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## **Title**

Mobilizing Resources for Health:  
The Case for User Fees Revisited

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## **Introduction**

In the late 80s and early 90s many developing countries, mainly in Africa, introduced charges for public health services in an attempt to use private funds, either to supplement or substitute the government budgetary resources for the health sector. In many cases, the fees were also to assist the process of structural adjustment. Preceding and during this period, policies that sought to increase private contributions for financing of health services provided by the state were pursued by the international development community and some national governments. The Alma-Ata declaration<sup>1</sup> in 1978 required that Primary Health Care (PHC) involve community participation in financing. In 1987, the World Bank strategy as outlined in the “Agenda for Reform”<sup>2</sup> called for increased private sector provision of health care, user charges, and health insurance; and the Bamako Initiative<sup>3 4 5</sup>, announced by the African health ministers in 1988, depends on community financing of recurrent costs to improve accessibility and quality of primary health services.

Although of the three examples cited above, only the World Bank explicitly recommended user fees, many of the community-based financing strategies originating from the other two policy initiatives were based on the payment of out-of-pocket fee-for-service at the point of use. Two broad categories of user fee practices emerged: those associated with sector reforms supported by international development institutions and intended to improve efficiency and equity in health systems, and secondly those implemented locally, at regional districts or health facility levels, as part of “Bamako initiative (BI) type” schemes<sup>6</sup>. A distinct feature of the fee category implemented locally is community control of the use of the funds generated at the primary level. In practice, most countries in Africa attempted to implement a mix of the two approaches.

Several authors have illustrated that in the period following adoptions of these policies, a shift occurred internationally from an initial concern with criteria for selecting and evaluating national health financing strategies, to a narrower focus on

cost recovery by government providers in the context of user fees (out-of-pocket payment)<sup>7</sup>.

In recent years, several NGOs and civic societies concerned about access problems inherent in user fees have campaigned against institutions such as the World Bank and the IMF approving projects in the social sector that include user fees<sup>8</sup>. The campaigns have met with strong opposition, in part, because analytical work originating from the World Bank in particular has maintained that the issue is no longer whether user fees should be implemented, but how to implement them<sup>9,10</sup>. The basis of this assertion has been the conviction that user fees provide the only viable means to achieve sustainability, and that if the theoretical benefits have not been realized, it has been due to implementation inadequacies in these countries<sup>11</sup>.

More than a decade has passed since the introduction of user fees and yet most countries have not achieved the theorized benefits from this adjunct to their health financing strategies. It is therefore imperative that international and national policy makers adopt alternative sources and mechanisms to finance the health care of poor populations. In the short term, increased development assistance for health from donor countries, together with increased budget allocations for health interventions by the governments of developing countries, appears to be the only viable option. In the long term, strategies based on health insurance will be needed. From the policy analysis perspective, the past and current failure of user fee schemes to meet the expectations of its proponents suggests that the theoretical analysis predicting benefits requires re-examination.

The first part of this paper presents such a re-examination of the initial body of work on the demand for health care that was used to articulate the theoretical merits of user fees. It argues, among other things, the need to distinguish the case for private contributions to health care *per se*, from the case for user fees as a form of these private contributions. It further argues that the evidence suggests that other forms of private contributions, such as community health insurance, have far greater potential benefits. The second part of the paper then presents the empirical evidence to date of the impact of user fees in

health care in developing countries. The evidence illustrates the trade-off that has been made in these countries between revenue generation and equity in access to health care – a trade-off that could be avoided if other means of revenue generation are used.

### **Theoretical considerations on user fees and demand for health care**

It is important to define what is meant by user fees in order to distinguish them from other forms of private contributions towards health. User fees refer to the payment of out-of-pocket charges *at the time of use* of health care. In this sense, they go beyond concretizing the idea that it is desirable for consumers, regardless of their income, to make contributions to the financing of public health care in addition to those they make through taxes. It prescribes the timing of the contribution relative to the time of needing and receiving health care. This specification of timing evokes market mechanisms that profoundly influence the distribution of health care among potential consumers.

User fee policy recommendations in the 70s were underpinned by the hypothesis that price inelasticity of demand for health care made it feasible to obtain additional revenue through out-of-pocket fees. However, early models that were used primarily to explore price and income elasticities ignored the fact that the basic trade-off is between “health”, a consumption *and* investment good, and other commodities<sup>12</sup>. Instead, these models were derived from a traditional utility maximization process in which purchases of health care are traded against those of a composite good under a budget constraint. These studies determined point elasticity of amalgamated goods ranging from acute surgical care to antenatal care for populations of different incomes. As many of the studies were implicit demand studies rather than ‘willingness to pay’ (WTP) studies, they relied on the sample of the population that had expressed demand through purchase or payment fees and neglected those consumers whose effective demands were initially zero and remained so for all the price ranges investigated. Conceptualizing that some health care may be considered ‘necessary’ for survival (by defining necessary and discretionary care as two separate goods) provides important price effect predictions on the demand for health care and welfare. Where ‘necessary’

care accounts for a relatively large proportion of total health care services, although increases in health care prices may not reduce the total care demanded, the price increases will have an income-depressing effect, reducing the consumption of other goods through the diversion of resources<sup>13</sup>.

Given the potential welfare losses to low-income consumers resulting from user fees and the associated reductions in consumption of other goods, the goal of policy debates at this period might have been to establish whether it is indeed efficient to distribute any type of health care employing mechanisms that relied on user fees. However, for almost two decades, the debate was centered on implementation problems that were presumed to prevent the realization of illusive theoretical benefits. Critical analysis to ascertain that theory does in fact predict net benefits to individuals or society from user fees for health care has ceased to be central to the user fee debate.

In general, economic theory on allocative efficiency provides support for the use of the market transactions for goods that are 'private' in nature, which usually implies the absence of key characteristics that might lead to market failure. As highlighted by de Ferranti<sup>14</sup>, these characteristics are (a) non-rivalry in consumption, (b) non-excludability, and (c) a high degree of externality. Thus, from among the different types of health care, the potential candidates for user fee-based market transactions are certain forms of curative health care as opposed to preventive health care. However, different positions arise in establishing the nature of curative care in developing countries. One is that the externalities arising from curative care are low and costs of fee collection could be kept low and therefore it is feasible to implement user fees as a means of increasing the available resources for health care, and increasing efficiency and equity<sup>15</sup>. The opposite position is that such an assessment understates the level of external benefits associated with curative care, in particular when the spread of infections is curtailed and productivity losses are avoided through early treatment<sup>16</sup>. Establishing the validity of categorizing any or some form of curative care as a private good without significant externalities is therefore critical to

the debate. This is particularly because theory upholds allocating goods associated with substantive externalities through either (1) private market-based provision together with regulation and/or subsidies, or (2) non-market-based public provision and both minimizing the role of price signals.

This paper, like others in the literature, takes the position that curative care is associated with significant positive externalities and examines the possible efficiency gains from user fees from this premise<sup>17,18</sup>. In general, externalities, positive or negative, arise when the consumption of a good by one economic agent has an effect on the welfare of another. Their presence leads to a divergence in the social valuation of the good and private demand. Incorporating externalities into the supply/demand analysis introduces the ‘social demand’ curve that lies above the private one and allows theoretical predictions of the impact of price and subsidies on the efficiency of health care allocation (see Appendix).

Allocating goods efficiently in the presence of positive externalities requires a solution whereby the utilization is optimal at the point where marginal cost of delivery equals the social marginal valuation – the sum of private and societal evaluations. In the absence of user fees, the cost faced by consumers is access cost (in terms of time spent or income foregone). If these private access costs faced by the consumer are greater than the price that leads to optimal levels of utilization, then an incentive payment (as opposed to a fee) is required to raise welfare and promote efficiency. It is only when these private costs are *lower* than the optimal price, that a user fee, by discouraging utilization, *could* be efficient leading to welfare gains.

Proponents of user fees argue that in situations of free public provision of health care, where financing is also largely public, it is likely that the latter case prevails and there is ‘excessive’ use of public facilities arising out of moral hazard. Therefore user fees, which usually represent a small fraction of the true cost of production, are justified in order to prevent this excess use (inappropriately high consumption). In reality, however, poor consumers in developing countries currently most likely face

significantly higher prices (access costs) than those that will lead to optimal consumption of health care to enhance the global utility function. The argument that time costs are involved in the consumption of health care were incorporated into early utility-maximizing models for health care demand<sup>19</sup>. In these models the total cost per unit of health care was therefore defined as the sum of the monetary cost and the opportunity cost of time. Consequently, such models predict increasing sensitivity of demand to time costs as cash price approaches zero. Where cost of travel, waiting, and income loss is high as in the case of most low-income countries, it can be argued that most or all excess utilization will already have been eliminated<sup>20</sup>. User fees in this circumstance would have the effect of increasing inefficiency.

It is also argued that in a situation where the government is faced with limited resources from tax revenues (as is the case in most developing countries), supply will be constrained without cost recovery and a significant level of excess demand will prevail. In this circumstance, a user fee that relaxes the government's budget constraint would allow a higher level of provision of services, reducing the excess demand. But again, the question is whether this leads to welfare gain or loss. Given that distributional issues are included in the utility function of society and the greater price elasticity of demand of low-income consumers, the outcome would undoubtedly be a welfare loss (the increased supply will be purchased by the wealthier individuals). Although 'cost recovery' is the solution to health sector budget constraints, when user fees are used to achieve this objective it leads to welfare losses and inefficiency.

More recently, such efficiency arguments in favor of user fees have focused on the need to provide the correct price signals to encourage the appropriate use of the 'referral' system and reduce the perceived excessive use of the tertiary system, particularly by the higher income groups in developing countries. An evaluation is being made that these patients are using the wrong kind of health care for their needs (the assumption is that unit costs of tertiary facilities are higher than in primary facilities and that minor illnesses could equally well be treated in a primary facility).

This ignores the fact that patients make their decisions because they perceive health care offered at the primary levels to be of poorer quality. Furthermore, as we have noted above, the impact of user fees is greater on the poor who already face relatively higher access costs (most tertiary facilities are in urban areas and the poor live in rural or peri-urban areas) and are therefore not the main cause of moral hazard. Clearly, the impact of user fees on the utilization of tertiary facilities will be disproportionately and inappropriately greater on the poor patients. The conclusion is therefore that introduction of user fees for ‘demand reduction’ is justified only when there is clear evidence of *unjustified* over-utilization (true moral hazard) of the specific intervention (on account of pre-payment or free provision).

Finally, *even if* we accepted that ‘private-good cum moral-hazard’ efficiency arguments were sufficient to justify user fees at least for some types of curative health care, it would *still* not be the most efficient strategy since it ignores the uncertainty – both in timing and quantity required in future – which we know to be associated with health care consumption. In developed countries, the market and policy response to such uncertainty has been insurance, and in developing countries, the social response has been solidarity arrangements. These societies appear to accept that “out-of-pocket payments are usually the most regressive way to pay for health, and the way that most exposes people to catastrophic financial risks”<sup>21</sup>.

User fees, in the absence of insurance options, place an impossible financial burden on households in low-income countries. In rural areas in particular, balancing households’ expenditures on health against that for food, education, clothing, and transport is a formidable task. Many rural households are nearly self sufficient with regard to food, and funds required for education are generally predictable as are those for transport not related to illness and death. Provision in terms of savings, loans, and assistance from the extended family may be made to cater for expenses that are fully or partially predictable. However, ensuring the availability of funds to pay for health care when the need arises is usually more difficult because of uncertainties regarding the amount and the timing of health care required. User fees, therefore, by definition

severely limit the opportunities to incorporate insurance and/or solidarity mechanisms that reduce the impact of uncertainty on the consumption of health care. In this respect they are different from co-payments since the latter are not invariably paid at the point of use. Requiring patients to pay user fees eliminates the opportunity for health care to be free at the point of use. The World Health Report points out that the effect of co-payment in the form of user fees is therefore to *ration* rather than '*rationalize*' the use of a specific intervention.

### **Empirical Evidence**

Given the above review of the theory that points to several weaknesses in the case for user fees, consideration of the empirical evidence from different countries that have implemented user fees may serve as validation. The aim is to assess the performance of user fee strategies in terms of their proposed objectives. Despite the rhetoric of efficiency and equity objectives of user fees from the architects of the international policy initiatives cited above, user fees have mainly been presented as a credible means of raising additional revenue for the health sector in national strategies. One concludes that the goal of increased revenue generation is pursued as a prerequisite for financial sustainability that will ensure both efficiency and equity.

Among the first countries in which user fees replaced free, or virtually free, services at that time included Ghana, Zaïre, Swaziland, and Lesotho<sup>22</sup>. Several health care utilization studies then showed that following fee introductions there were significant reductions in the utilization of health services in all of the above countries (Ghana<sup>23</sup>, Zaïre<sup>24</sup>, Swaziland<sup>25</sup>, Lesotho<sup>26</sup>). Given that the impact of user fees on net revenue generation, efficiency, and equity are influenced by the rate and pattern of utilization, these empirical findings are predictive and of profound importance.

As an example, in 1985 the government hospital fees in Ghana were revised, such that the first visit to a specialist was ten times the minimal daily wage and incorporated charges for drugs that reflected their real cost. The changes coincided with, and became part of, the government's Economic Recovery Programme (ERP). The ERP met many of

the conditions laid down by the IMF and World Bank that were necessary for these institutions to provide credits<sup>27</sup>. Monitoring of the program indicated that by 1987 the target of recovery of 15% of recurrent budget had been achieved at the cost of substantial declines in the utilization of health care services. The decline was greater and more sustained in the rural than in the urban areas. The government authorized the revenue generated to be used by health facilities to purchase medical supplies on the open market, particularly drugs, and to undertake the minor repairs and maintenance required to improve the quality of their services.

Conceivably, if additional revenue were obtained, it could fund quality improvements. But as net revenue gains are determined by utilization rates and the costs of revenue fee collection, in practice significant gains have only been realized in a few isolated cases. Models of cost sharing for Zambia concluded that high fees would lead to considerably less revenue generation than more moderate pricing of health care<sup>28</sup>. Ghana's 15% of recurrent cost revenue was not sustained and the typical cost recovery ratios have been in the range of 1%-12% at least in the early periods of the introduction of the policies till the 1990s<sup>29,30</sup>. Given this low revenue performance of user fees, development assistance remains the most viable instrument for addressing the resource constraint faced by the health sectors of developing countries.

By the mid 90s user fees were common in several developing countries particularly in Africa where by 1995, 28 out of 37 countries studied in a World Bank survey had introduced fee schedules in government health facilities<sup>31</sup>. The post-80s literature on the experience may be divided into those that reported positive actual or potential impacts of fees, those that concluded that fees had an overall detrimental effect on utilization and efficiency and/or equity, and papers that dealt with aspects of implementation.

Much of the literature of the last decade that recounted the actual or potential merits of introducing user fees in health did so on account of the enhanced cost recovery,

especially of non-salary recurrent costs, that they facilitated in the African countries where the Bamako Initiative was launched<sup>32, 33</sup>. Most of these studies highlight the fact that although the revenue recovery via user fees of total health costs is not very high, it is increasing, and suggest that the share of recurrent non-salary costs (particularly drug costs) may range from 80% to 150%. One must appreciate, however, that recurrent non-salary costs typically account for less than 30% of the total cost health sector costs.

What is more important to note, however, is the fact that each of the studies highlights the need for a complementary policy of quality improvements (such as enhanced essential drug availability) to accompany this mode of cost recovery if the fruits of higher revenue generation are to be had. These quality improvements are argued to *lower* the effective price of health by counter-balancing the increased price of user fees, and in this way raise total utilization<sup>34</sup>.

The evidence indicates that increased utilization, whether observed across all socio-economic groups or limited to higher income groups, is facilitated by improved quality of health care made possible by revenue from user fees<sup>35</sup>. Significant percentages of populations “feel excluded from curative care for financial reasons” when user fees are implemented, thus suggesting that effective access of poor populations is lowered despite improvements in quality of care<sup>36</sup>. It is noteworthy that an effective means of limiting the adverse consequences on access is associated with fees applied not to health care itself, but to the provisions (such as inpatient ‘hotel services’) associated with health care thus allowing a process of ‘self selection’<sup>37</sup>.

There is thus a growing literature in recent times that has criticized more openly the adverse equity impacts of user fees in developing countries. Fees, even when accompanied by some quality improvements, can have severe effects on the demand for health care by the poor who get ‘priced out’ of the market<sup>38, 39</sup>. A survey of ‘community perceptions’ of the health reforms in Ghana shows how there was a feeling of “us” the poor versus “them” the rich, amongst those that had been denied

access to the new health market<sup>40</sup>. While this study also brought out the role that improved quality of health care has had on utilization, mainly in terms of the increased drug availability, they conclude that the policies have failed to protect the incomes and access to health care of the poor, especially because of the negligible level of exemptions. A similar perception of being “cheated” by the new cost sharing (user fees) policies was also reported by respondents of a survey in Zambia<sup>41</sup>.

Another study of health care seeking behavior in rural and urban health centers in three districts in Ghana shows an increase in cost-saving measures like self-medication after the introduction of user fee policies<sup>42</sup>. Cost of user fees was found to be the major deterrent and cause for delay in seeking treatment, especially amongst the poor, a large number of whom turned to traditional sources. In this respect it is worthwhile to note that findings in African countries, for example in Tanzania, revealed that the ability to pay for modern medicine is significantly lower than for traditional medicine<sup>43</sup>. The reason for this is that traditional treatments allow alternatives to cash payments (such as in kind, in work, or credit) and more importantly invoke a much greater degree of kinship support.

Early literature advocating user fees were not informed by these realities and failed to foresee the danger of implementing user fees based on the belief that high expenditure on traditional medicine implies high ‘ability to pay’ for hospital charges. It highlights the importance the ‘mode of payment’ and ‘timing of payment’ have on the effects of a cost recovery program, which we referred to earlier. What has also been shown by research is the fact that payments for *consultation* or *registration* (effectively ‘access’) have much more deleterious effects than payments for *treatment* or *services received*<sup>44, 45</sup>.

Finally, in addition to the impact on utilization by the poor, evidence exists of fees encouraging inefficiency through supply-induced demand and poly-pharmacy, particularly when the revenue is retained by the collecting health facility<sup>46, 47</sup>. Among

the studies discussing implementation are also those that suggest the need for a phased path of transition.

## **Conclusions**

The ultimate sources of most health care financing in all economies are the incomes of households from the factors of production and therefore user fees do not equate to additional sources of funds for the health sectors of developing countries.

Nevertheless, “user fees” as a financing mechanism has far-reaching effects. First, it has a bearing on the quantity and type of health care supplied (allocative efficiency). Second, it has a bearing on the degree of waste in the production process (internal efficiency). Third, as a financing method, it influences the a) probability of different individuals receiving care and b) the share of the total costs of funding care for the society that is borne by individuals and groups.

A possible objective for a government health service is to supply the type and mix of services that is demanded by the consumer (provision being determined by consumers' ability and willingness to pay for care and the costs of production).

Alternatively, an objective for the health service, one that implies a different value judgment, is to ensure equity in the access and consumption of health care. Clearly the financing mechanism that will efficiently maximize the first objective is unlikely to foster the second. User fees, like other financing mechanisms, therefore will influence whether a health service attains its objectives and whether it does so efficiently.

In low-income countries the rationale for discouraging user fees in the public sectors falls into two categories. The first is one of **equity**: this financing mechanism increases the financial barriers disproportionately faced by the poor when seeking health care. The second is **financial**: user fees lack the potential to secure increased private contributions to publicly provided health services needed for quality of care improvements. In evaluating user fees as a financing method, a critical criteria is efficiency, as measured by the ratio of gross yield (total revenue collected), and the

net yield (the actual available revenue for health care delivery). The performance of user fees in this respect is dependent on the flexibility of administrative and accounting procedures. Excessively stringent reporting requirements will increase administrative costs. Restrictions of reallocation of funds among budget headings or expenditures can cause inefficiencies in delivery. In general, the experience of countries that have introduced user fees as health sector financing strategies do not suggest it to be an efficient method of financing.

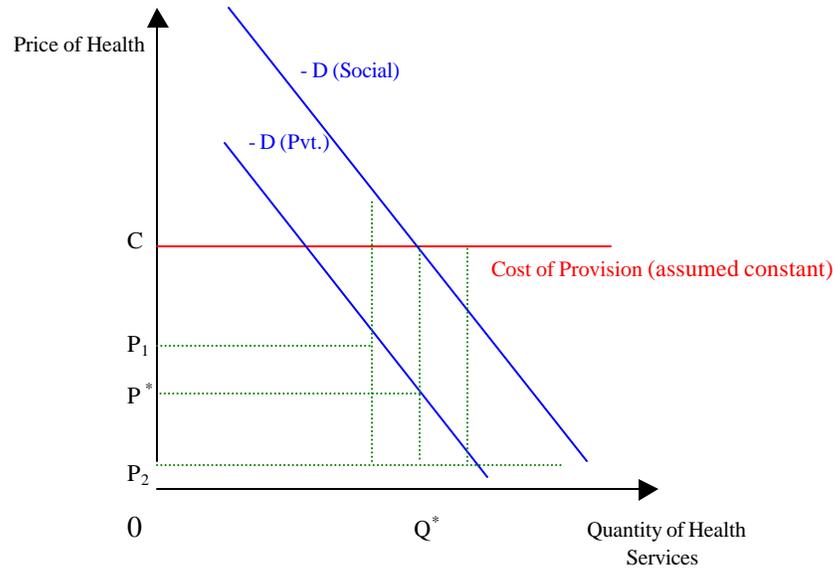
The difficulties in predicting health care needs, coupled with the irregular and seasonal character of rural incomes, are strong arguments against continuation of user fees for health care in low-income countries. As highlighted by the cost-recovery literature and the World Health Report, the ultimate goal of health policy in developing countries must be to implement an efficient system of community health insurance that cross-subsidizes from low-risk to high-risk cases and from rich patients to poor ones. Decentralized local health insurance schemes have the potential to break the cycle of (1) low utilization leading to (2) low revenue, resulting in the (3) inability to maintain quality in the government sector. This is because (unlike fee-for-service financing of health care) they lead to an increased funding base (healthy and ill persons). Secondly, funds can be pooled, permitting more efficient operations through bulk purchasing. Finally, if we compare the equity impacts of the two schemes<sup>48</sup> or the community perceptions towards insurance over user fees<sup>49</sup>, it seems clear that in the future, health care reforms in developing countries should focus on improving local health insurance, risk pooling, and pre-payment systems.

Unfortunately, few developing countries presently have the administrative and institutional infrastructure needed to implement a formal national health insurance scheme that provides universal coverage. The requirements for local decentralized schemes, though less stringent, are also not likely to be widely fulfilled in the near future. Therefore, immediate increases in development assistance for health will be required to assist poor countries to deal with the current health crisis they face from HIV/AIDS, malaria and TB. In the long run, international health policies supporting

the substitution of health insurance for out-of-pocket fees will be the necessary solution.<sup>50</sup>

## Appendix

**Figure 1:**



We have:

C = the cost of provision per unit of health care, which is assumed constant

Q\* = the *socially* optimal level of consumption of health (includes *external effects*)

P\* = the price per unit of health services that would ensure socially optimal consumption

P<sub>1</sub> = example of private access costs that are *higher* than the optimal price (implies under-utilization)

P<sub>2</sub> = example of private access costs that are *lower* than the optimal price (leads to 'excess' demand and so a user fee of (p\* - p<sub>2</sub>) would *ration* utilization till the optimal level Q\*.

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## References

- <sup>1</sup> WHO/UNICEF: *International Conference on Primary Health Care, Alma-Ata USSR*, 1978.
- <sup>2</sup> World Bank: *Financing Health Services in Developing Countries: An Agenda for Reform*, Washington D.C., 1987.
- <sup>3</sup> WHO: *Guidelines for Implementing the Bamako Initiative*, Regional Committee for Africa, Thirty-eighth session, Brazzaville, AFR/RC38/18 Rev.1, 1988.
- <sup>4</sup> UNICEF: *Recommendation to the Executive Board*, E/ICEF/P/L.40, 1988.
- <sup>5</sup> UNICEF: *Community Financing Experiences for Local Health Services in Africa*, E/ICEF/1988/CRP.2, 1988.
- <sup>6</sup> Jarrett, S., and Ofosu-Amaah, S.: *Strengthening Health Services for MCH in Africa: The First Four Years of the Bamako Initiative*, Health Policy and Planning, 7(2), 164-176, 1992.
- <sup>7</sup> Criel, B.: *District-Based Health Insurance in Sub-Saharan Africa*, Antwerp, IGT Press, 1998.
- <sup>8</sup> Fifty Years is Enough, *House Vote Opposes IMF & World Bank On "User Fees" for Education and Health in Poorest Countries*, Press Release, Washington D.C., July 25, 2000.
- <sup>9</sup> Dunne, N.: *Fees Issue Entangles US Debt Relief Plan*, The Financial Times, Washington D.C., October 17, 2000.
- <sup>10</sup> Shaw, R.P., and Griffin, C.C.: *Financing Health Care in Sub-Saharan Africa through User Fees and Insurance*, Directions in Development Series, World Bank, Washington D.C., 1995.
- <sup>11</sup> Gilson, L.: *The Lessons of User Fee Experience in Africa*, Health Policy and Planning, 12(4), 273-285, 1997.
- <sup>12</sup> Feldstein, M.S.: *Econometric Studies of Health*, in M.D. Intriligator and D.A. Kendrick (eds.), Four Frontiers of Quantitative Economics, 2, North-Holland, Amsterdam, 1974.
- <sup>13</sup> Heller, P.S.: *A Model of the Demand for Medical and Health Services in Peninsular Malaysia*, Social Science and Medicine, 22, 1986.
- <sup>14</sup> De Ferranti, D.: *Paying for Health Services in Developing Countries: An Overview*, World Bank Staff Working Papers, No. 721, World Bank, Washington D.C., HG3881.5.W57 W67 NO.721, 1985.
- <sup>15</sup> World Bank: *World Development Report*, World Bank, Washington D.C., 1993.
- <sup>16</sup> Stanton, B., and Clemens, J.: *User Fees for Health Care in Developing Countries: a Case Study of Bangladesh*, Social Science & Medicine, 29(10), 1199-1205, 1989.

- 
- <sup>17</sup> Jimenez, E.: *Pricing Policy in the Social Sector*, John Hopkins University Press, Baltimore, 1987.
- <sup>18</sup> McPake, B.: *User Charges for Health Services in Developing Countries: A Review of the Economic Literature*, *Social Science & Medicine*, **36**(11), 1397-1405, 1993.
- <sup>19</sup> Acton, J.P.: *Demand for Health Care among the Urban Poor with Special Emphasis on the Role of Time*, *Rand Corporation*, Santa Monica, No. R-1151-OEO/NYC, 1975.
- <sup>20</sup> Abel-Smith, B., and Rawall, P.: *Can the Poor Afford 'Free' Health Care: A Case Study of Tanzania*, *Health Policy and Planning*, **7**(4), 329-341, 1992.
- <sup>21</sup> World Health Organization: *World Health Report 2000 – Health Systems: Improving Performance*, WHO, Geneva, 2000.
- <sup>22</sup> Creese, A.L.: *User Charges for Health Care: a Review of Recent Experience*, *Health Policy and Planning*, **6**(4), 309-319, 1991.
- <sup>23</sup> 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.
- <sup>24</sup> Bethune, X. de et al: *The Influence of an Abrupt Price Increase on Health Services Utilization: Evidence from Zaire*, *Health Policy and Planning*, 1989.
- <sup>25</sup> Yoder, R.A.: *Are People Willing and Able to Pay for Health Services?* *Social Science & Medicine*, **29**(1), 35-42, 1989.
- <sup>26</sup> Bennett, S.: *The Impact of the Increase in User Fees: A Preliminary Investigation*, *Lesotho Epidemiological Bulletin*, 4, 1989.
- <sup>27</sup> Loxley, J.: *Ghana Economic Crisis and the Long Road to Recovery*, *The North-South Institute*, Ottawa, February 1988.
- <sup>28</sup> Arhin, D.C.: *Health Financing in Zambia: an Approach to Cost-Sharing*, Report on a research consultancy submitted to Zambia Ministry of Health and ODA, 1992.
- <sup>29</sup> Gilson, L., Russel, S., and Buse, K.: *The Political Economy of User Fees with Targeting: Developing Equitable Health Financing Policies*, *Journal of International Development*, **7**(3), 369-401, 1995.
- <sup>30</sup> Vogel, R.J.: *Cost Recovery in the Health-Care Sector in Sub-Saharan Africa*, *International Journal of Health Planning and Management*, **6**, 167-191, 1991.
- <sup>31</sup> Nolan, B., and Turbat, V.: *Cost Recovery in Public Health Services in Sub-Saharan Africa*, World Bank, Washington D.C., 1995.
- <sup>32</sup> Knippenberg, R., Levy-Bruhl, D., Osseni, R., Drame, K., Soucat, A., and Debeugny, C.: *Children in the Tropics: The Bamako Initiative Primary Health Care Experience*, *International Children's Center*, Paris, 1990.

- 
- <sup>33</sup> Audibert, M., and Mathonnat, J.: *Cost Recovery in Mauritania: Initial Lessons*, Health Policy and Planning, **15**(1), 66-75, 2000.
- <sup>34</sup> Litvack, J., and Bodart, C.: *User Fees Plus Quality Equals Improved Access to Health Care: Results of a Field Experiment in Cameroon*, Social Science & Medicine, **37**(3), 369-383, 1993.
- <sup>35</sup> Soucat, A., Levy-Bruhl, D., Gbedonou, P., Drame, K., Laramaque, J.P., Diallo, S., Osseni, R., Adovohekpe, P., Ortiz, C., Debeugny, C., Knippenberg, R.: *Local Cost Sharing Systems in Benin & Guinea: Assuring the Financial Viability of Primary Health Care*, International Journal of Health Planning and Management, **12**, Supplement 1, S109-S135, 1997.
- <sup>36</sup> Soucat, A., Gandaho, T., Levy-Bruhl, D., de Bethune, X., Alihonou, E., Ortiz, C., Gbedonou, P., Adovohekpe, P., Camara, O., Ndiaye, J.-M., Dieng, B., Knippenberg, R.: *Health Seeking Behaviour and Household Health Expenditures in Benin and Guinea: the Equity Implications of the Bamako Initiative*, International Journal of Health Planning and Management, **12**, Supplement 1, S137-S163, 1997.
- <sup>37</sup> Thomas, S., Killingsworth, J.R., and Acharya, S.: *User Fees, Self Selection and the Poor in Bangladesh*, Health Policy and Planning, **13**(1), 50-58, 1998.
- <sup>38</sup> Booth, D., Milimo, J., Bond, G., and Chimuka, S.: *Coping with Cost Recovery*, Report to the Swedish International Development Authority, Development Studies Unit, Dept. of Anthropology, Stockholm University, Stockholm, 1995.
- <sup>39</sup> Bitran, R., and McInnes, D.K.: *The Demand for Health Care in Latin America: Lessons from the Dominican Republic and El Salvador*, Economic Development Institute, World Bank, Washington D.C., 1993.
- <sup>40</sup> Nyonator, F., and Kutzin, J.: *Health for Some? The Effects of User Fees in the Volta Region of Ghana*, Health Policy and Planning, **14**(4), 329-341, 1999.
- <sup>41</sup> Van der Geest, S., Macwan'gi, M., Kamwanga, J., Mulikelela, D., Mazimba, A., and Mwangelwa, M.: *User Fees and Drugs: What Did the Health Reforms in Zambia Achieve?* Health Policy and Planning, **15**(1), 59-65, 2000.
- <sup>42</sup> Asenso-Okyere, W., Anum, A., Osei-Akoto, I., Adukonu, A.: *Cost Recovery in Ghana: Are There Any Changes in Health Care Seeking Behaviour?* Health Policy and Planning, **13**(2), 181-188, 1998.
- <sup>43</sup> Muela, S.H., Mushi, A.K., and Ribera, J.M.: *The Paradox of the Cost and Affordability of Traditional and Government Health Services in Tanzania*, Health Policy and Planning, **15**(3), 296-302, 2000.
- <sup>44</sup> Collins, D., Quick, J., Musau, S., Kraushaar, D., and Hussein, I.: *The Fall and Rise of Cost Sharing in Kenya: the Impact of Phased Implementation*, Health Policy and Planning, **11**(1), 52-63, 1996.
- <sup>45</sup> Diop, F., Yazbeck, A., and Bitran, R.: *The Impact of Alternative Cost Recovery Schemes on Access and Equity in Niger*, Health Policy and Planning, **10**(3), 223-240, 1995.

---

<sup>46</sup> Kutzin, J.: *Experience with Organizational and Financing Reform of the Health Sector, Current Concerns Strengthening Health Services Paper No. 8*, WHO/SHS/CC94.3, World Health Organization, Geneva, 1995.

<sup>47</sup> McPake, B., Hanson, K., and Mills, A.: *Implementing the Bamako Initiative in Africa: A Review and Five Case Studies*, PHP Departmental Publication No. 8, London School of Hygiene and Tropical Medicine, London, 1992.

<sup>48</sup> Chawla, M., and Ellis, R.: *The Impact of Financing and Quality Changes on Health Care Demand in Niger*, Health Policy and Planning, **15**(1), 76-84, 2000.

<sup>49</sup> Walraven, G.: *Willingness to Pay for District Hospital Services in Rural Tanzania*, Health Policy and Planning, **11**(4), 428-437, 1996.

<sup>50</sup> Arhin, D.C.: *Health Insurance in Rural Africa*, Lancet, **345**, 44-45, January 7, 1995.