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INDIGENCE AND ACCESS TO HEALTH CARE IN SUB-SAHARAN AFRICA

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SUMMARY

Access to health care services for the poor and indigent is hampered by current policies of health care financing in sub-Saharan Africa. This paper reviews the issue as it is discussed in the international literature. No real strategies seem to exist for covering the health care of the indigent. Frequently, definitions of poverty and indigence are imprecise, the assessment of indigence is difficult for conceptual and technical reasons, and, therefore, the actual extent of indigence in Africa is not well known. Explicit policies rarely exist, and systematic evaluation of experiences is scarce. Results in terms of adequately identifying the indigent, and of mechanisms to improve indigents' access to health care, are rather deceiving. Policies to reduce poverty, and improve indigents' access to health care, seem to pursue strategies of depoliticizing the issue of social injustice and inequities. The problem is treated in a 'technical' manner, identifying and implementing 'operational' measures of social assistance. This approach, however, cannot resolve the problem of social exclusion, and, consequently, the problem of excluding large parts of African populations from modern health care. Therefore, this approach has to be integrated into a more 'political' approach which is interested in the process of impoverishment, and which addresses the macro-economic and social causes of poverty and inequity. Copyright © 1999 John Wiley & Sons, Ltd.

KEY WORDS: Indigents; health care financing; poverty and access to health care services; developing countries; sub-Saharan Africa

INTRODUCTION

Health care financing policies employing direct payments by users—called 'cost recovery', 'cost sharing' or 'the Bamako initiative'—have been adopted in most sub-Saharan African countries. For years, the debate has been fierce over the effects of these policies in terms of utilization of, and access to, health care services by the indigent and vulnerable groups. The debate has been fuelled by

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equivocal and sometimes deceptive results of user fee schemes, although they have always tried, or at least have called for, protecting the poor and those in greatest need from the negative effects of direct payments. The discussion raises questions such as: Who are the poor, or indigent? How are they identified? How many are they? Do they have access to health care services? How many poor and indigent use these services? Are mechanisms of solidarity available that protect the poor? What approaches are promising and should be further explored? The general question asked—particularly in these times of growing neo-liberal thinking in health care—is how to reconcile the objectives of efficiency and equity in the financing, production and distribution of health care.

The objectives of this paper, based on the results of a literature review, are (1) to identify ways of how the question 'how to care for the poor?' is tackled, (2) to analyse the mechanisms put in place to solve the problem, and (3) to analyse new options regarding the issue.*

Two different trends can be observed in the international literature. They ask two fundamentally different questions and, thus, represent two completely different conceptual approaches to the problem. The first one asks how the phenomenon of indigence could be measured, and how access to health care could be eased. Thus, it reduces the problem of indigence, and that of accessibility to health care, to technical aspects, such as how to identify the concerned individuals, and how to best target services. The second one, in contrast, asks how to fight poverty and inequalities, and how to promote health this way. It is more interested in the definition of poverty and indigence, in their economic and social causes, and in exploring interventions that could sustainably reduce these inequalities.

The paper is divided into three parts, following the three major issues identified by the review. First, the notions of poverty and indigence are defined. The scope and extent of these phenomena as well as technical aspects of their assessment are examined. The practical problem of identifying the indigent is look at more closely. The second part of the paper presents and discusses different financing mechanisms that address the health care of the indigent, such as exemption from payment and differentiation of prices. Their respective effects on equity as well as on the utilization of health care services by the indigent are examined. The third part of the paper tries to identify promising options to be further explored and implemented to improve access to health care services of the indigent. Special regard is given to perspectives and relevance of solidarity mechanisms. These should be considered as important components of actual strategies attempting to reform health care financing. Concluding remarks critically discuss, and contrast, the two approaches of handling the issue 'technically' or more 'politically'.

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INDIGENCE AND ITS ASSESSMENT

The availability of, and geographical access to, health care services, particularly in rural areas, are rather low in sub-Saharan Africa. In general, utilization of services is very low, too. In many countries that employ user fee schemes, use rates rarely attain 0.5 new cases or more per inhabitant per year (World Bank, 1994; CIE, 1993; Tchicaya, 1994). There is little doubt that the status of indigents is the most difficult one with respect to paying for health care. Any social policy that wants to address successfully this situation, therefore, first has to define what is meant by indigence, determine the criteria for identification (who is eligible?), and decide on the mode of assigning indigence status to someone (who decides, and by what process?).

What are poverty and indigence

Indigence can be defined using either a micro-economic or a macro-economic approach. Generally speaking, the micro-economic approach attempts to determine the individuals, families or households that are indigent or poor within a given population, whereas the macro-economic approach tries to define poverty on a higher level, such as regions or states, mostly for the purpose of intra- or international comparison.

The micro-economic approach

The concept of indigence is a complex one, and it covers, at least and inter-dependently, the dimensions of poverty and social exclusion. In consequence, poverty has to be distinguished from indigence, even though these two notions embrace the same reality: that of deprivation. However, the distinction between poverty and indigence seems particularly important for countries where the majority of people are poor.

Theoretically, it is difficult to distinguish the two concepts, since there is no direct measurement available. It is a problem to determine a threshold for both phenomena. In practice, it comes to the determination of thresholds of income, if the classical statistical approach based on income measurement is adopted (Salama and Valier, 1994), or to the use of scores, if the indirect approach, looking at living conditions and the ownership of certain goods, is applied (Dickes, 1994). Poverty can be defined as incomes lying below a certain 'poverty line'. Extreme, or absolute poverty is present, if incomes are below the 'line of indigence'. The indigent, thus, could be considered the 'poorest of the poor'. In its 1990 report, the World Bank uses poverty lines of 370 $US per person per year indicating poverty, and of 275 $US indicating indigence (absolute poverty). Another threshold given by World Bank considers those being poor, have less than 1 $US for their daily living (Brisset, 1996). The Organization for Economic Cooperation and Development (OECD) does not define poverty by using absolute figures, but uses an approach that seems to better reflect realities of a given country. Poverty exists, if the available income is below a certain percentage of the average annual income per capita in the respective country: a

single person is considered poor if its income is less than 66.6 per cent of this average annual income per capita. The respective thresholds of poverty are 100 per cent for a two-person household and 145 per cent for a four-person household. Hence, poverty is defined in relation to the size of the family or household.

In the field of health care, sustained incapacity to pay for minimum health care indicates indigence. Because of the particularities of this sector, some authors complemented the notion of indigence with that of exclusion from health care (Sall and Galland, 1991; Galland, 1994; Galland *et al*., 1994; De la Roque and Galland, 1995). The concept of exclusion includes all situations in which any person has difficulty paying for health care for various reasons, be it non-availability of cash at the moment of illness, be it irregularity of income during the year, etc. These conditions not only affect indigents, but also individuals or families that are not indigent. The latter are—although not being indigent—excluded from benefiting from health care for economic or financial reasons, either permanently or temporarily.

The macro-economic approach

Since 1995, the World Bank has proposed a new analytical tool to measure poverty of countries at the international level. This measurement consists of a combination of three criteria: the 'natural capital', the level of industrial capacity, and the human resources available. Using this method, countries can be classified in a quite different manner than by relying on estimates of national income. The United States Development Programme (UNDP) uses, and further develops, another method that combines the level of basic education, the average life expectancy and the average income per capita of a country: the human development index (HDI). This composite indicator is increasingly used to measure the level of development of any country (cf. Human development report, UNDP, 1996). Recently, Perrot and Carrin (1996) developed an index of the health status of populations. This composite indicator brings together four factors that could positively influence the health status of entire populations. These are: child immunization, access to health care, primary school education of girls, and access to safe water. This indicator is thought to serve as an aid to channel development assistance, and could help to bring about more action oriented health programmes.

However, the debate on the definition and causes of indigence is often pushed aside by a more 'practical', or 'operational', discussion on how to measure the phenomenon, and on how to identify poor and indigent persons. This latter approach illustrates the conceptual understanding of those who put first priority on measures of the need for social assistance, i.e. 'technical', individualized solutions to a general social problem.

Scope and extent of indigence

The scope and extent of indigence vary amongst African countries and estimates of their degree depend heavily on the method of measurement. Assessment

techniques are not standardized and use, as seen above, a wide range of variables including property, available financial resources, existence of salaried work, etc. These variables are never neutral, and the assessment of resources and expenditures is particularly difficult in societies where the subsistence economy and the informal sector still predominate. Indigence may be measured on the individual or on the household/family level. Income per household tends to produce, in certain circumstances, the maximum number of poor in a country. In contrast, income per person—equivalent to absolute poverty—tends to reflect the minimum number of poor. Both measures could be important for projections of any social policy addressing poverty and indigence.

Figures on extent and scope of indigence are scarce in sub-Saharan Africa. Overall estimations indicate, however, that the extent of indigence may be greater than suggested by some local studies of limited scale (see below). In 1985, the percentage of the overall population living below the absolute poverty line has been estimated for countries such as Burundi, Malawi, Central African Republic, Rwanda and Zaïre to lie between 85 per cent and 91 per cent in rural areas, and between 25 per cent and 55 per cent in urban areas, respectively (World Bank, 1994). In the Pahou district in Benin, a socio-economic study estimated 25 per cent of the population to be indigent (Alihonou and Kessou, 1994).

Other studies carried out on the utilization of health care services in Benin, Guinea, Niger, Mali, Rwanda and Togo suggest that between 5 per cent and 15 per cent of the rural population were indigent (GTZ, 1991; Willis and Leighton, 1995; Diop *et al*., 1995). Sall and Galland (1991) estimated that only 6 per cent of the population of certain regions in Rwanda and 4 per cent in Guinea are permanently excluded from the use of health care services for economic reasons. The figures given for those who are temporarily excluded from health care are 33.5 per cent for Rwanda and 39 per cent for Guinea. The results of these latter studies are, however, of limited significance, since the study populations included only 96 and 300 subjects, respectively, and since the sample included only persons who were present at health centres during the study period.

Cross-sectional studies that try to measure the impact of user fees on service utilization may provide data on the level of indigence within a given population, but they exhibit some weaknesses. It is, unfortunately, difficult to find criteria that accurately reflect prevailing living conditions. Household incomes and the expenditure per person for health care seem to be acceptable indicators of living conditions. However, this only holds true as long as these incomes account for self-produced goods which are frequently of great importance for the world's poor (and who are largely excluded from the monetary circuit). Neither of these indicators includes some important dimensions of life such as health status, life expectancy, educational level or access to public goods and resources commonly owned by all members of a society. Moreover, measurement of thresholds may indicate the number of indigents, but it is neither suited to analysis of poverty and indigence, nor can it describe the process of impoverishment.

In a study in Indonesia, Gertler *et al*. (1991) proposed to determine the population that should be protected from the negative effects of direct payments

for health care by analysing their ability and willingness to pay. He suggested that if prices exceeded 5 per cent of the household's non-food expenditures, families would not be willing, and, in consequence, not be able to pay for health care services. This method, although seductive from a theoretical point of view, has some practical limitations. It is debatable if the ability to pay of households can be determined by evaluating their willingness to pay for health care. Willingness to pay is a function of value judgements, including cultural factors and perceived seriousness of the illness. Even the most destitute people are ready to pay for treatment of life-threatening illnesses, if only they can find the necessary means (even if they may have to sell their property). Moreover, the method is rather demanding with regard to statistical and econometric competence, which is rare in developing countries. This is particularly true for assessing food expenditures of families to calculate the unconstrained part of the household's income.

Table 1. Extent of poverty in some African countries.

	Percentage of population living below the absolute poverty line, 1985	
Country	Urban	Rural
Benin	—	65
Botswana	40	55
Burkina Faso	—	—
Burundi	55	85
Cameroon	15	40
Côte d'Ivoire	30	26
Ethiopia	60	65
Ghana	59	37
Kenya	10	55
Lesotho	50	55
Liberia	—	23
Madagascar	50	50
Malawi	25	85
Mali	27	48
Mauritius	12	12
Mozambique	18	36
Niger	—	35
Central African Republic	—	91
Rwanda	30	90
Somalia	40	70
Chad	30	56
Togo	42	—
Zaïre	—	80
Zambia	25	—
Total Africa	36	57

Source: World Bank (1994): Better health in Africa. Washington: World Bank.

Approaches and criteria to identify indigents

A multitude of criteria have been proposed to identify indigents, including persons without employment or regular income, single parent families, handicapped persons, type of housing, etc. Income remains, however, the most employed criterion. In contrast, only few countries or health projects define this criterion accurately. Zimbabwe alone has precise income levels which entitle indigents to benefit from schemes (Nolan and Turbat, 1995; Hecht *et al.*, 1995). Other criteria, such as type of housing, land area cultivated, number of livestock owned, are used mostly for research purposes where health service utilization by the poor and indigents is studied retrospectively (Carrin and Vereecke, 1993).

Approaches and criteria employed to identify indigents heavily depend on how it is intended to fight social inequalities regarding access to health care. It is therefore necessary to determine specific target populations. Glewwe and Van der Gaag (1988) distinguish two types of targeting: (1) targeting by attributes and (2) direct targeting.

Targeting by attributes grants benefits to those who have the general attributes of the target population or target group. There exist various forms of targeting by attributes that have the following contents (Leighton and Diop, 1995; Shaw and Griffin, 1995; World Bank, 1994). (A) Geographical targeting: health care facilities that are situated in specific geographical regions (e.g. in rural or periurban areas) are free of charge for its users, or are subsidized. (B) Demographic and social targeting: personal attributes, such as age, gender, professional situation (state employee, military personnel, student, etc.), signify eligibility for using special services, or for benefiting from exemption schemes. (C) Targeting by condition or health status: the specific health status of individuals is used to decide on (free) admission to special services (pregnancy, malnutrition, handicaps, sexually transmitted diseases, chronic diseases, such as leprosy or tuberculosis, etc.). (D) Self-selection: the general characteristics of services (distance, waiting time, perceived quality of care, type of services offered, general appearance of locality, etc.), or social stigmatization may also be quite efficacious to discourage people not belonging to the target group.

Direct targeting identifies, case by case, those persons or households that belong to the defined target group, and thus are eligible to receive benefits. This approach requires a prior and specific analysis of people's living conditions, a means testing, which is done largely on the basis of available incomes. Its objective is, in general, to exempt totally or partially those who are unable to pay for health care, or who face financial difficulties because of the payment. Means testing can also be used for rationing free services, such as vaccinations or delivery of contraceptives, so that indigents can benefit most from them. Since means testing is based on the ability to pay, it may promote the objective of cost recovery as well as that of equity (Willis and Leighton, 1995). The great advantage of means testing is, that it directly channels interventions and benefits towards the indigent, whereas targeting by attributes, e.g. geographical or demographic targeting, may also benefit the non-poor.

Who should identify the indigent?

One of the most important and debated questions is 'who is most qualified and should take the responsibility to identify the indigents, and decide on their eligibility to receive benefits?'. Is it the public administration, is it the health personnel, is it some representative of the community, or is it any other institution or person?

There are two ways to answer the question. On one hand, there is the logic of centralism, which is present in most public health care services on the African continent, and which confers this task to the public administration or the health personnel, as in Rwanda, Senegal or Zimbabwe (Nolan and Turbat, 1995; Carrin *et al.*, 1993, and others). On the other hand, there is the logic of decentralization, which is present in countries that subscribe to the ideas of the Bamako Initiative. These countries tend to concede the power of identification and decision to the representative bodies of the community (health committees, etc.), as is done in Guinea, Benin or Mali. But most experiences with this approach are only in small scale projects or programmes.

In both instances, however, the identification process is not immune to nepotism and 'embezzlement'. Indigents are generally in a weak position, and, therefore, they often may be obliged to recompense authorities, local elite, health personnel or managers of social assistance programmes.

Accessibility and utilization of health care services by the indigent

Accessibility and utilization of health care services by the indigent and poor have been subject to numerous studies in the past 15 years. The first generation of studies, mainly analysed the impact of user fees on accessibility and utilization of services, taking into account only the roles of prices and incomes. The second generation of studies tried to demonstrate that the negative impact of user fees on utilization and accessibility could be reduced, and even be negated, by improving quality of care.

As for the first generation of studies, access to health care had been only analysed as a function of supply and demand for health care services. Thus, the issue of accessibility and utilization of services had to be reduced to the respective effect of prices of services, and to that of levels of income. The first empirical studies, done in Malaysia (Heller, 1982) and in the Philippines (Akin *et al.*, 1986), found no negative, statistically significant effect of health care prices on demand, even for the poor segments of the population. This position had been supported by the World Bank for quite some time (Akin *et al.*, 1987). Several studies that had been carried out in the following years in Africa and elsewhere, mostly showed a negative effect of prices on health care utilization, particularly for the poorest (Gertler *et al.*, 1987, 1986; Gertler and Van der Gaag, 1990, and others). In Ghana, Waddington and Enyimayew (1989, 1990) found that price increases affected, in particular, segments of the population whose social situation and health status were the most precarious, the old and young children. In Swaziland, a price increase in public health services between

300 per cent and 500 per cent was followed by a drop of utilization rates of 40 per cent within one year, affecting more the destitute part of the population (Yoder, 1989). In Burkina Faso, a study on price elasticity of demand in the context of the introduction of user fees showed that demand dropped as a function of incomes and age. The demand for health care was elastic for the three lowest income quartiles, particularly for the first quartile (−1.44) (Sauerborn *et al.*, 1994). In Kenya, poor households utilized public health facilities that applied user fee schemes less than rich households (Mbugua *et al.*, 1995). The results of these and other studies (De Bethune *et al.*, 1989; Gertler and Van der Gaag, 1990) supported the hypothesis that the utilization of health care is sensitive to prices applied in public health services (Fournier and Haddad, 1995). A recent study carried out in Ogun State, Nigeria, still finds, however, that there is no significant difference of price elasticity of demand between different groups of revenue (Akin *et al.*, 1995).

As for the second generation of studies, numerous authors (Lavy and Quigley, 1993; Lavy and Germain, 1994; Litvack and Bodart, 1993; Akin *et al.*, 1995) suggest that improvements in the quality of care may compensate, at least partially, the negative effects of an introduction or increase of user fees. Litvack and Bodart, in a study carried out in five health facilities in Cameroon, found that the probability of health service utilization increased relatively more for the poorest quintile of the population than that for the rest of the population, particularly the rich.

Generally speaking, the factors of price and income are crucial to accessibility of services, in particular for the indigent. However, these are not the only factors, and other variables—easily classified under terms such as quality of care, or perception of services—may sometimes be even more important.

FINANCING THE HEALTH CARE OF THE INDIGENT

Since the abandoning of financing policies to assure equal and free health care for all citizens through tax financed public health services, and since direct payments have been applied to patients in most African countries, accessibility of services has been made more difficult for the indigent. The question is 'how to protect indigents from the negative effects of these policies?'. An (old) discussion on solidarity and its practical application in the field of health care is back on the agenda. However, it has to be noted that systems of 'free' public health care services rarely have been free in reality (because of under-the-table payments and other reasons), and never guaranteed equal access to health care for the poor and indigent. The distribution of services in sub-Saharan Africa, favouring urban areas and cities, is unequal and regressive (Akin *et al.*, 1987, 1995; Dor and Van der Gaag, 1993; Gertler *et al.*, 1987; World Bank, 1993, and others). So far, few countries and development projects have put in place and evaluated financing mechanisms that ease the indigents' access to health care services.

Financing mechanisms of health care of the indigent

The problem of facilitating access to health care for the indigent can be handled on two levels. It is either the state who tries to protect the poor and indigent in a centralized manner, or it is communities which decide on, and take charge of measures that should protect the indigent.

On the national level, equalization measures have been introduced by applying different prices to account for the purchasing power in different regions, e.g. in Ghana (Galland *et al*., 1994). In some countries, exemption schemes for indigents have been put in place for secondary and tertiary care. Other countries, such as Ethiopia, Rwanda, and Togo have installed systems of official certificates exempting indigents from payment for public health services. Other countries apply various forms of targeting by attributes, exempting school-age children, prisoners, certain chronically ill persons or the mentally ill (GTZ, 1991; Nolan and Turbat, 1995).

On the community level, numerous financing schemes applying 'cost recovery' (user fees) try to exempt the poorest from payments. In countries, such as Mali, Senegal, Sierra Leone, Togo and Zaïre, it is the community which decides on who should be exempted. This may include the poorest of the poor, widows, the blind, and orphans. In other countries, indigents may pay in kind, are given credit, or may pay less than the normal price. Sometimes it is the municipality or districts, represented by their local health committees, that may pay in the place of indigents, as in Benin or Guinea (Carrin *et al*., 1993; Galland *et al*., 1994; Shaw and Griffin, 1995; Nolan and Turbat, 1995).

The various mechanisms that are applied to facilitate indigents' access to health care, can be classified into three categories: exemption from payment, differentiation of prices, and subsidizing specific services and activities that address specific target groups.

Exemption schemes targeting the indigent have been officially introduced by numerous African countries (Tables 2 and 3). However, these schemes often do not give sufficient practical direction on how they should be implemented. Sometimes, the procedures may be humiliating, or arbitrary. Although it seems to be most suitable to exempt those persons or households that exhibit a permanent inability to pay, it comes back to the issues of how to define the indigent, of how to design a well-accepted formula, and of how to apply the proposed procedures efficiently. The limited managerial capacity of the institutions in charge of these tasks, makes it even more difficult to reach the real indigent, or the defined target groups.

A study carried out in three Kenyan districts revealed that 11 per cent to 34 per cent of outpatients attending health centres had been exempted (Huber, 1993). The pattern of service utilization of young children, who had been exempted, was about the same as that of the rest of the population, suggesting that they had not been effectively protected from the deterrent effect of payment.

In principle, there are two types of exemption policies. The first is linked to the professional status of the eligible persons, e.g. civil servants, or military

Table 2. Payment of health services by the poor in French speaking African countries.

Country	Exemption of the poor from tariffs?	How it is defined	Who decides	Percentage of exempted
Benin	Yes	Indigent	Local administration	About 2%
Burkina Faso	No			
Burundi	Yes	Indigent	Local administrator	Rather low
Cameroon	No national system; but those who cannot pay are normally treated	Not clear	Various	Unknown
Central African Republic	No national system; local variations	Various	Various	Unknown
Congo	Yes	Inability to pay	Local health committee	Unknown
Côte d'Ivoire	Formal system not yet developed			
Guinea	No			
Madagascar	Not clear	Not clear		
Mali	Yes	Indigent Inability to pay	Health committee	More than 30%–50% in some hospitals (not always because of poverty)
Mauritania	Yes	Indigent	Committee of health centre	Very low
Niger	Yes	Certificate of inability to pay	Administrator	Unknown
Rwanda	Yes, local variations	Indigent	Administrator	Unknown
Senegal	Yes, local variations	Indigent	Administrator	Unknown
Togo	No national system			
Zaïre	Yes, various in districts	Indigent, the young, the old	Unknown	Unknown

Source: Nolan and Turbat (1995).

personnel. The issue of according (or abandoning) free health care for state employees is a quite sensitive one for African governments.* This practice, however, is subject to controversy, and rather perceived as a privilege than an

*International labour laws require any public and private employer to offer social protection, including health services, to their employees and dependants.

Table 3. Payment of health care services by the poor in English and Portuguese speaking African countries.

Country	Exemption of the poor from tariffs?	How it is defined	Who decides	Percentage of exempted
Angola	Not yet decided			
Botswana	Only minimal tariffs			
Ethiopia	National policy exempting the poor	Various criteria, entitling to a certificate of 'free care'	District health officers	5% of outpatients and 25%–35% of inpatients
Gambia	National policy, but no formal criteria	Inability to pay	Personnel of health centre	Exemptions of patients 'very rare'
Ghana	National policy, but no formal criteria		Personnel of health centre	'Not very much'
Guinea-Bissau	No explicit national policy; in practice various		Local management committee	
Equatorial Guinea	No explicit national policy; various in different projects	Various	Local management committee	Unknown
Kenya	National policy	Inability to pay	Representatives of the community and administrators	Unknown
Lesotho	National policy	'Poor without means'	Village chief or health personnel	Very little
Malawi	Not yet decided			
Mozambique	National policy	'Too poor to be able to pay'	Not clear	Unknown
Namibia	Unknown			
Nigeria	No formal national system, various	Various	Community or personnel of health centre	Little
Sao Tome and Principe	Project of national policy allowing for exemptions	Not clear	Community	Unknown
Sierra Leone	No formal national system	Various	Community	Little
Sudan	Not clear			
Swaziland	National policy		Personnel of health centre	Little
Tanzania	Not yet decided			
Uganda	No national policy, various	Various	Community	
Zambia	No national policy, various	Various	Community	Unknown
Zimbabwe	National policy with formal criteria	Those below a certain threshold of revenue	Local officers, personnel of health centre	Most of the unemployed rural and urban population

Source: Nolan and Turbat (1995).

exemption by the majority of the population, which is mostly poor and has to pay for services.

The second type of policy is one linked to the socio-economic or health status of the eligible, e.g. indigents, handicapped, under-fives, chronically ill, etc. The following gives some examples: In Lesotho, persons are exempted who have neither incomes, nor own land, livestock, or similar assets. These individuals receive an official certificate of indigence from village chiefs, or from health personnel. In the 1980s, a system in which village chiefs were responsible for distribution of vouchers for health care services to the poor seemed to yield good results in Ethiopia (Akin *et al*., 1987). Some hospitals and dispensaries in Tanzania, particularly those belonging to missions, accept payment in kind, or non-remunerated temporary work for the health facility. Ninety per cent of those hospitals, and 20 per cent of dispensaries exempt handicapped people, 36 per cent and 30 per cent, respectively, exempt under-fives, and 23 per cent and 5 per cent, respectively, exempt chronically ill persons (Mujinja and Mabala, 1992). In Zimbabwe, which is one of the few African countries that apply a well-established social policy, the central government has fixed thresholds of monthly incomes for total or partial exemption from payments (Loewenson *et al*., 1991; Hecht *et al*., 1995). However, the intended equity objective has only partially been attained by this policy. Programmes targeting high risk groups had little impact on the poor, or on those populations living in remote and isolated regions.

It can be concluded that effective and efficient implementation of exemption policies faces major problems and may endanger their applicability, not only in times of severe public budget constraints. First, there is the issue of identifying the indigent. Second, it seems difficult to correctly apply criteria—the results of targeting do not always show the expected results in reality, but often prove to leave inequalities. Third, the validity of thresholds erodes over time because of inflation. Last, the economic situation of many countries continues to deteriorate.

Differentiation of prices is the second type of financing mechanism that may improve access to health care services for indigents and vulnerable groups. Price differentiation consists, for instance, of lower prices for the poor or indigent, and of higher prices for the richer part of the population. Price differentiation may be based on demographic factors (age, gender), geographical factors (place of residence), socio-economic status (e.g. incomes), on factors concerning health status (contagious diseases, etc.), or a mixture of these. In most instances, age is the discretionary factor, followed by level of income. This mechanism has rarely been developed in association with the Bamako Initiative and with the promotion of the 'minimum package of care'. Because of the difficulties in assessing the patients' incomes, and because of the priority given to maternal and child health, the criteria of age and gender are most frequently applied.

According to the social or health objective pursued, different modes of price differentiation are put in place. Differentiation of prices by level of income introduces a sort of solidarity amongst patients. In this way, care for

indigents is somehow 'subsidized' by the richer clientele. This mode is quite common in public hospitals. However, it exhibits the same problems as exemption policies based on income levels, and health personnel are rarely in the position to evaluate the person's status concerning indigence. Differentiation of prices by age mostly concerns under-fives and the elderly. These groups are considered in need of a sort of inter-generations solidarity. Examples for this sort of price differentiation are given by Mariko (1991) for the Mopti region in Mali, and by Carrin *et al.* (1993) for the urban area of Pikine in Senegal. Differentiation of prices by gender is used mainly to favour the uptake of services addressing women during pregnancy, childbirth, or for the purposes of contraception. Differentiation of prices by type of activity is used to encourage a minimal uptake of services that are considered essential for the benefit of the total population. These activities or services normally exhibit a high level of externalities, and/or the general population lacks information on their benefits. Vaccination against contagious diseases is a typical example for this kind of service. In the district of Dolisie in Congo/Brazzaville, the price for treatment of tuberculosis is cross-subsidized by higher prices demanded for other, generally more benign, diseases. It represents only 4 per cent of the costs of necessary drugs for a complete treatment (Tchicaya, 1994).

Some authors (e.g. Dumoulin and Kaddar, 1993) suggest that the 'best' type of price differentiation to protect the poor is that which considers actual levels of purchasing power. This could be done indirectly by geographical price differentiation. In areas where large proportions of the population are poor or indigent, prices for health services can be maintained at a low level. Prices in relatively rich areas could be set higher, if combined with procedures of direct targeting of the indigent (either done by health personnel or by village chiefs). It has, nevertheless, to be kept in mind that in some cases even very low prices could not be paid by some persons. In these circumstances, total exemption from payment, or another mechanism of solidarity is necessary.

Differentiation of prices is difficult to design and to implement. Prerequisites are good managerial capacity and continuous flow of information. In order to prevent nepotism, it has to be strictly respected by authorities, health personnel and those who use and apply rules and criteria. Unfortunately, this is not always the case in public health services.

Subsidies of services or specific activities are strongly recommended for activities that yield a high level of externalities, such as child immunization, treatment of tuberculosis, sexually transmitted diseases, etc. (see above). Subsidies could help to deliver these services for free, or at a very low price, to the indigent who are often most in need of these services. This mechanism requires a strict respect of set health priorities, and allocation of resources towards these services. This is, unfortunately, not always the case in sub-Saharan Africa. Most subsidies are still spent, in most countries, for (urban) health facilities providing secondary and tertiary curative care, benefiting the richer segments of society. However, subsidies of specific activities are not necessarily targeted to the indigent.

Equity of financing mechanisms

Implementing financing mechanisms that cover the costs of health care for the indigent means striving for more equity. However, the concept of equity is frequently ill defined and open to various interpretations and value judgements. Its measurement requires certain criteria that are based on the underlying concept of social justice (Mooney, 1983; Carrin *et al*., 1993; Kaddar and Flori, 1997; Tchicaya, 1997). Two concepts of equity prevail in the literature: equity as equality, and equity as inequality. The first is a strictly egalitarian concept of equity and social justice. The second is based on the principle of difference (Rawls, 1987). This principle claims that existing inequalities should be to the advantage of the most disadvantaged members of society.

Regarding the field of health care and the philosophy of Primary Health Care (PHC)—equity is a key element of PHC!—these two concepts of equity may match the notions of 'horizontal' and 'vertical' equity. Horizontal equity means equal treatment of identical health care needs (e.g. assuring that all women in labour that need a caesarean section for medical reasons, will get this treatment). In theory, horizontal equity only needs a sound technical decision to assure that identified needs are identical. Vertical equity, in contrast, means unequal treatment for different needs. Decisions concerning vertical equity require value judgements regarding to what extent different needs should be treated differently (unequally). What resources for what health care needs? Should, for instance, resources go into child vaccination programmes, or to secondary care? In practice, it is quite difficult to identify people with identical health care needs, and to decide on who requires society's support to cover her or his needs (Green, 1993). Moreover, access to health care by the indigent not only depends on required payments; it also depends on geographical, organizational and cultural accessibility of services. Establishing a system of free health care does not necessarily assure that the poor and indigent use the services offered, particularly if transport is long and costly, and other directed costs of health care are high (e.g. loss of income).

A pilot project carried out in Niger revealed some divergence concerning the achievement of more equity. Under the introduction of direct payments, and the concurrent improvement of quality of care, rates of free health care given to patients dropped substantially (in two health centres tested, exemption rates dropped from 100 per cent to 44 per cent, and from 90 per cent to 29 per cent, respectively). However, these declines concerned the non-poor and the poor to the same extent (Willis and Leighton, 1995). A reason could be that most persons—even the poor and indigent—tend to avoid situations where they have to officially explain their economic situation, knowing that their request for exemption could be rejected (Wouters and Kouzis, 1994). Another study concerning public health facilities in Senegal, Burkina Faso and Niger, found that only 12 per cent, 25 per cent and 27 per cent of exemptions from payment, respectively, had been accorded to the poor, whereas 88 per cent, 75 per cent and 73 per cent of exemptions had been granted to the non-poor (Leighton and Diop, 1995). In cases where the same organization is both responsible for the

delivery of indigence certificates (exemptions) and for the financial viability of a health facility, the result may be an under-identification of the indigent. This was observed in an Ethiopian example, where local health associations had both responsibilities (Levine *et al.*, 1992).

Frequently, the application of exemption schemes seems to yield inequitable and inefficient results, since the application of the scheme is too often based on nepotism and the non-respect of health care priorities (see above). Moreover, indigents are not in a good position to explain and fight for themselves. In consequence, exemption rates at health facilities may not be a good indicator for indigence and for equitable distribution of health care resources in most African countries. The implementation of exemption schemes, price differentiation, or systems of subsidies, not only require a trade-off between efficiency and equity, but also managerial capacity and competence as well as up-to-date information. Therefore, viable solutions for improving access to health care of the indigent, necessarily tend to take into account all of these constraints.

REFORMING HEALTH CARE FINANCING: WHAT FUTURE?

The current debate on 'health care reform' in sub-Saharan Africa emphasizes the protection of the poor and indigent. Although a consensus seems to exist on this general issue, there is a real disagreement concerning how to do it. On the one side, there are the disciples of measures of better identification and exemption, focusing on the technical aspects of indigence. On the other side, there are those in favour of more global programmes and policies to address the causes of poverty and indigence, integrate political and social rights, and redistribute resources. The future of health sector reform in sub-Saharan Africa may include the following options: (A) reform of the existing mechanisms of financing health care of the indigent, including the issue of targeting subsidies; (B) promotion of solidarity through development and implementation of prepayment and (social) health insurance schemes; (C) priority to coordinated and intersectoral action to combat the causes of poverty.

Reforming financing mechanisms

In order to reform and improve the performance of existing mechanisms of financing health care of the poor and indigent, governments and public health officials should consider the following:

- It is necessary that governments develop and pursue a comprehensible, comprehensive, transparent, and precise policy regarding exemption schemes, systems of differentiation of prices and allocation of subsidies. It should be part of a more global and integrated social policy.

Table 4. Exemption rates from payment for health care services of rural poor and non-poor in Burkina Faso, Niger and Senegal.

Country/health care services	Proportion of poor patients benefiting from exemption (revenue in lower quartile)	Proportion of non-poor patients benefiting from exemption (revenue in three upper quartiles)	Proportion of all patients benefiting from exemption (all quartiles)	Number of individuals seeking health care
Burkina Faso (1994)				
Public health care services	60%	47%	50%	169
Niger (1992–93)				
Public health services				
Before introduction of user fees	94%	75%	77%	448
After introduction of user fees	40%	24%	27%	279
Senegal (1991–92)				
Health post	22%	16%	18%	2354
Public health centre or hospital	15%	22%	21%	460
Traditional healer	63%	63%	63%	300
Catholic mission	46%	28%	34%	260
Other private services	69%	73%	73%	77

Source: Leighton and Diop (1995).

- Exemption policies should strictly focus on those parts of the population that have little income, and that would otherwise be excluded from the benefits of the offered (minimum) health care package (World Bank, 1994). The possibility of arbitration must exist.
- The results and performance of actual policies and schemes have to be critically evaluated. Exemptions and similar schemes that accord benefits to the non-poor, such as civil servants, state employees, students, and soldiers, should be reconsidered, and possibly abandoned.
- The definition of thresholds, and of different levels of prices, should reflect the economic and social realities of the respective countries, if possible by region.
- Information on exemption policies and price differentiation should be made available to everyone and has to be displayed in all health facilities.
- If exemptions are accorded locally, health personnel and patients have to be well informed about the local exemption policies, and consensus must be reached with the community on who is to be considered indigent.
- The decision on the eligibility of a patient, and on price differentiation, should never be left to health personnel alone.
- Direct targeting on the basis of means testing and geographical targeting should be the preferred method to identify the indigent and poor.
- Criteria and thresholds of eligibility, as well as levels of differentiated prices, have to be clearly defined on the basis of a sound economic analysis, and should be regularly revised. If possible and feasible, the criterion of monetary income should be combined with other non-monetary criteria. This would prevent exemptions being accorded to only a part of the active population, namely to those disposing of (regular) monetary income, and particularly to those working in the formal sector (and who generally are among the better off).
- Eligibility for exemption schemes should be limited to a certain period of time.
- Managerial and professional capacity and competence have to be assured. This is of crucial importance, not only for the day-to-day management of the schemes, such as the carrying out of individual enquiries, according of benefits, supervision of activities, administrative control, but also for the conduct of the necessary socio-economic analysis to decide on the appropriate design of the schemes, and for evaluating their results and effects.
- Coordination among institutions and concerned individuals (administrative authorities, health committees, health personnel), and the flow of appropriate information has to be assured by standardized rules and procedures that are simple to apply and transparent to the concerned persons.
- Policies concerning resource allocation in the field of health care have to be revised in most countries. Priority should be given to services and activities of proven effectiveness and efficiency that benefit a large majority of the population.
- Possibilities and opportunities to develop and implement, or to extend, health insurance and prepayment systems that support solidarity, should be further explored (see next paragraph).

Promotion of solidarity through health insurance

Systems of prepayment and health insurance may overcome some difficulties in financing health care services, and they have the potential to facilitate access to health care. Whatever form of organization, and whatever type of management, is chosen, all insurance-like systems assume the existence of some form of individual or collective saving capacity, require mutual confidence between members, and suppose the presence of functioning and credible health care services. All systems have one important advantage in comparison to direct payment schemes: the time of payment is separated from the time of use of services. Payment does not occur at the moment of greatest vulnerability.

The development of insurance-like systems may improve, in the long term, the accessibility of health care services for the poor and indigent, if combined with elements of solidarity. However, they are difficult to design and to implement in low-income countries and, particularly, in rural areas. A multitude of factors may hamper the development of insurance or prepayment schemes. These consist of technical constraints (such as 'critical mass' of members to assure viable risk pooling), administrative and organizational problems (such as managerial capacity, including competence in designing contracts with health

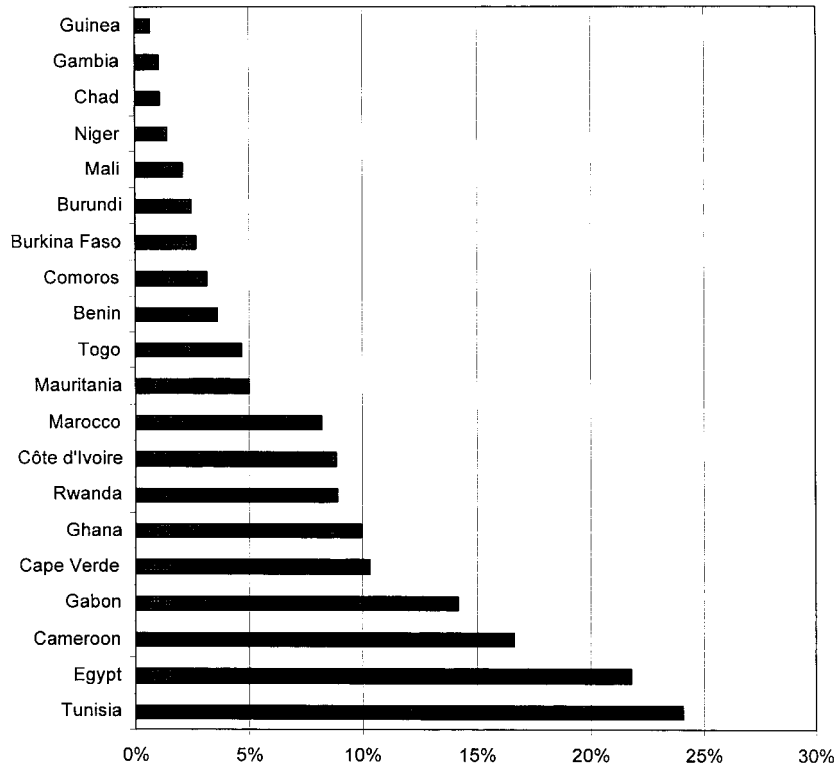

Figure 1. Population covered by social insurance schemes (about 1989, or closest year, in %); public servants excluded. (Source: Ramses 96 (1996), p. 236.)

care providers and in analysing actuarial data, if available), financial questions (such as administrative costs), and environmental issues (such as local and regional socio-economic conditions, conception of solidarity, dynamics of social organization).

Nevertheless, insurance-like systems do not directly solve the problem of permanent exclusion from health care for economic reasons, since all require the payment of contributions or premiums. Indigents may not be able to pay them. There are, in principle, only two answers to this problem: (1) the scheme would allow for exemptions (which would require a strong financial basis of the scheme, and solidarity amongst the members); or (2) a third party (such as local governments, or any other public institution) would have to pay, or subsidize, the fixed contribution or premium in place of the indigent. However, health

Table 5. Profile of health insurance coverage in Africa.

Country	Provider	Social groups covered	Population covered
Burkina Faso	Social insurance scheme	Formal sector employees	0.9%
Burundi	'Mutuelle' (friendly society) for public servants	Civil servants and parastatal employees	10% to 15%
Cameroon	National social insurance fund	Employees	Unknown
Côte d'Ivoire	Social insurance fund, 'mutuelle', private insurers	Employees	Unknown
Ethiopia	Private insurance companies	No information	0.01%
Kenya	National health insurance fund	Employees and their families	Up to 25%
Lesotho	Unknown	Employees	Unknown
Mali	Social insurance scheme 'mutuelle'	Employees	About 3%
Namibia	Public schemes, private schemes	Employees and their families	20% of formal workforce
Nigeria	Private insurance companies	No information	0.4%
Senegal	Civil service employers, private insurance companies	Employees	13%
Tanzania	Private insurance companies	No account	1%
Zaïre	Employers buy health insurance or provide care	Employees	Unknown
Zambia	State mining company provides care	Employees and their families	6%
Zimbabwe	Private insurance companies	No account	5%

Source: Derived from Nolan and Turbat (1993) and World Bank data. Extract from Shaw and Griffin (1995), p. 61.

insurance schemes can introduce solidarity amongst their members by sharing the financial risk of illness, if benefits are granted according to health care needs, while contribution rates are set in relation to ability to pay.

The need for coordinated and intersectoral action to combat poverty

Regarding poverty and indigence, the major challenge is not the issue of identifying the indigent and assuring their access to health care services, but to break the circle of poverty. Economic and social development policies have to be based on the increase of activities, and on the redistribution of incomes. Strategies to increase social justice and to alleviate poverty may include the following:

- provision and extension of a minimum package of essential care;
- provision of basic education and professional training to the concerned population to increase competencies and skills;
- encouragement of cooperation amongst communities, municipalities, and regions;
- redistribution of land through appropriate land reforms;
- development of cooperative associations and organizations to facilitate access to credit for the poor;
- redistribution of resources on the grounds of social justice and decentralization of powers.

The objective of these strategies is the improvement of living conditions of the poorest of the poor by providing the means to increase their resources, and thus to escape from dependency (Lovell, 1992). Carrin and Politi (1996) suggest that powerful instruments of poverty alleviation may be found outside the health sector. These instruments are similar to those listed above: land reform, access to credit, public works, subsidizing basic food, and providing education. Decision-makers in the field of public health, therefore, should try to utilize these instruments through intersectoral and concerted action. This is not only for the purpose of poverty alleviation, but also for positive effects on health. Experience has revealed that it is particularly basic education (of girls), appropriate housing, employment, adequate nutrition, and transport that show positive and sustained effects. Health care services, by themselves, have relatively little impact on the health status of entire populations (WHO, 1996).

CONCLUSIONS

Indigence, which is the advanced state of poverty and social exclusion, has become structural in sub-Saharan Africa. The issue of access to health care for the indigent is a complex one. It is not only the result of the effects of economic crises and structural adjustment. Strong economic growth, and the liberalization of all markets, will possibly not solve this problem of access to health care for the indigent.

The issue could be handled in two ways: The first is involved in the process of impoverishment, particularly in the development of the category of the indigent, resulting in living conditions that exclude poor segments of the population from the economic and monetary system, and, consequently, from modern health care. The second sticks to the more 'technical' issues of identifying and assisting the indigent. It treats questions such as determining the extent of the problem, of characterizing this category of the population, and of defining criteria for measurement.

These two modes of handling the issue are not neutral. Acting on the process of impoverishment means enquiry into the roles of existing economic and social mechanisms and dependencies that result in inequalities and inequities. Solutions may require new economic and social relationships, and a different distribution of wealth and power. For instance, it is revealing that in the general debate on poverty, it is almost never proposed to act directly on primary incomes. However, fiscal reforms, particularly in Africa, are a *conditio sine qua non* for any effective policy combating poverty and indigence. This more political approach—looking at socio-economic determinants of impoverishment—is rarely found in the international literature on access to health care of the indigent.

The literature is, in contrast, dominated by the 'accountant's approach': establishing technical criteria, identifying and 'counting' the 'real' indigents, proposing 'operational' solutions, targeting specific subsidies for the indigent. The problem is reduced to a technical one. These technical measures and instruments are, undoubtedly, necessary and indispensable. They are, nevertheless, far from able to resolve the problem of social exclusion of an important part of the population. Moreover, results in terms of adequately identifying the indigent, and of mechanisms thought to improve their access to health care, are rather deceiving. Without true fiscal reforms that tackle the negative effects of social, economic and fiscal policies, the discourse on the indigents' access to health care will only result in measures of social assistance that tend to reinforce nepotism. The approach of addressing macro-economic and social processes stresses the importance of inter-sectoral policies to combat poverty, and to promote health. It is essential for analysis, but is insufficiently operational for those actors who have no or little influence on national decision-making. One set of actors is, by the way, particularly absent in the whole debate on poverty and indigents: it is the indigent themselves. The debate seems to be restricted to international development organizations, non-government organizations, and politicians.

However, it is only by integrating both approaches to go beyond just 'doing something' for the indigents' access to health care, to promotion of the health of disadvantaged populations that true and significant progress may be made. This means policy and action to address the roots of poverty and inequity.

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