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**EQUITY AND GENDER ISSUES IN HEALTH CARE PROVISION.
The 1993 World Bank Development Report and its
Implications for Health Service Recipients**

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EQUITY AND GENDER ISSUES IN HEALTH CARE PROVISION.
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Service Recipients.

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1. Introduction.

It is frequently observed that reductions in health expenditures in developing countries particularly affect women. Women's responsibility for childcare and the overlap between health care work and other house work differentiates their relationship to health care from that of other household members. When state provision of services is limited or restricted they have to manage the household's alternatives. Many structural adjustment programmes lead to reductions in real levels of per capita public health expenditures (Pinstrup-Andersen et al, 1987). The aim of this paper is to consider the equity implications and identify their gender specific consequences.

The paper focuses on the World Bank's proposals for reforming health sector financing which are most recently and comprehensively outlined in the 1993 *World Development Report*. The core elements of the *Report's* analytical framework date back to the 1987 *World Bank Policy Study* (Akin et al 'Financing Health Services in Developing Countries') and are reflected in the series of country study reports on health sectors that precede the 1993 *World Development Report*.

Here, examples are drawn from the experience of Zimbabwe, a country that has recently started to implement cost recovery from users, a central element of the World Bank's proposed reforms. In order to capture the gender specific implications of such cost recovery the household has to be conceptualized as a unit of production rather than the conventional economic practise of identifying households solely as consumers and savers. Furthermore, in many developing countries (including Zimbabwe) it is important to take into account resource flows between urban and rural households when examining equity and gender issues.

The paper proceeds as follows. First government expenditures on health care are discussed in the context of structural adjustment programmes. The World Bank's identification of the problems facing health care service provision in

¹ I would like to thank Graham Pyatt for his extensive and useful comments on this paper.

developing countries and their proposals for its reform are examined in section three. Section four presents the analytical core. It distinguishes between demand and supply side approaches to the financing of state health care provision. It is argued that in the first instance the World Bank implicitly adopt a strict supply side approach in the analysis that underlies their proposed reforms of the state's responsibility for health care. This is the implication of their by characterization of the attributes of 'health goods' as being either predominately public (high positive externality) or private goods. The rule then becomes that state funding is justified where clear public good characteristics exist in health care programmes but not where consumers are choosing between the likes of consumer durables on the one hand and medication to treat high blood pressure on the other.

Section four also discusses the consistency of this policy with the World Bank's stated concern with poverty alleviation, improving the status of women and human capital formation in general, which must depend crucially on two considerations. The first is the construction of a social 'safety net' for the poor. How will those who are too poor to pay for health care be defined, by what mechanisms can they be exempted from charges and how can such a system be administered at a low cost? The second is the cost effectiveness of private sector provision of health care services. Will the re-emphasis on the role of the market in health care services lead to increases or decreases in the relative price to the consumer of health care?

The final sections examine ways of assessing the impact of introducing user charges for health care services. Section five discusses estimation of demand elasticities. It is argued that any analysis that fails to take women's access to paid employment and control over money income into account is likely to produce spurious estimates of the willingness to pay for medical services. Another way of investigating the issue draws on Sen's exchange entitlement approach which identifies the household as a unit of production and is presented in section six. The exchange entitlement approach is then used to illustrate how changes in health care provision may interact with other exogenous or endogenous changes to result in increased vulnerability of the poor in general and women in poor households in particular.

2. The Role of Government in the Provision of Health Care Services.

Slow rates of economics growth and stagnation experienced by many sub-Saharan African countries in the 1980s have placed severe limitations on government revenues. Structural adjustment programmes adopted in African countries in the 1980s and 1990s have, *inter alia*, aimed to reduce the government's budget deficit and therefore entailed reductions in government expenditure. Although governments were often successful in keeping the share

of government expenditure allocated to health roughly constant², structural adjustment programmes implemented in the 1980s were associated with reduced real per capita government expenditures on health care in a significant number of countries.

Nine³ out of sixteen adjusting sub-Saharan African countries had higher real per capita expenditures on health in 1980 than in 1987-9 (Jespersen, 1992). Real per capita government spending on health care in all sub-Saharan Africa peaked at \$9.50 in 1982 and only surpassed this level again in 1987 when it reached \$9.90 (Ferroni and Kanbur, 1990). The incidence of health expenditure cuts has usually fallen on investment, maintenance and other non-wage recurrent costs, including drugs and medical supplies, causing great reductions in the quality medical care received by patients (Jespersen, 1992).

The policy response to the current problems facing the health care services has been to revise the aim of the provision of free health care for the whole population financed by taxation and provided by the state. There is broad consensus that current economic conditions in developing countries make such an aim infeasible in practise whether or not it might still be considered desirable in principle (Mills 1982, Ugalde 1985, Akin et al 1987, Vogel 1988, Over 1991, World Bank, 1993).

In practise health services were always rationed to some extent by the state's capacity to supply all the population with the desired level of health services given its budget constraint. A typical example of this rationing is the number and distribution of health facilities available to the population. While health care may be free in theory the reality for many people, particularly those in isolated rural areas is that they have to spend a long time travelling to the nearest clinic (Dor and van der Gaag, 1988).⁴ The expense of travel and lost working hours means that in practise these people do not have access to free health care.⁵ Nevertheless the aim of state

² 6% is the average for all sub-Saharan Africa between 1983-7.

³ Cameroon, Cote d'Ivoire (1985), Kenya, Liberia, Malawi, Nigeria, Tanzania (1985), Togo, Zambia. (Figures in brackets show latest year available, when it differs from 1988/9.)

⁴ Their study is of rural Cote d'Ivoire where travel time acts as a rationing mechanism for free health care. They also found that access to higher quality care, i.e doctors, is always completely restricted by travel requirements.

⁵ R. Loewenson's (1991) study of agricultural workers in Zimbabwe shows that their access to health care services is severely limited due to their isolated geographical location and their conditions of employment. Thus even in a country where primary health care provision has been given considerable priority and resulted in improved infant and child mortality rates despite the adverse economic conditions of the 1980s, quantity rationing excludes some of those most in need from the benefits of extended primary health care

provision was there in principle and justified, at least in part, by the links between economic development and health status of the population.

Correlations between levels of per capita income and health related indicators such as life expectancy are well established in the development literature. In many instances there are convincing reasons to conclude that the causality runs from improvements in these indicators to economic development. One good example is increased provisions for child and maternal health, especially those that succeed in decreasing the mortality rate of children under five years old, which are highly correlated with reductions in the birth rate. Evidence from many countries has shown that together with increases in literacy rates, the availability of education and the status of women, improvements in these health services are key factors in determining the uptake and success of family planning programmes in developing countries. Ensuing reductions in the fertility rates allow faster rates of per capita GDP growth and so, in the long run, health expenditures aid the development process. Another example is the impact of improved health of workers on a firm's output and efficiency where improvements the general health status of the economically active population improves the overall productivity level and motivation of the labour force. Ways in which improved health of the labour force can influence productivity⁶ include fewer days off work and a longer working life, more strength and endurance on the job, more time to specialize and less job disruption and more energy for technological innovation and adaption (Over 1991).

Health related expenditures are therefore justified not only by governments political and ideological commitments to the human right of good health for their citizens but also because of the effect of these expenditures on demographic trends, human capital formation and other targets of government policy which may include greater equity and equality of opportunity.

3. Reforming the Health Sector in Developing Countries.

From the mid 1980s, prompted to some extent by perceptions of escalating costs of government expenditure on health services in developed market economies, the view that the state in developing countries should be the main provider of these services has been subjected to question. Published in 1987,

programmes.

⁶ Estimates of the value of productivity increases are difficult to quantify as the productive process may adjust with long lags. Moreover the adjustment is likely to be accompanied by changes organisation of the labour process and so it may be difficult to identify the exact source of higher productivity.

the *World Bank Policy Study 'Financing Health Care Services in Developing Countries: An Agenda for Reform'* (updated by the 1993 *World Development Report*) proposes a policy reform package for health sectors in developing countries. The central proposition is to reduce government's responsibility for paying for services that provide few benefits for society as a whole and to exempt the government from providing services for the rich.

''The main problem with universal government financing is that it subsidizes the wealthy, who could afford to pay for their own services, and thus leaves fewer government resources for the poor."''⁷

Use of traditional healers and medicines, private practitioners, private hospitals and expenditures on drugs and pharmaceuticals in the private sector it is argued, suggest that individuals in developing countries are prepared to pay for at least some kinds of health services. Where demand exists for private health care its provision should be shifted to the non government suppliers. The public health sector should be reorganised to be financially more self sufficient while at the same time providing a safety net for the poor whose needs would otherwise not be met.

Three problems of health sectors in developing countries are identified by the 1987 *Policy Study*. First, there exists an allocational inefficiency. Not enough is spent on cost effective mainly preventative health services and too much on relatively expensive curative services. The cost per life saved is higher in hospitals than in preventative services and community programmes yet hospitals usually absorb the lions share of health sector expenditures. More resources should therefore be redirected to where they are used most efficiently.

Second, internal inefficiencies exist. Government health sectors are often top heavy bureaucracies, where health sector workers are unable to work efficiently and respond to users demands due to inappropriate organisation and institutions. These inefficiencies hamper the distribution of services equipment and drugs and lead to inconsistent resource use. Examples given are of doctors who cannot accommodate their patient loads while other trained staff are not productively used and lower level facilities being under used when hospital facilities are over crowded.

Third, the system perpetuates inequity between rich and poor. The urban and the rich benefit disproportionately from the health services compared to the rural and the poor. Health services concentrated in urban areas reached more easily and cheaply by the urban relatively rich population. Those from rural

⁷ *World Development Report*, 1993, 11.

areas have to travel long distances to reach hospitals and clinics at a high personal opportunity and monetary cost. The urban and rich benefit as they can often afford to pay for private health services and because they know how to use the public system. The argument is therefore that free health services for all subsidise the rich.

The policy package proposed aimed at alleviating financial pressures on the health sector and ameliorating the problems identified above consists of -:

- 1) Introducing user charges combined with measures to protect the poor from the adverse effects of these costs.
- 2) Promoting the use of health insurance schemes to cover cost of medical treatments for an increased proportion of the population. Compulsory coverage of all formal sector workers is proposed together with measures to ensure competition between insurers so that schemes are low cost.
- 3) Utilising non government resources more fully. Encouragement and incentives should be given to the non government sector, including missions and non profit making organisation along with private practitioners to provide services for which consumers are willing to pay.
- 4) Decentralizing planning, budgeting and purchasing to counter internal inefficiency. Introducing market incentives, by allowing collection and retention of user fees at the point of service, is another complementary change proposed. Local units providing direct services to people are thus given more responsibility in determining how collected funds and money from central government will be spent. Local staff have incentives to collect charges and become more accountable to users of the service. Personnel management and staff discipline may also improve as a result of these organisational changes.

The 1993 *World Development Report* draws on the foregoing analysis of the problems facing health service suppliers in developing countries and in the main advocates the policy reforms above with some modifications and minor additions.

The most significant modification is the analysis of women's role in promotion of the health status of the family and their own health needs, an element completely absent in the 1987 *Policy Study*. The need to adopt policies to ensure that girls have access to schooling and women's status in society is improved by, for example discouraging and legislating against labour market discrimination and other legal and institutional arrangements that can prevent their access to income by restricting or prohibiting their ability to own or borrow capital and land, is stressed. Women's specific need for health services are discussed, with the estimation cited that one third of global disease burden for women between the age of 15 and 54 years is caused by disease or illness specific to them. Empowerment of women is supported as a strategy to ensure that women have access to and use health services and to

combat rape and domestic violence.

Contradictions that may arise between the views cited above and policy proposals advocated by the *World Development Report* and the changing economic conditions associated with structural adjustment outside the health sector are not however addressed. When, for example, the government is under pressure to cut its budget deficit it is likely that expenditures on education are affected as much as those on health. Given the substantial reduction in school enrolments for girls that occurs in many developing countries once fees for education are charged, for example at secondary schools, the implication is that education expenditures would have to be expanded to raise the level of women's literacy and education. Furthermore there are aspects of the health policy package itself which can limit women's ability to carry out good health practise in the home and for their children because of increased demands on their time and income. These are returned to in section four.

The 1993 *World Development Report* emphasizes that government intervention in health markets is justified not only because of the public good characteristics of many health services but also to alleviate poverty. In the name of poverty alleviation an essential package of clinical services⁸ is added to government's responsibility for public good types of health services. Governments are urged to exam the cost:benefit ratios associated with different sorts of health care services when making decisions about which services to provide, the argument being that many of the most cost effective interventions are also of greatest benefit to the poor and the whole population benefits from the government getting as much value for money as possible. Potential market failures arising from greater private sector health service supply are also examined in greater detail in this report than in previous World Bank Publications.

Three types of market failure that can occur when health care is provided by the private sector financed by health insurance schemes are identified. First adverse selection can occur as people have more information about their health needs than insurance companies, predominantly those who are likely to need costly health services will insure themselves. Private companies will either not take on those likely to need frequent or expensive health care, or will increase premiums to prohibitive rates. Where private health insurance schemes attempt to screen out potentially 'expensive' customers, for example the old, the public sector is likely to be left with the section of the population that is most costly to treat.

⁸ The minimum package including care for sick children, family planning, prenatal care and delivery, tuberculosis treatment and treatment for sexually transmitted diseases, including AIDS.

Second private insurance may mean that people change their behaviour resulting in their consuming more health services than they would otherwise - the problem of moral hazard. This can push up the cost of health insurance premiums for all resulting in very expensive health care systems.

Third information asymmetries between patient and doctor means that the patient can end up paying or claiming insurance for very costly treatments when alternative equally effective and sometimes more appropriate low cost treatments are available.

Despite the potential costs arising from market failures the focus remains on promoting increased private sector provision of health care as the *World Development Report* argues,

''...the primary objective of public policy should be to promote competition among providers...Competition should increase consumer choice and satisfaction and drive down costs by increasing efficiency. Government supply in a competitive setting may improve quality or control costs, but noncompetitive public provision of health services is likely to be inefficient or of poor quality."9

To sum up, the underlying analysis is that government's provision of health services should be restricted to those that are public goods with some additions (including the construction of safety nets) to meet demand from the poor who would otherwise not have their health care needs met.

''Beyond a well defined package of clinical services therefore the roles of government in clinical services should be limited to improving the capacity of insurance and health markets to provide discretionary care."10

4. Demand and Supply Side Approaches to Health Care.

It is worth exploring two of the main arguments that underpin the rationale for this strategy before going on to examine the need to incorporate an analysis of gender when assessing the impact of these health sector policy reforms. The first is that health care can be conceptualized as consisting of public and private goods. The second is that the proposed reforms redress inequities associated with the current modalities of health service provision.

⁹ *World Development Report* 1993, p.58.

¹⁰ *Ibid*, 57.

Conceptually health care services are divided into those with predominantly public good qualities and those with private good qualities. Preventative health services, for example immunization programmes, spraying to prevent vector born diseases and oral rehydration programmes are defined as public goods, their benefit being greater to society than to the individual. In contrast curative medicines, treatment of individuals for illness by drugs or operations performed in hospitals or surgeries are private goods as the benefit from these treatments are said to accrue solely to the individual. From this conceptual divide the analysis follows that government responsibility for the kinds of services that provide few benefits to society as a whole should be reduced. The argument for government concentration on 'public good' types of health provision is reinforced by the fact that these services frequently benefit the poor more than other sorts of health services and are thus consistent with the aim to increase equity.

In fact the division of health provision into public and private goods is not as straightforward as it seems nor is it necessarily the only, or most appropriate, criterion to use to determine where governments should draw the line that decides where governmental responsibilities can end and the market be expected to take over. The example given in the 1987 *Policy Study* is that an aspirin taken for a headache constitutes an entirely private gain from an expenditure on health. In fact the gains accrue to many more than the individual concerned as anyone who has to live or work with people who suffer from chronic headaches will know. The public private divide ignores many of the human capital arguments that support state provision of health services and would include curative services in their terms of reference. Benefits from an individual taking medicine may accrue to others, for example, not only as an improvement the quality of their life but also perhaps to their levels of productivity or ability to learn or work effectively. It is obviously possible to extend this sort of argument to individual ailments that involve more substantive expenditures and expensive treatments for individuals. Does the provision of casualty services accrue only to the individual or does society benefit from not placing the responsibility of what happens after a car crash on the reactions and skills of the people who happen to be in the vicinity at the time? The point is not that no gains accrue to the individual from the availability of public sector health services but rather that the criterion of attributing predominantly private rather than predominantly public gain to a particular services is not a very useful one.

A further complication exists as increased provision of primary health care programmes much of which will fall into the public good category is likely to result in increased demand for curative services. The more children that survive due to immunizations in a rural community for example the greater the

demand will be for treatment of diseases they may catch, accidents they may have and other curative treatments they may need later in life. Human capital consideration would lead to the inclusion of these sorts of health care needs into the public (high positive externality) category too.

The motive for restricting the government's role in health service provision is to produce a lower cost, more efficient and more equitable system of health provision. The question is therefore, given these aims, which economic criteria (other than the public private good division) can assist governments to restructure their health services?

A more conventional starting point is to examine the characteristics of market demand for health care in conjunction with supply side factors. Health care services are supplied by a small number of institutions and organisations besides the government in developing countries. Governments are thus suppliers in a oligopolistic market so an alternative criterion to the public-private categorization is that given by the inverse relationship between price and demand elasticity in a imperfectly competitive market¹¹ -:

$$P = \frac{MC}{1 + (1/E_d)}$$

Here P is price, MC marginal cost, MR marginal Revenue and Ed the price elasticity of demand.

The equation shows that the more elastic market demand is the lower the mark up over marginal cost will be so prices will tend towards those of a competitive market. Conversely lower demand elasticities are associated with higher markups over marginal cost.

Ensuring low cost health services thus implies that the government should disburse to the private sector the components of the health service that have

¹¹ This equation is derived for the simplest case of non competitive markets that of the monopolist,

$$\begin{aligned} MR &= P + Q \frac{\Delta P}{\Delta Q} = P + P \left(\frac{Q}{P} \right) \left(\frac{\Delta P}{\Delta Q} \right) \\ MR &= P + P \left(\frac{1}{E_d} \right) \\ \text{If, } MR &= MC \\ P &= \frac{MC}{1 + 1 \left(\frac{1}{E_d} \right)} \end{aligned}$$

In an oligopolistic market other suppliers reactions to firm's pricing policy have to be taken into account as well.

greatest elasticity of demand. These sorts of services are likely to be associated with higher 'quality' characteristics. The choice could be between going to a clinic where you have to wait a long time and being able to arrange an appointment with a doctor at your convenience or receiving treatment in a private room or a general ward in hospital.

Concern with increasing equity in access to health provision will mean that for the majority of health services it is not appropriate to try distinguish the more demand elastic services by type (ie is the demand for maternal and child health services more elastic than the demand for treatment for sexually transmitted diseases) as introducing user charges for such (price elastic) services would have adverse welfare effects as people stopped seeking treatment. Furthermore much health care demand cannot be divided into discrete components so there are limits to the practical application of such an exercise. It is however possible (and usually implicit in most health care systems) to construct some sorts of ranking of priority of different types of health provision according to social and political priority and this might result in lower priority services being disbursed to the private sector.

A more practical application of the demand elasticity criterion would be to compare price elasticities of demand between different institutions offering the same types of service to similar clients, government clinics and mission hospitals for example. If people are more willing to pay for services of mission hospitals than government clinics as the service is better (drugs are more likely to be available and the range of treatments is greater) then more government funding should go to the more price inelastic type institutions and policy changed to enable government clinics to replicate the more price inelastic institutions.

The second argument, closely related to the supply side approach, is that by relieving governments of responsibility for the categories of health care that people are willing to pay for more resources are released which can be spent on services for the poor. The 1987 *Policy Study* argues that as households in rural Mali, Indonesia and Malawi already spend up to 10% of their income in fees to traditional practitioners this indicates,

"an ability and willingness to pay for traditional curative care and perhaps for some ineffectual drugs: the public sector could tap this source to finance modern curative care and effective drugs and free public funds for preventative programs".¹²

Here it is important to note that the assumption is being made that the health care that people are observed to be paying for is considered a

¹² *World Bank Policy Study*, 1987, 31.

substitute for other health services as,

``..user charges at public facilities might not raise total household spending but would simply divert spending away from less effective traditional care and drugs."13

This is not necessarily the case. However, the observation that people pay traditional healers has caught the imagination of many donors and policy advisors and is used frequently to support the idea of that an untapped capacity to pay exists in some of the poorest communities.

Mutambirwa (Mutambirwa 1989) explores why dual consultations with modern and traditional health services exist in Zimbabwean communities. From her analysis it is apparent that consultations for some sorts of health services traditional healers provide occur because perceived health needs (roughly those relating to mental and spiritual health) are not met by modern medical treatment. If the services of traditional healers are thought to be an essential complement to those of modern medicines introducing additional charges will, in the absence of any increase in household income, reduce the consumption of health care services.

User charges and increased reliance on the private sector are not however the only way to capture the gains of some peoples willingness and ability to pay for health care; noticeable by its absence is the omission of any discussion on the use of progressive taxation to capture these gains. The earlier cited quote from the 1993 *World Development Report* is misleading. The wealthy are only subsidized in the absence of a progressive system of income tax.

It is generally agreed that developing countries lack the capacity to institute a fully progressive income tax system and that the narrowness of the tax base limits potential revenues that can be generated from this source. This does not imply however that there is no capacity at all to extend the tax base or that strengthening existing capacity is not a valid aim. Many of the people able to pay for health services will be working in formal sector employment or running businesses that should be subject to taxation. If people have enough disposable income to spend on health services, effective subsidies that occur with universal free provision can either be redressed by charging these people when they consume the service or by increasing their tax contributions so they are not effectively subsidized.

Another alternative (which is discussed in the 1993 *World Development Report*) is that indirect taxes on goods like alcohol and tobacco, or other goods that are detrimental to health status, can be introduced on the ground

¹³ Ibid, 31.

that any reduction in their consumption improves general health status and the extra revenues earmarked for the health sector. Similarly indirect taxation on luxury consumption items may be appropriate in some countries.

Increased reliance on non government organisations and companies to provide health services does not necessarily lead to more cost effective health service provision. If formal sector employers can be required to provide health insurance for their employees there is no reason why such payment should be to private companies rather than the government and there are economic reasons why this may be preferable. Prices charged for health services are administered rather than market prices so they are often consistently set above marginal cost (Newhouse, 1992). Rents accruing to health service producers may mean that there is an incentive to induce demand.¹⁴ Alternatively rents can be dissipated over product characteristics, for example by doctors spending more time with their patients. It may therefore be more cost effective in the long run to strengthen government ability to recoup the costs of health provision from those who can pay and to design institutional reforms to improve efficiency. Health service markets in many developing countries may be more monopolistic than competitive. Market size (determined by those who can pay) is small¹⁵ and economies of scope and some economies of scale will certainly exist. So it is unlikely that government policies to induce competition can guarantee that the private sector will provide low cost schemes. Evidence from developed market economies shows that even when market size is large welfare losses can occur when private health insurance is used.

Market segmentation between private and public health service provision is another reason to respond to problems that developing country governments face by strengthening their ability to administer and manage their existing responsibilities for health care rather than disburse it to the private sector. Doctors, nurses and other trained health sector personnel can earn very different salaries for the same service depending whether they are employed in the private or public sector¹⁶.

The private sector thus competes with the government sector for the same skilled workers whose training costs are partially if not totally government subsidised. There are therefore good reasons for developing country governments to recoup the costs of their investment by taxing the private

¹⁴ This is another type of moral hazard that can occur if health care is financed through insurance schemes.

¹⁵ A rough calculation for Zimbabwe results in a market size of 500,000 given a population of 10 million, 50% of whom are under 16 or over 60, and that 90% are exempted from charges as they earn less than Z\$400 per month.

¹⁶ This could be extended to include returns on capital and equipment.

sector. Take the example of trained nurses and physicians, in Zimbabwe 70% of physicians and over 60% of nurses are recorded as being privately employed (Akin et al 1987). Although some may not be practising (or not practising in Zimbabwe) these sort of percentages imply a nearly a totally elastic supply of these personnel to the private health sector at its given wage rate. Governments could tax the private sector, on the basis of its annual turnover to increase health sector revenue. The costs of this tax would be passed on by the private sector in the form of lower wages or higher charges or some combination of the two. An effective subsidy to rich consumers is reduced as the cost of their health care now reflects full social cost of their use of resources to society and the wedge between remuneration in the private and public sectors reduced.

The effect of negative externalities generated by private sector health care service supply on public sector health care services provides a further justification for taxation of private sector activities. Maintenance of and improvements in the standards, delivery and efficiency of public services are often prompted by the actions of the well educated middle classes. If private health care accounts for a large proportion of market demand it can generate negative externalities as the middle class, who can afford to pay, are removed from the public health sector. Poorer and less well educated people may not have the confidence to challenge the professional authority of doctors, have no or little recourse to the legal system, may have less leverage on governments and often are unaware of formal channels for complaints or grievances.

Without measures that allow effective government intervention to control and regulate the economic environment within which all health services operate a health service that serves the poor is in danger of becoming a poor service. If governments cannot recoup subsidies to the private health sector or the tax negative externalities they generate, the resultant under funding of the public health sector will mean to wages and salaries will remain at low levels in the public sector. Public sector employees then have huge incentives to move to private sector employment and thus removing much needed skills and resources from the public sector.¹⁷ Designing and implementing appropriate taxation strategies requires the strengthening of government capacity to gather information and enforce legislation. As the organisation concerned with the long term implications of structural adjustment the World Bank should address itself to this problem.

¹⁷ Other measures need to be considered to hold resources in the public sector. These can include non cash benefits such as housing, transport, health and education children of health sector workers, directed to those on low salaries within the service. Ensuring that a career structure exist with possibilities for further training and promotion is also important to avoid the high rates of attrition often associated with village health worker schemes (Ferster and Tildman 1982).

In some instance direct charges to users may be the most appropriate and efficient way in the short run to increase health sector resources and address current inequities in the system. At local levels particularly in rural areas many health sector workers possess the information necessary to assess how much a client is able to pay and as is pointed out, mission hospitals and clinics often charge small amounts for their services.¹⁸ In some countries inability to finance drug and equipment expenditures and low wages have led to *de facto* user charges. So introducing some payment is not necessarily out of keeping with current practise and a case exists for charges for some services to be formally adopted as a solution to some of the problems of financing health care, if only as an interim solution. Giving direct control over funds they can generate themselves to local clinics and health centres may well obviate some of the problems associated with the logistics of distribution and organisation of health services in countries where transport and communications are difficult. Nevertheless great care has to be taken to ensure the increased costs associated with administering health charges do not outweigh increases in associated revenues.

Furthermore implementing such a policy requires, if it is to have no undesired effects on welfare and health status, extensions of governments existing administrative and organisational capacity which could involve fundamental reform and restructuring of existing systems of health service provision. Where health services are provided by different suppliers (eg. mission hospitals, municipal and district authority hospitals and government hospitals) that may be funded to varying extents by the ministry of health, care has to be taken that uniform user charges are adopted. If the existing structure of government subsidy results in some hospitals charging higher fees for the same service than others, consumer use will be concentrated on the supplier of the lower cost service. The problem is further exacerbated in the absence of a comprehensive and efficient system to assess ability to pay. Where charging is left to the discretion of clinic or hospital employees informal sector workers unable to establish clear proof of their earnings are likely to try to attend clinics that are known not to enforce charges. In countries where rural urban linkages are strong this may imply more pressure on rural clinics and hospitals or mission hospitals as they are likely in practise to have to use their discretion about charging.

Obviously structural reforms need to be undertaken before user charging is implemented and they will require an increased health sector budget to identify the needed reforms, retrain personnel where necessary and increase efficiency in the distribution of drugs and medical equipment to health

¹⁸ Vogel (1988) argues that the mission hospital system in Mali, Senegal, Cote d'Ivoire and Ghana provides the appropriate model for health sector financing reforms as it serves a similar population group as the public health system and charges (small amounts) for its services.

service suppliers. A system of exemption for the poor will involve expanding social welfare employment in order that assessment of ability to pay can be quickly done. In countries with large dispersed rural populations facilities may have to be set up in rural areas to supply information of the new system and guarantee that exemption for the poor is an option in reality.

Increased reliance on user charges as a long run policy goal should be seen as one or a range of several possible policy instruments that governments can use to reduce inequity in health service provision. It is unlikely to generate large amounts of extra revenue for the health sector, while at the same time avoiding adverse effects on the health status of the poor, unless the structure and capacity of systems of existing health care delivery are substantially strengthened. Complementary policy interventions, in education and social welfare for example, are necessary to ensure that exempting the poor from charging are feasible in practice and these will involve increased expenditures in these areas.

Financing the health sector must combine strategies to increase revenues from taxation, by removing subsidies to private health care redressing the negative externalities it generates, using indirect taxes on specific (health damaging) goods and possibly a limited use of individual payments. When the private sector is relied upon to meet demands for some health care services the economic relationship between private and public provision has to be carefully analyzed to ensure private sector has to pay for resources at rates that reflect full social cost, otherwise the rich will continue to receive an effective subsidy for health care. Unless governments have the capacity to effectively intervene to regulate the private health care financiers and suppliers the segmented nature of the health service market means that the gap between the quality of care provided in government and private facilities widens. Where segmented markets exist it does not automatically follow that introducing greater competition and increasing the number of suppliers will result in lower costs and greater efficiency, monopolistic conditions may prevail.

5. Theories of Household Behaviour and the Effects of User Charges.

Decisions made in the household are fundamental determinants of the health status of the population. They include the purchase and allocation of food to household members, the decision to limit family size and how to allocate expenditure when relative prices change. Estimations of the price elasticity of demand for health services is one way to measure the effect of introducing charges for health services on health status. If demand elasticities are low, changes in price have only small effects on the amount of health services consumed, high demand elasticities show a small increase in price results in

a large decrease in health services 'demanded'. The *Policy Study* (1987) cites studies¹⁹ that show that there is very little reduction in overall health care due to their low price elasticities. One estimate of price elasticities is between 0.1 and 0.5 for developing countries.²⁰

Gertler and van der Gaag (1988) argue that the low price elasticities are a result of misspecification. The price effect is specified independently of income, so the impact of household income and wealth on responsiveness to price changes is ignored. When models that specify an interaction between price and income in the demand function are used quite different results emerge. Work on Peru (Gertler, Locay and Sanderson, 1987) shows that prices are important determinants of medical care and elasticities become greater as income falls. A study that examines the potential impact of introducing user fees to rural Cote d'Ivoire shows that the welfare of household in the top half of the income distribution would increase but the welfare and medical care use of households in the bottom half of the income distribution would be reduced (Gertler and van der Gaag, op. cit.). Introducing user charges can therefore be a highly retrogressive policy. The authors advocate price discrimination in fees charged so clinics in richer villages charge fees and those in the poorer ones are subsidized.²¹

Disaggregated data showing the different costs (including the cost of travel time) associated with different types of health service use by households from different income groups were necessary to estimate the elasticities above. Serious attempts to introduce non regressive systems of health charges require developing countries to produce gather and analyze reliable household income and expenditure data. This is a difficult and expensive task especially when own production constitutes a large component of household income, common in many low income countries especially where high proportions of the population live in rural areas. Assessing which villages or urban area needs subsidies and to what extent implies that the exercise has to be repeated to take account of changing social and economic conditions.

The information provided by elasticity estimates of the demand for health care services does not allow us to draw water tight conclusions about the policy's likely effects, even if complete information on household income and

¹⁹ For the Philippines and Malaysia but, as is noted by the authors, these studies do not differentiate between the response of the non poor and the poor.

²⁰ M.Over, op. cit.

²¹ Evidence from developing countries shows that households in rural areas are highly differentiated, having different ownership and access to land and productive assets. So the identification of 'rich' and 'poor' villages will not remove all sources of inequity in health service provision.

expenditures is available. The analysis is limited by the underlying theoretical assumptions that households constitute units of consumption that seek to maximize a single utility (or welfare) function given the income at their disposal.

The single welfare function assumption has been criticised as it ignores intrahousehold conflict and inequities which are often manifested in differential resource allocation to household members²². Empirical evidence from certain areas of South Asia shows that boys are favoured over girls in resources allocated to them (Behrman 1988). For example different infant mortality rates for boys and girls and sex ratios for children under ten years old from some north western states in India support the conclusion that boys are given preferential access to medical treatment and food in these states (Dyson and Moore 1983). Findings from country studies are not surprisingly contradictory,²³ Haddad and Reardon (1993) investigating household resource allocation in Burkino Faso find none and argue that evidence of household resource allocation discriminating against girls has yet to be presented for sub-Saharan Africa. Thomas (1991) using data from Brazil, Ghana and USA presents evidence that mothers and fathers invest different amounts of resources in their children. Mothers invest more in their daughters and fathers more in their sons. Whether girls health might be more adversely affected than boys is an issue that merits investigation if user charges are introduced.

Another regressive potential outcome is that differences in command over income and resources between men and women in households could mean that all children in some households suffer more than children in other households despite similar levels of household income. Evidence from a recent study using data from Kenya and Malawi, showed that women's control over income had an influence over and above the effect of income levels alone in determining a household's calorific intake (Kennedy and Peters, 1992). If the responsibility for children's health lies with women the introduction of user charges implies that women will have to find money for services that previously they could have access to without payment (although obviously not without some user

²² A. Sen (1989) proposes a model of co-operative conflict to capture a household decision making process. While it is to the advantage of all family members to cooperate with on another this cooperation coexists with conflicts over gender divisions of tasks and resources.

²³ There are a number of approaches that can be taken to determine whether gender discrimination occurs in intrahousehold allocation of resources. Physical indicators such as nutritional status, height, years of schooling are often examined to see if there are significant differences between measures for boys and girls. Adult equivalence scales are another approach where an adult good, e.g. beer is identified and econometric testing used to establish whether the extent parents will alter their expenditures on such goods varies according to the number of boys in the household.

cost). The World Bank model assumes that the flow of resources between household members will not prevent the substitution of expenditure on medical care for expenditure on other household goods when necessary. There are a number of reasons why this may not be the case.

For example in Zimbabwe, as in many other sub-Saharan African countries women make up the majority of the rural population, accounting for 60% of total agricultural employment in 1984 (Central Statistical Office of Zimbabwe, 1987).²⁴ Surveys show that some households are headed by women as men are working as migrants in other cities or areas and that other household are female headed as women are divorced or widowed (Hanmer, 1984). If men are working away from home they may not know when extra cash is needed for sudden, unexpected expenditures on drugs for sick children. Imperfect information flows between household members may have unintentional adverse effects on health status as treatments may be delayed or neglected even when there is no difference in the priorities given to child health between household members.

Other problems arise when there are differences in the perceived priority of health care expenditures between men and women in households where women have limited access to money income. Men may be less willing to substitute away from other expenditures towards health care for several reasons (including pure selfishness) so the necessary money may not be released for health care expenditures. One reason why men may accord different priority to securing health care services for family members and their children is that their contact with health care personnel is often structured in quite a different way to women's.

First, women are frequently the targets of health education campaigns. Governments consistently try to raise women's awareness of health risks and seek to change their practises in order to prevent the spread of diseases and raise health status in general. It is true that some public health campaigns target both men and women, recent campaigns aimed at preventing the spread of AIDS are a good example, but it seems probable that women will have more consistent contact with health education and health sector workers because of their responsibility for child rearing and domestic labour. Women will often have greater knowledge about health, particularly child health and may therefore want to seek treatment for children and other family members at times when symptoms or illness do not appear to necessitate it from the man's point of view.

Second, women consume health care services as non sick people. When pregnant and with young children women and their children consume preventative and

²⁴ Policies prior to independence resulted women in constituting 85% of agricultural employment.

curative health services consistently and regularly over a long period of time. They therefore have a distinct relationship to health care services and this can shape their perceptions of its need. A contributory factor to the special relationship women have with health care services is that the majority of the contact they have with the service is through a female workforce. Health care, or at least large amounts of it, is done by women to women. The vast majority of nurses, with whom health care recipients have the longest number of contact hours are women. Women's command over knowledge about health care therefore differs from men's both because there is a clear overlap between health care and other skills learnt in the home, (e.g. food preparation, cooking and hygiene) and because health care services acquired outside the home frequently mean contact with skilled women health workers from whom women, given an appropriate institutional and political environment, may more easily learn than men.²⁵

6. Household Production and Exchange.

The arguments outlined above mean that, in terms of consumer demand theory, women have different tastes for health care services than men. Theoretical approaches that assume a single utility function for the household are thus inappropriate foundations for empirical analysis. To investigate the 'taste' hypothesis further one step would be to take women's control over cash income and income generating possibilities into account when testing demand elasticities for health care services. Household data could be further disaggregated to control for different access over money income between women. This however is a static approach as households opportunity to generate income are likely to change during the course of structural adjustment programmes. It is important therefore to analyze the interaction of labour market opportunities and changes in the provision of goods consumed by the household. One way to do this is to conceptualize the household as a unit of production rather than consumption as households in developing countries invest and produce as well as consume and save (Fitzgerald 1992).

Households can meet demand for goods and services by generating money income with which they can buy them and by having command over non waged labour (often predominantly female) which produces household goods and services, typically food and domestic services such as meals, childcare, health and nursing care and other services that 'reproduce' the household. Amartya Sen

²⁵ There is evidence that girls in all girl schools perform better than in mixed schools which support the argument that the 'maleness' or 'femaleness' of an environment effects learning abilities. I know of no studies that examine the impact of health education on changes in health practise that take the learning environment into account as a factor determining its success, but obviously a clear parallel exists.

has called the different bundles of commodities that a person (or household) can acquire, given their initial endowment of land, labour and other productive resources, an exchange entitlement set (Sen 1981). He argues that a household's standard of living will depend not just on their initial endowments but also on their ability to exchange them which will be affected by market characteristics and legal, institutional and political factors.

In this context the introduction of user charges represents the withdrawal of a free good which was previously available at no direct, but some user cost to the household. There is thus an additional demand on household income which has to be met through increases in money income generation either through wage labour or by extra production from their land or other resources. Given a fixed endowment of productive resources more labour has to be allocated to waged employment or to work on land to produce this income. The incidence of the extra workload will depend on the sexual division of labour within the household and the opportunities available for increased waged work. If additional waged employment is not possible, increased work on family landholdings is implied. In Zimbabwe, where it is common for men to migrate to cities or commercial farms and businesses, much of this burden will fall on the women remaining in the Communal Lands who have responsibility for the majority of agricultural production. Furthermore the policy changes themselves may result in there being less time available for this extra work. Even when poor households are exempted from hospital or other medical charges obtaining this exemption means travelling to the nearest Social Welfare office, which is time consuming and necessitates fares for transport. If, in addition, more expensive costs in cities (including increased charges for health services) result in less money being sent home to rural areas women living in rural areas are doubly disadvantaged. Furthermore if costs deter women from going to rural clinics a vicious circle may ensue where women have to spend more time at home nursing sick children and thus have less time to spend on agricultural work. Agricultural production is thus reduced resulting in less money income generated from sale of output, which can result in malnutrition (due to decreased purchases of essential foods such as cooking oil and vegetables) which further exacerbates ill health and increases the need for health care services. Hence there is potentially a welfare loss within the family.

7. Exchange Entitlement Failures, Risk and User Charges.

Sen's application of the entitlement approach to the analysis of famines showed that a household could starve due to an economic change which meant that the commodity bundle that they were able to produce failed to command enough food for them to survive. This could happen because of adverse endowment changes, drought leads to harvest failure for example, or because

of adverse movement in exchange entitlements, food price rise or wages fall, for example (Dreze and Sen, 1989).

Introducing charges for medical services falls into the category of an adverse movement in exchange entitlements, although households may not necessarily suffer in the first instance from this policy. They may be able to meet the new demand with their existing resources or other policy changes typically associated with structural adjustment such as increases in prices paid to agricultural producers may act in their favour.²⁶ Their vulnerability is however increased because if an external shock adversely effects their endowments, the effect will be compounded by the deterioration of their exchange entitlement set. Households therefore are exposed to higher degrees of risk.

How households respond to increased risk will therefore be one determinant of the impact of introducing user charges. Where, as in most of sub-Saharan Africa, the majority of the population depend on small family operated farms for there livelihood, households are likely to be highly risk adverse. For example, failure to establish intensive, rather than extensive methods of agricultural production in sub-Saharan Africa has been attributed, at least in part, to the perceived increase in vulnerability to risk that switching away from traditional techniques incurs (Platteau, 1990). A current example of risk adversity of peasant households is occurring in Zimbabwe where, despite the good harvest of 1993, peasant farmers are reluctant to sell to the Grain Marketing Board due to the recent experience of drought and severe food shortages (Zimbabwe Herald, August 2nd, 1993). Ensuring food availability by reducing the marketed surplus seems to be a risk reducing strategy adopted by many households, which has a further rationality as high rates of inflation accompanied the drought.

Attitudes of households towards actual and perceived risk thus introduce a further dynamic into the impact of introducing charges for public goods. For while in any one year examination of a household's income and assets might show it able to pay something towards health services and school fees for example, risk adversity which can be assumed to vary inversely with income, may mean an unwillingness to pay. Wuyts (1992) gives the example of the 1984-5 famine in Sudan when at its nadir poor people, who could be described as famine victims, rather than spend their money on more food spent it in ways preserved their assets, for example feeding their animals. Risk adversity can thus imply that people will attempt to retain assets that will secure their future income even when facing the most disastrous circumstances. If the

²⁶ Increased producer prices may not represent a net gain to household income if offset by urban retrenchments or decreases in urban rural remittances.

economic situation forced a trade off between present consumption of health care services and the retention of assets that would provide future income there can be no certainty that present consumption needs would win out.

Policy recommendations for implementing user charges advise exemption for the poor, nevertheless it is worth pointing out that the poor may not be a static group and provision for their exemption from user charges means that governments may have to act very rapidly if adverse health is not to result from their implementation. Information in developing countries is costly and it can take some time for policy makers to realise the exact impact of exogenous or endogenous economic changes on their populations, especially in remote rural areas. Households may respond to adverse circumstances they face by not going to a clinic if a charge is made for its use and it may be sometime before the extent of the problem is realised and governments can respond, even if the resources exist to provide free health care facilities for more people.

Replacing policies of general subsidy by policies that 'target' poor people has been tried in several developing countries. Cornia and Stewart (1993) identify two types of error that can occur when government expenditures are targeted at poor people. Such policies can fail to meet their objectives either because they do not reach the target population or because they benefit those who are not targeted. Examining food interventions in several developing countries they found that where universal schemes had been replaced by targeted schemes²⁷ the incidence of policy failure, defined by the poor not benefiting from the scheme, increased by up to 50 per cent. Fewer failures occurred in the sense that a lower proportion of the benefits reached people outside the target group (leakages) but even this type of error was not eradicated completely. They conclude,

'...the twin objectives of covering the highest possible number of the poor while minimizing leakage, may best be achieved by clawing back some or all of the leakage through a variety of direct and indirect tax measures.'

An illustration of the increasing incidence of policy failure outlined above can be drawn from a recent studies of user fees in Zimbabwe. Cost recovery for medical services was implemented in Zimbabwe at the end of the first half of 1991. Poor people, defined by income level,²⁸ were exempt from charges. Iliff (1993) argues that data on the number and mortality of babies born before arrival (BBA babies) at the Harare Maternity Hospital support the view that

²⁷ Evidence is presented from Jamaica, Sri Lanka and Zambia.

²⁸ Z\$100 1991 increased to Z\$400 in 1992.

charges for maternity services stopped women delivering their babies in hospital. In the six quarters before charges were implemented between nine and twenty of these babies died and between 77 and 109 were admitted. In the three quarters after charges were implemented deaths rose to between 30 and 41 and admissions to between 98 and 130. It is difficult to disentangle exactly what proportion of the increase in deaths and admissions of these babies is due to the policy change and what is due to other factors such as rising HIV positivity rates and deterioration health status due to the drought. However data on HIV positivity growth rates indicate that all the increase in BBA babies mortality and admission rates cannot be attributed to this cause and if drought causes sufficient financial hardship that maternity fees are not available, policy failure has occurred as targeting has failed to reach a designated group.

Consideration of the dynamics of poverty, the extent and variation of risk faced by households and the nature and causes of the vulnerability of poor therefore provide a broader argument for the retention of free medical services given the difficulties and expense associated with targeted policies. If there exists an uncaptured ability to pay for these services, among for example relatively poor rural communities, it should be extracted in ways other than the wholesale adoption of user charges otherwise, however unintentionally, changes in health sector financing will impact adversely on the poor.

8. Conclusion.

The World Bank's proposed reforms for health sectors in developing countries contain several elements that are inconsistent with the stated goal of increased equity and efficiency. There are a number of reasons why equity may be adversely effected through the introduction of user fees in particular and efficiency is not necessarily increased through reducing the state's role in health care provision.

A competitive market is an essential pre-requisite for increasing efficiency and hence ensuring low cost health services by extending health service supply to the private sector. In developing countries small market size, economies of scale and scope mean that markets are more likely to be monopolistic or oligopolistic than competitive. Given the small number of health service suppliers price elasticity of demand for health care services must be considered if governments aim to keep the cost of health care low. If price inelastic health care is disbursed to the private sector the opportunity for high mark ups over marginal cost means that a high user cost health care system will be the result. Market failure is also likely given that private sector supplied health care would be funded through insurance schemes. So, the

combination of highly concentrated markets and a tendency for the market to fail to produce competitive solutions implies that health services prices are likely to rise rather than fall in comparison to the prices of other goods and services. Much then rests on the governments capacity to intervene to ensure competitive pricing, a practise which is fraught with difficulty given that the nature of health services means that it is particularly difficult to establish what the competitive price should be. An additional problem is that once private suppliers operate alongside a public health sector, it can generate negative externalities and effective subsidies are often given to the private sector as they benefit from factor inputs (especially skilled personnel) whose costs are subsidised by public sector investment. It is argued here that governments should tax private sector health suppliers on the basis of their turnover to correct for the presence of subsidies and negative externalities.

Turning to equity issues, if the poor are to be exempted from user charges structural reforms in existing health care delivery systems need to be undertaken and complementary policy interventions made in education and social welfare. Increases in government expenditures are thus implied and these are highly unlikely to be possible in an economic environment where governments are trying to reduce the size of the budget deficit. In the absence of increased government expenditure, exemptions are likely to be implemented in a haphazard and partial manner and the poor's access to health service will be adversely effected. Furthermore there is no guarantee that the revenues accruing from cost recovery will outweigh the administrative costs of implementing this policy, implying that funds available for public health in general and the poor in particular will not increase.

As the construction of an effective social 'safety net' is far from guaranteed by the proposed reforms further equity concerns remain when households face increased demands on their disposable incomes due to user charges for health services. How they respond to these demands depends, at least in part, on their attitude to and perceptions of risk. It is argued that, in the case of semi subsistence farmers, households are likely to be highly risk adverse and that risk adversity can be expected to vary inversely with income. When people place high priority on preserving their assets, (eg. productive land and cattle) if an adverse economic situation forces a trade off between current consumption of health services and future consumption made possible by asset retention, there can be no guarantee that current consumption needs will win out.

There are reasons why the incidence of inequity resulting from user charges is likely to be gendered, as their burden will fall disproportionately on women. This can occur in households where men migrate when perceived necessary health expenditures between household members are the same or can be due to

differences in perceptions of necessary health expenditures.

In migrant households the unexpected nature of many health care expenditures means that women may in practise have to generate the extra income necessary to meet these expenses. Furthermore if changes in health care financing means more time away from the farm to obtain exemption certificates, future agricultural production can be reduced with commensurate reductions in family welfare implicit.

Differences in the perceived necessity of health expenditures will occur, it is argued, as women are likely to give greater priority to health expenditures than men as their contact with health services is structured in a way that means they are likely to have more knowledge about health needs, particularly of children. Women's lack of control over and access to disposable income means that if spending on health is disputed within households necessary health care may not be forthcoming. If periods of ill health of household members (children in particular) are extended or become chronic due to lack of access to health services, given the sexual division of labour within the household, women's workload is likely to increase as they will have to spend more time caring for the sick.

The points above have implications for any assessment of the impact of user charges on the demand for health care services by estimating the price elasticity of demand for medical services. When the level of household income is taken into account it is shown that prices are an important determinant of the demand for medical care and that elasticities become larger as income becomes lower.

It is also necessary to take differences in women's disposable cash income into account as well as overall differences in household income when estimating demand elasticities. Women's structural relationship to health care services and their providers means they are likely to exhibit different 'tastes' for health care services than men. Assumptions of exogenously given preferences for goods and services, captured by 'taste' in economic theories of consumer demand are therefore inappropriate underlying assumptions for any econometric testing. It is argued here that 'taste' for health service expenditure is an endogenous variable as it will reflect aspects of a consumer's knowledge of, control over and access to health services and can thus be expected to vary systematically with household characteristics, specifically women's education and their access and control over cash income.

Estimating price elasticities of demand for health care services can, when households are disaggregated to take different levels of income in general and women's command over household income and resources specifically, into account provides useful information about the likely impact of user charges on health

status in developing countries. It is argued however that this approach is limited as it consider the household as solely a unit of consumption. In developing countries it is particularly important to consider the impact of household production on the allocation of resources to its members.

Following Sen's entitlement approach it is shown how the introduction of user charges may effect the household. A households endowment of land, labour and other productive resources give it command over a number of goods and services that lead to a given standard of living. It is argued that if charge are introduced for health care services that have previously been provided free, either opportunities for waged work have to increase or households have to use more non wage labour hours to get the same standard of living. If the non wage labour hours are increased out of women's labour time, their work load increases disproportionately to the rest of the household's and they bear the full cost of the new policy. If it is not possible to increase household labour to meet this new demand on its resources a lower standard of living ensues as people have to work longer to attain the same standard of living they had when health services were provided at no user charge.

It is concluded that policy changes that adversely effect exchange entitlements increase vulnerability of the poor in developing countries and have specific gender implications. Although exemption from user charges for the poor is advocated by the Bank the poor are not a static group. Economic changes, including those associated with structural adjustment programmes, can adversely effect household endowments, which when combined with deteriorations in exchange entitlements can tip more people into the category of 'poor'. Public provision of free health care services is therefore important to minimize potential increases in vulnerability of large proportions of the population in developing countries.

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