and collection practices have been decentralised but as a result have been difficult to monitor. Local staff have been active in setting, collecting and using fees to purchase essential inputs (and flexibility to this has in fact been identified as the crucial for better health service delivery by local medical administrators - 2/3 to 4/5 of non-salary operating costs have been recovered in the region investigated and for those able to pay for care, quality has improved. However, official exemptions have been largely non-functional leaving the poor out of the public health care system - less than 1 in 1000 surveyed was granted exemption when as estimated 15-30% lived in poverty¹⁹. Kenya²⁰ introduced phased (top-down) out-patient treatment fee after an initial period of implementation and subsequent suspension of registration fee due to implementation problems - patient dissatisfaction with quality in spite of higher prices; procedures for

¹⁸ Agyepong, 1999

¹⁹ Nyonator, 1999

²⁰ Collin, 1996; McPake, 1993; Mgubua, 1995; Mwabu, 1995

waiver were poorly understood; overall revenue collection was low due to unclear claim procedures for those insured and, for cash collections, managers could not/did not control or monitor what was being waived, exempted or collected: overall, the system suffered from poor information - on part of both consumers and providers. This registration fee caused utilisation to fall by about 1/3 or more at all levels, being particularly high at the district level (where alternative care was available). The subsequent treatment fee caused a smaller decrease (6%) - the difference from the previous regime being a fee for tangible services, broader exemptions, comparatively high prices for all commodities and wider acceptance of fees. Also, community pharmacies eased the financial burden of drug payments. Perceptions of quality changes differed between provincial and district hospitals - as mentioned the former had smaller falls in utilisation, greater revenue generation and better cost sharing management systems (though the main components of quality required little financial investment - cleanliness, staff attitude)

Positive response to user fees

Utilisation increased after the introduction of fees in eight countries. Seven of these had marked improvements in the availability of drugs. Only half had exemption policies, all with community/local participation.

The main type of fee imposed was for drugs in these countries combined with charges for treatment in some countries - for both out- and in- patient care. Some, though lesser, reliance was placed on registration charges and only one country had an explicit policy of waivers/variation of fees. Evidence available for six countries on retention indicates the bulk of revenues raised were retained at facility level (at least 75%). Revenue collection figures are available for only three countries, in all cases substantial proportions - upto 100% of recurrent costs were recovered.

There are some relevant country illustration here as well. In Cameroon²¹ the success of provincial health funds, built on fees for drugs (and services) and managed by the community. By its third year they raised over 60% of recurrent non-salary costs of public health services and were projected to cover the entire cost by the end of the fourth year. In Mauritania²² the

²¹ Sauberborn, 1995

²² Audibert, 2000

introduction of cost recovery at the first level of care resulted in improvements in both structural and process aspect of quality - drug availability improved and so did staff motivation as indicated by an increase in preventive activities. However, given the success of pilot programmes of user fees, there was a move to substitute the regular health budget with these additional collections and reduce government contributions to the sector.

Mixed utilisation response to user fees

Seven countries reported mixed utilisation responses to user and utilisation in two settled at previous levels after an initial increase/fall. All reported some improvement in the availability of drugs. Four countries protected the poor with explicit exemption policies with participation from the community/local staff in identifying beneficiaries. The exemption and better revenue observations included the two countries that maintained utilisation levels.

The fee structure in these countries varies between the options of registration, per visit and treatment charges with the main focus on fees for drugs in both out- and inpatient facilities and mixed policies on waivers/exceptions. Most countries had a retention policy that allowed revenues raised to be retained at the facility/local level. Of the two countries that experienced an initial decrease/increase in utilisation before previous levels were maintained, one implemented per day charges for in-patient care, else the reliance was on payment for drugs and registration (or per episode)/treatment fees. Also, both countries had provisions for revenue retention at the facility levels or expenditures were earmarked for drugs. Revenue collections were mixed as well, three countries recovered substantial proportions of recurrent but the rest were limited to less than 15%.

One of the few studies that examines the health outcome of user fees reports on the impact of charging for insecticide for treatments of nets in Gambia.²³ It found that the overall mortality and prevalence of malaria in children increase with an increase in cost of impregnation.

A comparative survey of NGO and public facilities in Uganda²⁴ found that the latter were able to raise up to 40% of recurrent costs from user fee

²³ Chaun, 1999

²⁴ Okello, 1998

while collection in the latter amounted to at most 7%. The recovery system in public facilities was not standardised, both with respect to collection as well as expenditures of revenues raised and therefore difficult to implement. Notably, also, staff at NGO facilities were better trained and better paid (further, some received in-kind rewards for performance) which, combined with better availability of drugs at NGO facilities, meant higher utilisation of these services particularly at lower levels of care (at higher levels of care public hospitals were favoured). Uganda has in fact the most reported informal charges in the health system and a recent study found that informal activities act as incentives, impacting both quality and utilisation of public health workers - informal charges are associated with better performance regarding hours worked and utilisation rates; drug leakage was associated with poor performance with respect to both these²⁵.

A large study in Zambia²⁶ for a 5 year period found a dramatic decrease of 1/3 in general attendance for both hospitals and PHCs over a two-year period followed by continued though slower decrease. Results also showed an increase and shift to health centres of specific care - vaccinations, general admissions and deliveries - though the intended overall shift in outpatient care from hospitals to PHCs did not come about. However, a study of referral pattern in Lusaka found that national referral hospitals may indeed be functioning as PHC but as additional *not* substitute facilities. Also, any bypassing lower levels of care has more to do with drug availability than a perception of better overall (technical) quality of care. Importantly, there remains substantial unmet need for health care and equipping health centres to meet this was more urgent than an attempt to decongest hospital outpatients through price (dis)incentives²⁷. The importance of improving PHCs is emphasized by another finding that indicates that inequalities in access costs, especially between rural and urban areas - what seems to contribute to inequality in the cost of access is not the user fee per se but the travel cost and cost of time spent in reaching the health facility²⁸.

²⁵ McPake, 1999

²⁶ Blas 2001

²⁷ Atkinson, 1999

²⁸ Hjortsberg, 2002

Summary points

- Health outcomes
 - may be negatively impacted by an increase in user charges
- The context
 - influences consumer response to user charges: if some form of fee already existed, if the increase in price of health care was in line with prices of other commodities or if fees (and quality changes) meant a relative fall in the price of public services vis a vis accessing alternatives.
- Revenues raised
 - at best a modest portion of recurrent (non-salary) costs
 - this proportion is highest when fees are aimed at specific cost items e.g. drugs.
- Quality
 - important determinant of demand for care, which may, even without other factors maintain or even increase utilisation when user fees are introduced.
- Fee structure and related policies
 - the structure of fees needs to be such that incorporates a clear link between charges and how it benefits the consumer i.e. payment for drugs or treatment rather than fees per day/per visit.
 - revenue retention, at each level of care as well as within the health sector itself, may provide an important incentive to facility staff for both collection as well as appropriate use to improve quality.
 - reducing the health budget in response to additional revenues raised through user fees recreates financial stress on the system.
 - incentives to consumers in form of waivers/variation in fees according to levels have limited value where 'inappropriate use' is not an issue.
 - on the provision side, a structure of fees that specifies its purpose, e.g. charges for drugs gives the necessary instructions for spending revenues raised, else, it is important that the policy set out expenditure rules for facility staff.

- Exemption
 - exemption polices need to include guidelines to identify beneficiaries that are simple to implement by the community and/or facility staff.
- Community financing and management of resources
 - may have some potential for positively impacting systems performance.

Conclusion

This review examined the African experience in implementing user fees as a financing alternative in terms of its impact on utilisation of services, quality of care and additional revenues raised. Given the limited robust literature available, any conclusions drawn can be tentative at best.

In keeping with the predictions of the analytical framework used, household demand for health care fell with an increase in charges though this measure was very varied in size across countries as well as between levels of care. However, the poor were clearly more vulnerable to a price increase than the relatively better-off though improvements in quality accompanying a fees seemed to reverse this trend, even for lower income groups.

The study also used the more descriptive information to ascertain an 'enabling environment' with respect to policy and institution issues for better implementation of fees. This literature indicates that overall revenue collection from user fees has been limited to a proportion of recurrent (non-salary) costs. It reiterates the importance of quality improvement in maintaining or increasing utilisation levels and suggests that both a clear link between increased contributions and better quality (e.g. drug availability) in the fee structure as well promoting staff motivation through revenue retention and expenditure at the facility level may contribute toward improving quality. While there is evidence to indicate that a negative utilisation response to fees may be reversed through quality improvements even among the poor, viable exemption polices need to be in place to ensure their protection. Also, community participation in administration/management and financing may have some potential for positively impacting systems performance. This, along with forms of prepayment noted earlier to have a positive effect on utilisation,

are being explored in other papers in this series. The other policy and institutional conditions discussed here all need further study.

Table 1. Estimates of price elasticity of demand for health care

Country	Service type	Data type	Overall	Low income	High income	Source
Burkina Faso	Public provider	All ages	-0.79	-1.44	-0.12	Sauberborn et al (1994)
		Age 0-1	-3.64			
		Age 1-14	-1.73			
		Age 15+	-0.27			
Cote d'Ivoire	Health clinic			-0.61	-0.38	Gertler and van der Gaag (1990)
	Hospital outpatient			-0.47	-0.29	
Cote d'Ivoire	Health clinic		-0.37			Dow (1996)
	Hospital outpatient		-0.15			
Ethiopia			(-)0.5 - (-)0.50			Jimenez (1985)
Ghana	Hospital inpatient		-1.82			Lavy and Quigley (1993)
	Hospital outpatient		-0.25			
	Dispensary		-0.34			
	Pharmacy		-0.20			
	Health clinic		-0.22			
Kenya	Government provider		-0.10			Mwabu et al (1993)
	Mission provider		-1.57			
	Private provider		-1.94			
Sudan			-0.37			Jimenez (1986)
Swaziland			-0.32			Yoder (1989)

Table 2a. Objectives, structure and retention plans of user charge systems (Countries where utilization fell)

	Country	Objectives	Fee Structure										Retention	
			Outpatient					Inpatient						
			Registration	Per visit	Care	Drugs	Waiver/ Variation	Registration	Per day	Care	Drugs	Waiver/ Variation		
1	Burkina Faso	Improve PHC, ensure drug supplies			Yes	Yes	Yes			Yes	Yes	Yes	Yes	40% at hospitals
2	Ghana	Raise revenue, improve services, ensure drug supplies		Yes		Yes	Yes							Distributed between district, MoH and treasury
3	Kenya	Raise revenue to improve services, promote appropriate use			Yes	Yes	Yes		Yes				No	75% at facility and 25% at district
4	Lesotho	Raise revenue, promote appropriate use	Yes			Yes	Yes	Yes	Yes	Yes	Yes	No	100% to MoH	
5	Mozambique	Raise revenue, improve services, ensure drug supplies	Yes			Yes	No		Yes		Yes	Yes	Not known	
6	Swaziland	Equalize public and NGO fees		Yes			No		Yes			No	Revenue to MoH/Treasury	
7	Zimbabwe	Raise revenue, strengthen position of MoH, improve equity		Yes		Yes	Yes		Yes	Yes	Yes	Yes	Full retention by nation hospital; all other revenue remitted to Treasury	

**Table 2b. Objectives, structure and retention plans of user charge systems
(Countries where utilization rose)**

	Country	Objectives	Fee Structure										Retention		
			Outpatient					Inpatient							
			Registration	Per visit	Care	Drugs	Variation	Registration	Per day	Care	Drugs	Waiver/ Variation			
8	Benin	Improve PHC	Yes		Yes	Yes	Yes					Yes	Yes	Yes	75% at facility, 25%
9	Burundi	Not stated	Yes		Yes	Yes			Yes			Yes	Yes		100% in community
10	Cameeron	Improve PHC, ensure drug supplies			Yes	Yes						Yes	Yes		100% at health centres; 50% at hospitals
11	Guinea	Improve PHC, ensure drug supplies	Yes			Yes			Varies					100% at facility	
12	Mauritania	Improve PHC, ensure drug supplies				Yes							Yes		
13	Senegal	Improve PHC, ensure drug supplies			Yes				Yes						
14	Sierra Leone	Improve PHC, ensure drug supplies				Yes	No					Yes	No		Most goes to DRF, rest retained at facility
15	Togo	Ensure drug supplies				Yes						Yes	Yes		100% at facility

**Table 2c. Objectives, structure and retention plans of user charge systems
(Countries where the utilization response was mixed)**

	Country	Objectives	Fee Structure										Retention	
			Outpatient					Inpatient						
			Registration	Per visit	Care	Drugs	Variation	Registration	Per day	Care	Drugs	Variation		
16	Gambia	Ensure drug supplies	Yes			Yes	No		Yes		Yes	No		Earmarked at MoH or DRF
17	Guinea Bissau	Improve services, ensure drug supply		Yes		Yes	Yes			Yes	Yes	Yes		National goes to MoH; BI retained for community, facility and region
18	Mali	Improve PHC, ensure drug supplies			Yes	Yes	Yes			Yes	Yes			National policy
19	Nigeria	Improve PHC, ensure drug supplies	Varies				No	Varies				No	Varies from facility to state level	
20	Uganda	Improve community services	Varies				No	No official fee					Retained at community level	
21	Zaire	Improve PHC	Yes			Yes			Yes	Yes				100% at health zones
22	Zambia	Raise revenue, improve community services	Yes				No	No information					Full retention of project revenue at community level	

Table 3a. Countries where utilization fell after introduction of user charges

	Country	Revenue raised	Quality	Exemption	Community/ local participation
1	Burkina Faso	Low proportion of facility costs	No improvement reported	No	
2	Ghana	5% of recurrent expenditure	Drug shortages persisted	Yes	Facility staff
3	Kenya	Upto 7% of recurrent costs at provincial hospitals; lower (1%) at PHC	Improved rating provincial hospitals	Yes	Both
4	Lesotho	Upto 9% of recurrent costs	No clear pattern	Yes	Both
5	Mozambique	Below target	Not clear	Yes	
6	Swaziland	Less than 5% of recurrent cost	No obvious change in quality	Yes	Facility staff
7	Zimbabwe	Less than 5% of recurrent cost	No evidence	Yes	Facility staff

Table 3b. Countries where utilization rose after introduction of user charges

	Country	Revenue raised	Quality	Exemption	Community/ Local participation
1	Benin	Upto 40% of costs in BI districts	Improved drug availability in PHC	Yes	Facility staff
2	Burundi	Not known	Improved drug availability in PHC	Yes	Community
3	Cameeron	Not known	Improved drug availability in PHC	No	
4	Guinea	Upto 100% of non-salary costs in some projects	Improved public perception	No	
5	Mauritania		Improved drug availability in PHC	Yes	Both
6	Senegal		No evidence	Yes	Facility staff
7	Sierra Leone	Varies, some district covering most of drugs cost	Improved drugs availability	No	Community
8	Togo	Not known	Improved drug availability in pilot PHC	No	

Table 3c. Countries with mixed utilization response to introduction of user charges

	Country	Revenue raised	Quality	Exemption	Community/ local participation
1	Gambia	Upto 40% of drug costs	Drugs availability improved	Yes	Facility staff
2	Guinea Bissau	Minimal (less than 1% of recurrent); bit higher in BI pilots	Improvement in drugs supply in some facilities	No	Local management committee
3	Mali	100% of drug costs; 30% of other costs at pilot PHCs (less than 2% of recurrent MoH costs)	Improved drug availability	Yes	Health committee
4	Nigeria	Low	Improvement in drugs supply in	No	Community/facility staff
5	Uganda	Low	Improvements varied	No	Community
6	Zaire	Varies across zones - upto 80% of operating costs	Facilities improved	Yes	Community/facility staff
7	Zambia	Limited revenue nationally, community projects raising 10-15% of costs	Improvements varied in community projects	Yes	

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