
CURRENT CONCERNS

ARA Paper number 14

**HEALTH INSURANCE FOR
THE FORMAL SECTOR
IN AFRICA: "Yes, but..."**

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Division of Analysis, Research and Assessment
World Health Organization



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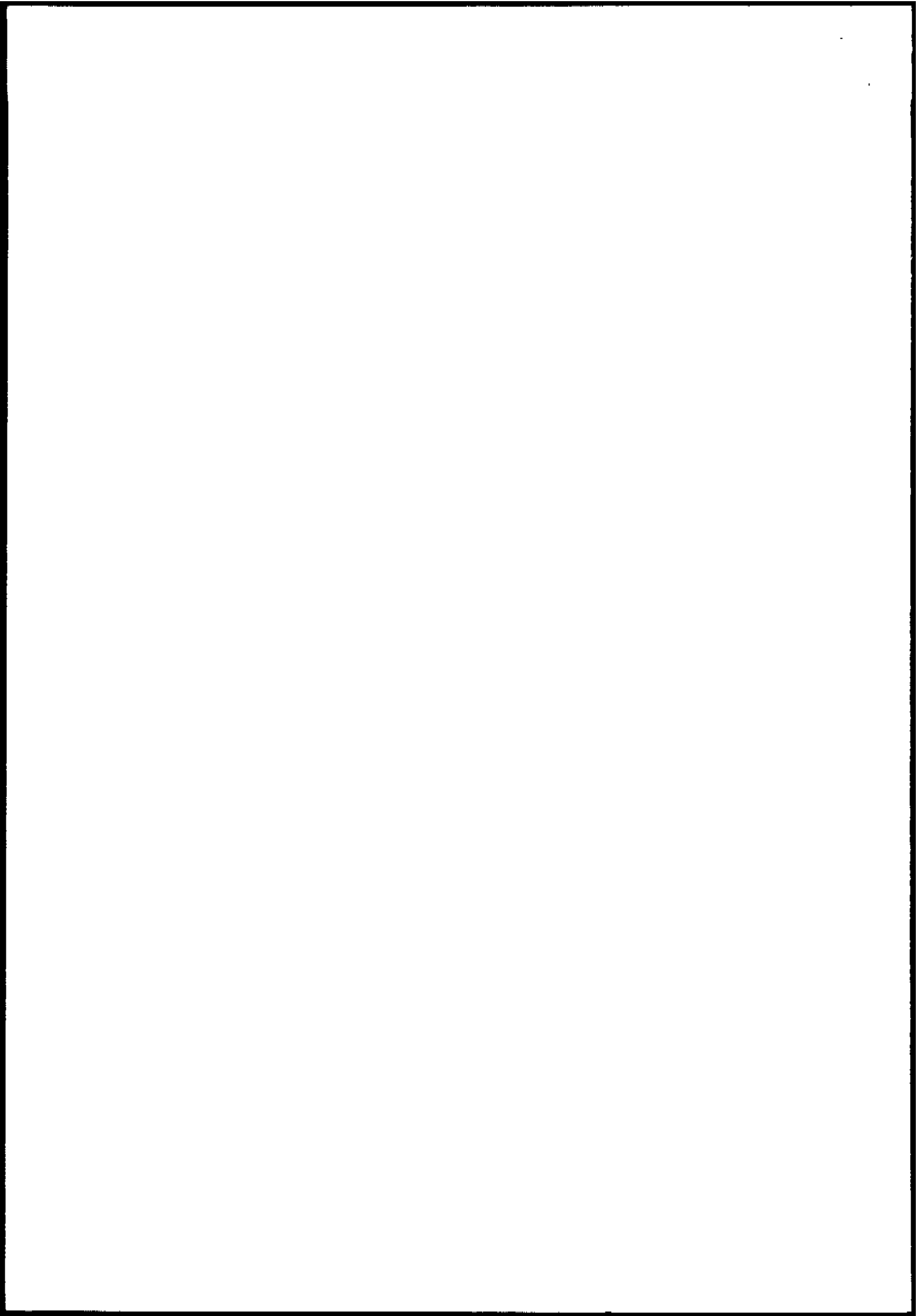
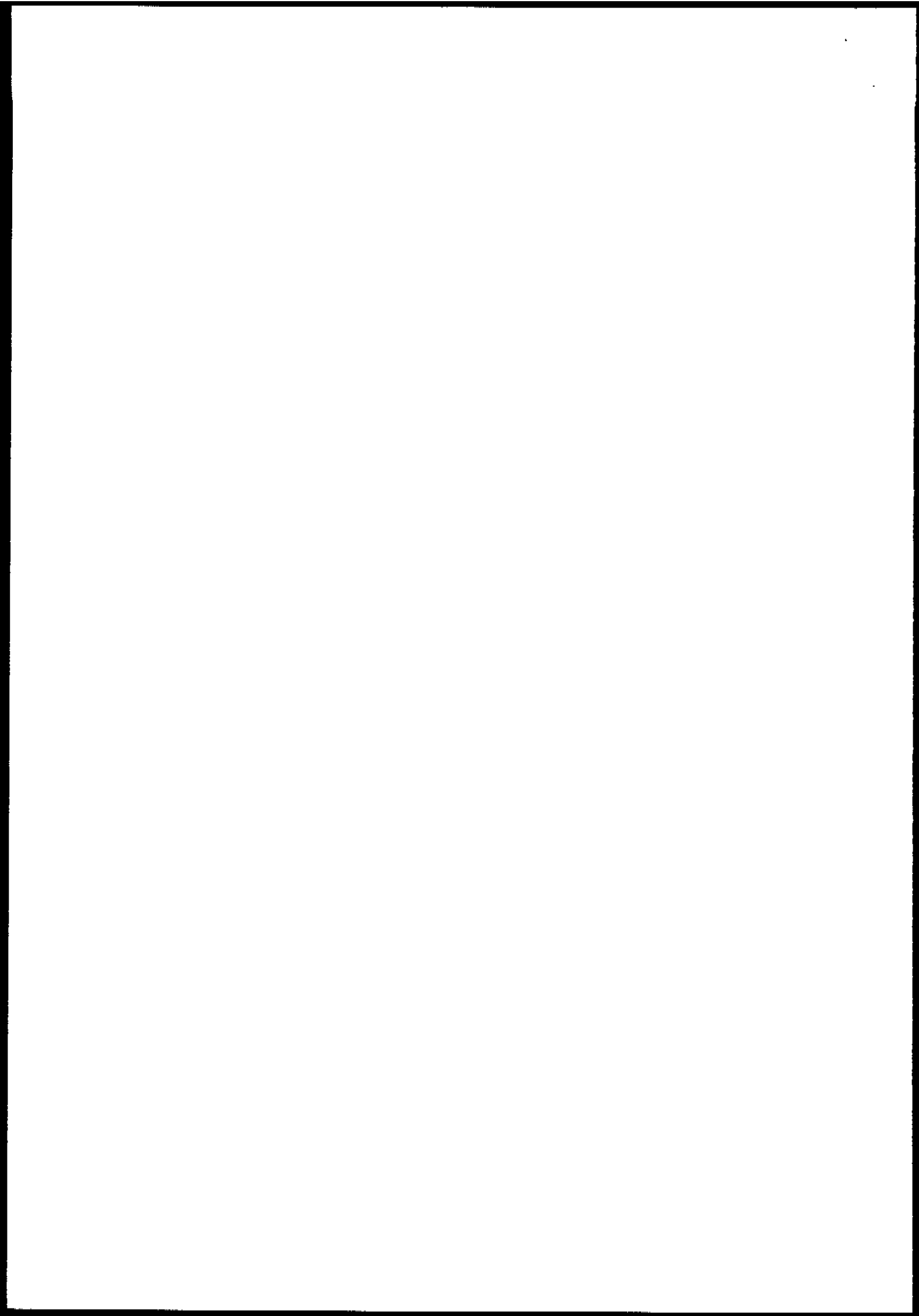
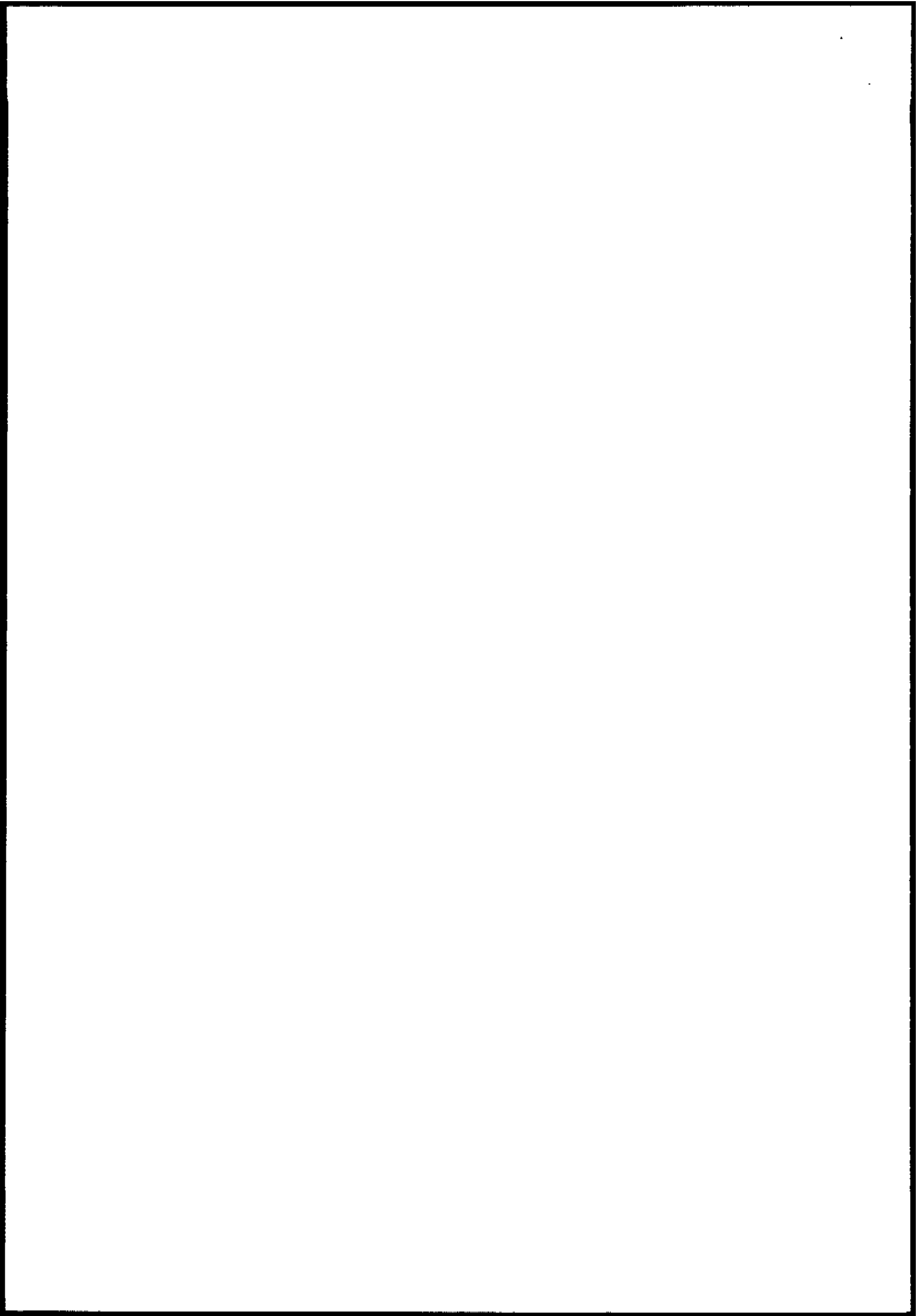


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This paper was originally prepared for presentation at a Senior Policy Seminar on Sustainable Health Care Financing held in Johannesburg, South Africa, from 24-28 June 1996. The seminar was co-sponsored by the World Health Organization's Regional Office for Africa, the Centre for Health Policy of the University of Witwatersrand, and the Economic Development Institute (EDI) of the World Bank. The original version of the paper will appear in an EDI publication summarizing the proceedings of the Seminar and containing a number of the presented papers.



Introduction

Health insurance can be organized in many different ways with different implications for the organization and delivery of health services. At a minimum, it is a means of paying for health care and of ensuring access to services by providing a mechanism for sharing the risk of incurring medical expenditures among different individuals. This definition implies that (1) there must be a financial cost tied to the use of health services, and (2) people are able and willing to use the insured health services when they perceive themselves to be sick. The latter point reflects the importance of physical access to services of acceptable quality. To be *effectively insured*, therefore, implies both financial protection and access to desirable services.

Countries and communities have implemented forms of health insurance that differ along a number of dimensions. One of the more important dimensions relates to the extent of the population that is effectively insured. In many countries, governments require and implement effectively coverage for the entire population. This coverage is financed through either general tax revenues (e.g., Canada, Finland, Great Britain, Sweden) or mandatory earmarked contributions (from employers, employees, and sometimes government) to a health insurance fund (e.g., Belgium, France, Germany, South Korea). In other countries, effective insurance coverage is not universal. These countries tend to have a mix of *schemes* of insurance, including some for which government mandates coverage of a defined segment of the population, and others for which participation is voluntary (e.g., China, Indonesia, Kenya, Thailand, United States). In this paper, a health insurance scheme is defined as an arrangement in which contributions are made by or on the behalf of individuals or groups of individuals (members) to a *purchasing* institution (i.e., a *fund*). The fund is responsible for purchasing covered services from providers¹ on the behalf of the members of the scheme. In countries without universal effective insurance, persons working in the formal sector of the economy are much more likely than the rest of the population to be covered by insurance schemes because it is easier to organize contributions and create large "risk pools" for this group.

The scope of this paper will be limited to health insurance schemes rather than the broader issue of effective insurance coverage. This implies an assessment of insurance focused primarily on persons working in the formal sector of the economy (and their dependants). Theories of what is possible will be combined with a review of what has actually happened in practice in an attempt to identify the conditions that make expanding insurance coverage for the formal sector (1) feasible, and (2) desirable. The distinction between feasibility and desirability is important to remember. Public policy objectives in the health sector include improving health status, equity, efficiency, acceptability (to providers and users), and sustainability. Expanding the number of persons covered by health insurance schemes may be a *means* to achieve progress on these objectives, but it is not an *end* of policy.

¹ It is possible for the fund and the provider to be the same entity (e.g., a prepayment scheme managed by a hospital).

By assessing the conditions needed for health insurance to be feasible and desirable, the appropriateness of strategies to expand coverage for formal sector workers in African countries will be considered. Some of these conditions are within the span of control of health sector decision makers. These relate primarily to the specific policies of the insurance scheme, the regulatory environment, and the organization of the health system. Other conditions are associated with broader issues of political economy and the relative power of different interest groups in society. Still other conditions relate to a country's level of economic, institutional, and managerial development. Countries can be expected to be at different stages with respect to many of these conditions. Therefore, the appropriateness of expanding insurance coverage for the formal sector may be different in different countries.

Objectives of Health Policy and Health Insurance

Health Policy Objectives

In order to assess the appropriateness of any policy tool, including health insurance, for achieving health policy objectives, one must first define these policy objectives explicitly and identify the main obstacles to achieving them. While the relative weight given to the different objectives of health policy varies from country to country, these objectives are fairly general and may be defined as improving equity, efficiency, acceptability/quality, sustainability, and health status. For purposes of this paper, only equity and efficiency are described in detail. The other objectives are considered, where relevant, as elements of these two broad policy goals.

Equity in the health sector has several dimensions (Wagstaff and Van Doorslaer 1993). Equity in the *finance* of care implies that payment for health care is related to an individual's level of income, irrespective of his or her medical need. Equity in the *receipt of care* implies that access to and use of services of an acceptable level of quality is based on medical need, irrespective of an individual's ability to pay. Assuming that health care improves health, this second dimension should be closely related to a third, which is equity in *health status*. Equity in health status implies a pattern of health and disease in society that is not related to the distribution of income and wealth. Although analysis of equity issues usually involves comparisons across income groups, other aspects of possible inequities (e.g., differences in the receipt of care relative to need by gender, age, ethnicity, etc.) should be considered as well.

Efficiency is also multidimensional. *Allocative efficiency* within the health sector refers to the extent to which sectoral resources are distributed to their most cost-effective uses. Allocative efficiency is also a relevant concept for assessing the size of the health sector in the national economy. Thus, policies can affect allocative efficiency by causing shifts in the distribution of resources within the health sector or between the health sector and the rest of the economy (issues of financial sustainability arise in this context). *Technical efficiency* is a narrower concept. It refers to the management and use of resources that have already been allocated within the sector. Analyses of technical efficiency try to determine if services are produced at lowest cost possible for a given allocation of resources and thus

often focus on the extent to which poor management practices or inappropriate incentives generate waste. A third dimension that is related to technical efficiency is *administrative efficiency*. This is concerned with the costs of managing the health system (WHO 1993). Ability to administer the health system efficiently is also an important element of institutional sustainability.

Common Problems Facing Health Systems in Africa

Countries in Africa (and in most other parts of the world as well) are faced with an array of health care financing problems that leave their health systems far from achieving the objectives of good health status, equity, efficiency, acceptability, and sustainability. The principal problem identified by most countries is simply a shortage of government budgetary resources for health care relative to an increasing demand and need for care. In a macroeconomic climate that, from the early 1980s through recent years, has been characterized by slow or no growth in national income or government budgets (and often a decline in real per capita terms), governments are seeking ways to limit their financial responsibilities for the health services (ILO 1993). One manifestation of the budgetary shortfall is a deterioration in the quality and effectiveness of publicly provided health services (Shaw and Ainsworth 1995). As a result, an increasing share of the burden of financing health services has been shifted to private individuals and households. In some countries, this has occurred through explicit reforms to introduce or increase user charges in public sector health facilities. In addition, the decline in the quality of government health services mentioned above has meant that individuals and households have had to increase their health spending in order to get services of reasonable quality, either by purchasing privately provided services or by paying for inputs and other 'informal' charges in government health facilities. Thus, through explicit policies and declining public resource allocations, populations are faced with higher costs of accessing quality health services at the time that they are needed. Given the evidence that indicates that fees pose a greater obstacle to utilization for lower income persons (Gertler and van der Gaag 1990), the growing reliance on private providers and formal and informal fees in the public sector has undoubtedly exacerbated problems of inequity in the receipt of health care services.

In addition to an absolute shortage of resources going into the health sector, patterns of spending in most countries cause or reflect an inequitable and inefficient allocation of inputs and services. The clearest example of this is the concentration of government resources in large urban hospitals. On average, persons living in urban areas have higher incomes than those in rural areas, yet the urban bias in government health spending means that the costs of gaining access to good quality care are highest for the most remote (and usually poorest) groups of the population. Moreover, evidence from several countries (e.g., Kenya, Tanzania (reported in Griffin and Shaw 1995), and Indonesia (MOH Indonesia 1995)) indicates that non-poor persons tend to consume more publicly financed hospital care per capita than do poor persons, implying that they receive a disproportionate share of government subsidies. This pattern of government resource allocation may also be inefficient because the most cost-effective clinical interventions that health systems can provide are those which are most appropriately delivered in a health center or other non-

hospital setting.² Health systems are also plagued by high levels of waste and other forms of technical inefficiency. These problems are a threat to any gains that might be achieved through reforms that improve potential cost-effectiveness and equity by reallocating resources (World Bank 1994).

Health Insurance Objectives

Expanding or changing the role of insurance in health systems provides a potentially useful tool for policy makers to address the problems just described to some extent. The need to mobilize additional nongovernmental sources of funds is the main impetus for a focus on developing or expanding health insurance schemes as a policy option, but insurance can also be a means to expand access to care (by reducing financial barriers to access at the time of illness) and to change the *pattern* of spending, hopefully in a way that improves the efficiency of resource allocation and use. Indeed, in many industrialized countries and some middle-income countries, the principal motivation for reforms of health insurance systems is not to mobilize additional resources but to control the rapid growth in government (and private) health spending. In these countries, the focus has been on changing incentives within health financing schemes (usually through changes in methods of paying service providers) to slow down the growth rate of expenditure. Another objective has been to improve technical efficiency and consumer satisfaction through the introduction of structured (managed) competitive mechanisms into the health sector.

From the perspective of government health policy makers, possible objectives of health insurance are those just described, which relate to broad efficiency and equity goals. However, there are likely to be other organized groups in society that may have different, or at least additional objectives. Three important groups are associations of health service providers (e.g., medical associations), formal sector workers (i.e., civil servants and those working in the private formal sector) either already covered by insurance schemes or targeted for the initial introduction of insurance, and employers. Important objectives of health insurance for providers are to raise their income levels and to increase their access to new technologies which could enable them to improve quality of care. For the initial group of insured persons, an important objective is to consolidate and expand *their* benefits, including greater choice and shorter waiting times, while trying to minimize the amount that they have to contribute to the scheme. Employers may be interested in providing good health benefits for their workers, but they also wish to keep their premium contributions as low as possible so that their overall costs of production are minimized. In this respect, they may be important strategic allies of government health policy makers. Understanding the interests of key stakeholders is essential if government is to have a chance of successfully achieving its aims.

² If the population is able and willing to pay for basic outpatient services on an out-of-pocket basis, however, a pattern of government health resource allocation targeted at only high cost referral services might be efficient from an overall sectoral perspective (Hammer and Berman 1995). This implies that government funds would provide insurance (i.e., income protection) against high cost, low probability events, while private sources pay for other personal health services. In practice, however, no government of a developing country has proven able to target its hospital subsidies so precisely.

Expanding Coverage: Questions that Governments Should Ask

Is an expansion of health insurance coverage through schemes for the formally employed population feasible? If so, will such an expansion be consistent with health policy objectives? For policy makers to answer these questions, a number of issues must be addressed. This section of the paper suggests a framework for addressing these issues and provides evidence from country experience to help illustrate their importance.

Before getting into the issue of expanding coverage, it is important to note that the current situation vis-a-vis health insurance varies considerably across African countries. Estimates of population coverage with either compulsory social insurance or private health insurance schemes range from zero or near zero in most countries to about 20 percent in Namibia and South Africa, and 25 percent in Gabon and Kenya (Monasch 1997). Some countries have government-run (or organized) schemes of social insurance, others rely primarily on private insurance (also called "medical aid schemes"), and other countries use a combination of the two. This variation in the existing context of the health insurance 'market' in different countries suggests a need for a pragmatic approach to policy rather than global prescriptions about the role of insurance schemes. While the information below is presented as issues related to the creation or expansion of insurance schemes, much of the discussion, especially with respect to equity and efficiency, is relevant to government policy with respect to the existing health insurance situation in countries.

As noted above, an expansion of health insurance coverage can increase health sector revenues, reduce financial barriers to care for the insured, and improve the efficiency of resource allocation and use. Where effective insurance coverage is universal and cost sharing (e.g., copayments) is limited or nonexistent, important financial barriers to access are reduced for the entire population. However, universal coverage with one or multiple insurance schemes is not feasible (and does not exist) in countries with a relatively large percentage of the population working as self-employed farmers or in the informal sector because of the difficulty of organizing premium collections for these persons or targeting subsidies for their purchase of insurance. Still, some have argued (Griffin and Shaw 1995, for example) that government should "encourage" the expansion of insurance coverage for the relatively small formal sector because this could ultimately benefit the poorer, uninsured population. The argument for this is that newly insured persons would switch from public to private providers. This would free government resources to be more precisely targeted to the provision of cost-effective services for the poor, uninsured majority.

Other authors have raised concerns that expanding insurance schemes for the formal sector could exacerbate inequities between insured and uninsured persons. The concern is that the methods used to encourage the expansion of coverage invariably involve some type of government subsidy for persons who are relatively well off economically. Moreover, there is no guarantee that the government health budget freed by this process will be better targeted, either to the poor or to more cost-effective services, especially where the relative size of the formal sector is small. Thus, these schemes enhance access to care for persons who already enjoy good access, while doing nothing or actually harming access to good

quality services for the rest of the population (Kutzin 1995; Bennett and Ngalande-Banda 1994).

How valid are these arguments? Those responsible for the health sector in each country must evaluate the issues for themselves. To do so, they need to address the following questions:

Feasibility questions

- a. What are mechanisms for expanding insurance scheme coverage to persons working in the formal sector of the economy?
- b. What are feasible strategies in the medium and long term for expanding insurance to poorer segments of the population?

Desirability questions

- c. How can insurance coverage be expanded without subsidizing its purchase to the extent that government does not end up concentrating even more of its limited resources on a relatively well off segment of the population? In addition, how can subsidies to the insured population for the use of government health services be limited?
- d. What can be done to limit the possibility or the effects of a diversion of scarce health human resources (e.g., doctors, nurses) from public to private patients that may be induced by an expansion of insurance coverage?
- e. What mix of incentives and regulations should be used to organize service delivery and contain costs within the insurance scheme(s)?

Each of these questions is addressed in the rest of this section, using country experience if it is available, with the aim of identifying the conditions that must be met for expansion of coverage with insurance schemes to be possible and to have desirable effects on health objectives.

Feasibility: Possibilities for Expanding Coverage

Expanding Coverage to the Formal Sector. There are two ways that insurance scheme coverage of workers in the formal sector of the economy can be increased. The first is for government to make such coverage compulsory, either through the creation of a social insurance scheme funded through a tax on employers and employees, or by mandating that employers provide insurance (or directly provide or reimburse health services) for their workers. The second is for government to provide incentives to employers and individuals to encourage them to purchase insurance voluntarily.

Several countries in Africa have social insurance systems financed through mandatory employer/employee contributions that cover health services for employees in the formal sector of the economy (e.g., Burundi, Cameroon, Côte d'Ivoire, Gabon, Kenya,

Senegal). Where these schemes cover civil servants, government contributes in its role as employer. In a few countries, private employers are required to provide coverage of health care costs for their employees, either through reimbursing employee health expenses (Zaire) or by creating company or inter-company medical clinics (Madagascar) (ILO 1993; Griffin and Shaw 1995; Shepard 1995).

For a system of social health insurance to be feasible, a number of administrative requirements have to be met. First, there must be mechanisms for collecting contributions, the level of which are defined as a percentage deduction from income. Because this requires having a common, agreed measure of income, this nearly always involves a payroll tax on employers and employees in the formal sector of the economy. The difficulty and cost of doing this for people working in the informal and agricultural sectors mean that social health insurance functions most easily when most of the population is working in the formal sector. In addition, given that a number of other payroll taxes (e.g., pensions, unemployment insurance, workmen's compensation) already exist in most countries, an important feasibility issue is the effect of an additional tax on the total wage bill of employers. The feasibility of social insurance is thus constrained by an increase in unemployment that may be induced by the introduction of this tax (Normand and Weber 1994).

A second set of administrative requirements for social insurance to be feasible relates to what might be called the "national infrastructure". This includes the presence of a core of well-educated administrators who could be trained to run the system. Some of the needed training and skills include: data collection, statistical analysis, claims handling, financial management, the economics of incentives and provider behavior, and negotiation. In addition to this need for people with specialized skills and training, there should also exist in the general population sufficient levels of literacy and numeracy so that the scheme can be understood. Another element of the national infrastructure is the development of appropriate legislation to codify the scheme into law, coupled with an ability to enforce these new laws. Features of the system that should be specified in legislation include issues of membership and population coverage, the means by which the scheme will be financed, the nature of the social insurance fund or funds (i.e., organization, decision-making authority, responsibilities, and accountability), the relationship of the scheme with providers, and the definition of the benefit package to which insured persons will be entitled. Finally, the health service infrastructure of the country must be able to provide the legislated benefits. To this end, government should develop an overall plan for the development of the health services that specifies responsibilities for covering the insured and uninsured parts of the population (Normand and Weber 1994; ILO 1993).

Employers sometimes provide or finance health protection voluntarily on the behalf of their workers. In Tanzania, for example, a survey of large, urban employers found that most provide some type of identifiable health coverage for their employees (Griffin and Shaw 1995). Some governments use incentives to encourage the private purchase of insurance coverage. For example, the governments of Zimbabwe and South Africa make a percentage of employer contributions to medical aid schemes either tax deductible or tax exempt to encourage the purchase of private insurance (Bennett and Ngalande-Banda 1994; Pillay 1995).

For incentives to be effective at expanding insurance coverage, many more conditions must be met than merely the will and capacity of the government. Where coverage is voluntary, individuals and employers must perceive the benefits of insurance as outweighing its costs. Clearly, therefore, the quality of care to be made available must be perceived to be good. Financially, premiums should be lower than the expected cost of using care. To achieve this, several policy and empirical conditions must be satisfied. First, user fees must exist. This is not generally an issue where the insurance would cover private providers, but the implementation of user fees in government health facilities is a prerequisite to the use of an insurance scheme as a source of financing of public facilities. Second, the insured group must be large enough so that the risk of incurring high cost health events is sufficiently spread so as to keep premium levels down. The size of the group depends upon the size of the formal sector and the number of insurers active in the market. Third, the scheme(s) should be designed in a way that keeps premiums low. Design features for improving the internal efficiency of health insurance schemes are discussed in more detail below, but an important point is that the services covered by insurance (i.e., the benefit package) should focus initially on relatively high cost, low frequency events, such as referral inpatient care. Government can affect benefit design directly if insurance is organized in a single government scheme, or through regulations or incentives for the benefit packages provided by private insurers. Fourth, the organizers of the scheme need information on health spending and utilization (risk) patterns in order to set premiums at levels that would be self-financing. Fifth, if insurance is a new development, government can support its development by identifying funds to provide startup capital to meet its initial operating costs. Finally, insurance needs to be organized and managed in a manner that keeps administrative costs as low as possible (Griffin and Shaw 1995).

Expansion of Insurance Coverage Beyond the Formal Sector. Equity is clearly related to the level of coverage achieved in health insurance schemes. As persons of lower income are brought into the insurance system, an important barrier to access is reduced for persons who need it most. Thus, insurance can be a powerful mechanism for improving equity in the receipt of care *within* the covered population (Griffin and Shaw 1995). Based on the experience of industrialized and developing countries that have been able to achieve universal coverage with health insurance, a number of conditions for the expansion of coverage and improvement in equity can be identified. Some of these conditions are manageable by health sector decision-makers, but expansion of coverage also requires a number of other factors that are largely outside their control of a country's health authorities (Kutzin 1995; WHO 1995). Some conditions relate to the specifics of policy decisions, some to a country's administrative capacity, some to macroeconomic circumstances, and others are related to broader issues of culture and historical development. The conditions are as follows:

- National policy should make universal coverage mandatory and establish a clear plan for moving in this direction. This requires that government have administrative systems capable of organizing persons in the non-formal sector of the economy, identifying persons for whom insurance premiums will have to be subsidized, and targeting subsidies to these individuals.

- There must be growth in levels of income and the percentage of the population employed in the formal sector of the economy.
- The national banking system must be efficient, and there must be a high level of administrative capacity to facilitate the flow of funds and information. There is a need for general skills broadly in the population, such as literacy and numeracy, as well as specific skills and systems related to the business and management of insurance (e.g., negotiation, data analysis, auditing, accounting, etc.).
- Because the expansion of insurance schemes involves the pooling of an increasingly greater level of funds, a high degree of integrity and probity in corporate and public affairs is needed.
- Countries which have achieved universal coverage also appear to have a history and culture conducive to social solidarity. As with integrity, this is difficult to measure but is essential for insurance to be expanded successfully on a large scale.
- Patience and commitment to making the insurance scheme as extensive as possible are essential, especially because the initial groups to be covered will be a powerful force for the consolidation and expansion of *their* benefits, rather than for an expansion of the scheme in general.

This is a soberingly long list of conditions, and governments should seriously consider their commitment to creating a national social insurance scheme before proceeding down this path. In most countries that have achieved universal coverage (e.g., Germany, Japan, Czech Republic, Costa Rica), the transition from partial to full coverage of the population took between 40 and 100 years. The fastest country to make this transition has been South Korea, which did so in 12 years. This occurred in the context of a clear government commitment to universal coverage, a strong local government system able to implement regular means tests to identify those in need of subsidies, and a real per capita GDP growth rate that averaged more than 10 percent per year during this period (WHO 1995).

Perhaps more relevant to African countries is for governments to consider supporting the development of insurance schemes for the rural and urban informal sectors of the economy. While this is beyond the scope of the current paper, it is important to note that there may be an important role for governments to play vis-a-vis these schemes, even though the limited number of examples for which good documentation exists only minimally involves governments.³ Where prepayment and insurance schemes for persons in the informal sector exist, governments should learn about them and try to coordinate them into the overall development of the health system. This might ultimately lead to a coordination of benefits and financing systems across schemes in a country, expanding the overall pool of the insured population. Based on their review of experience to date, however, Creese and Bennett (Forthcoming) conclude that such widespread expansion of health insurance schemes for persons outside the formal sector of the economy is probably not feasible in poor countries.

³ See Creese and Bennett (Forthcoming) for a global review, and, for a description of what is arguably the most successful rural prepayment scheme, the Bwamanda Health Zone scheme of Zaire, see Moens and Carrin (1992) or Shepard, Vian, and Kleinau (1990).

Desirability: Should Governments Promote Expanded Insurance Coverage?

Partial Coverage and Sectoral Equity. If policies are instituted to expand coverage with health insurance schemes for persons working in the formal sector, will the distribution of government subsidies for health become more or less equitable? And what will happen to access to care, not only for the insured, but for the entire population? The answers to these questions depend on a number of conditions, many of which can be affected by policy. The poorer, uninsured part of the population could benefit if the newly insured group "self-finances" the scheme, and if they move from public to private sources of care. This would allow government health funding to be focused more narrowly on those who would still use the public delivery system (Shaw and Griffin 1995). In other words, the technical conditions for equity improvements from expanding insurance for the persons working in the formal sector of the economy are:

- Newly insured persons must switch to privately financed care to such an extent that the sum of the public revenue liberated by this switching is greater than the government subsidies (e.g., tax relief) used to expand insurance.
- For newly insured persons who continue to use government health facilities, charges need to be set at rates high enough to recover costs fully, or possibly to allow for some cross-subsidization of services for the uninsured. This requires government providers to determine the costs of care and ensure that persons covered by insurance are charged at a rate that is at least equal to that unit cost.
- Newly freed government resources must be retained in the health sector and be targeted to services used by the poor.

The limited available evidence indicates that countries have had difficulties in meeting these conditions; therefore, expanded coverage of the formal sector with health insurance has usually worsened inequities. For African countries, a major constraint on equity is that the size of the formal sector is quite small and relatively well off in economic terms. Promotion of insurance initially skews resources towards this part of the population, and governments have not demonstrated their willingness or ability to put the other conditions in place that would actually allow for public resources to be refocused on the poor. Thus, for expansion of insurance to improve equity depends not only on how the scheme is financed but also on the broader health resource allocation policies of government (Bennett and Ngalande-Banda 1994).

In Burundi for example, a compulsory social insurance scheme for civil servants, members of the armed forces, employees of parastatals and universities, and their dependants, was the cause of great inequities in the capture of government subsidies for health. "Employers" (i.e., the government or government-supported bodies) funded this scheme (the *Mutuelle de la Fonction Publique*, or MFP) through a 7.5 percent payroll contribution (3 percent of which was deducted from employee salaries). In 1991, public expenditure on the services consumed (largely in the private sector) by this economically advantaged group, who comprised about 6 percent of the population, came to about 30 percent of total government health expenditure (World Bank 1993). Even if this insurance scheme caused all of its beneficiaries to move from public to private sources of care (an

extreme assumption), it is highly unlikely that the public resources freed by such a shift offset the amount spent by government to provide insurance for them.

An example from outside of Africa, a compulsory insurance scheme for Indonesian civil servants, provides further evidence of the inequities that can arise when such programs are created for government employees. This scheme has created additional equity concerns because the main benefit it provides is free use of public hospitals, and the reimbursement rates are actually below the cost of providing services. Thus, in this scheme, the purchase of insurance is subsidized (through government's "employer" contribution) and the use of services is also subsidized (through below-cost charges in public hospitals). A World Bank study found that the beneficiaries of this scheme used public hospitals at a rate that was five times the national average (Prescott 1991). This situation may be relevant for many African countries for which reimbursement rates for "private patients" in public hospitals may recover less than the full costs of care.

Inequities in the finance and receipt of care are also quite possible in countries that promote insurance through tax incentives. In South Africa for example, employer contributions to medical aid schemes are tax deductible and are tax-free benefits for employees. As in other countries, these tax benefits constitute government subsidies to a relatively well off segment of the population. Nineteen percent of the population is covered by health insurance schemes, but expenditures on the behalf of this group represent nearly 50 percent of total health spending (Pillay 1995). Thus, these schemes use government money (indirectly) to enhance access to care for groups of the population that would enjoy relatively good access anyway (at least for primary care), and there is no evidence that these schemes have freed public resources to be targeted to the poorer, uninsured majority of the population.

In the light of these examples, governments need to be cautious when considering expansion of insurance for a relatively well off segment of the population. Health insurance schemes in Africa (and in countries in many other parts of the world with relatively small formal sectors) tend not to be "self-financing"; instead, they usually involve a substantial element of subsidy. Why has this occurred? One answer to this question is that the technical conditions specified above have not been met. But this suggests further questions of why these technical conditions have not been met. There is not sufficient evidence from country experience to answer these questions conclusively, but it is unlikely that this situation is the result of repeated design flaws that could be resolved by applying a technical solution. Instead, the issues are likely to involve administrative capacity and the political power of well-organized interest groups. For a health insurance scheme to free resources that can be reallocated by government, the cost of the scheme must be minimized. This implies the need for strong administrative capacity. Where the insured use public hospitals, governments must be able to calculate the costs of inpatient (specifically for "amenity" rooms likely to be used by the insured population, not just the average cost of a hospital stay) care and routinely update this information so that prices (i.e., reimbursement rates) can be set to cross-subsidize the public sector. From the perspective of power politics, the insured population may be very well organized (given the relatively small size but important economic role of the formal sector). Thus, it may be in a position to put pressure on government to expand insurance benefits and possibly to have government directly subsidize their contributions.

Professional organizations of providers, such as medical associations, may also be a powerful force, pressuring government to increase the level of reimbursements paid them by the insurance fund. Any of these factors would limit the possibility that insurance could generate a surplus for redistribution to the uninsured. If government is truly committed to using insurance for the formal sector to increase resources available to the uninsured, it will need to make use of political skills to support its technical objectives. This might involve public education campaigns and the building of strategic alliances with other organized groups (employers and possibly associations of private insurers) that are interested in keeping down the costs of providing insurance.

The lesson from experience is not that expanding insurance is certain to worsen equity, but rather that the methods chosen to promote such an expansion must be part of a comprehensive strategy to establish the conditions needed to improve equity. Expanding insurance coverage could be part of a broader program to reduce inequities, but by itself, it could easily make things worse. As those who have promoted the expansion of insurance for the formal sector in Africa correctly note, however, existing health systems are already characterized by substantial inequities (Griffin and Shaw 1995). Governments need to analyze their current problems and context carefully, consider their options for improving equity in the finance and receipt of care, and then determine if measures to expand insurance coverage for the formal sector (or to reform existing policies with respect to insurance) constitute the best policy choice. As part of this assessment, they need to determine the likelihood that they will be able to meet the technical conditions required for insurance expansion to improve equity. It is very likely that meeting these conditions will demand investments in administrative capacity and attention to the politics of policy implementation.

How Can Scarce Health Personnel Be Retained to Serve "Public" Patients?

Even if government puts policies in place to promote expanded insurance coverage in a way that should yield a net increase in revenues available to serve the non-insured, poorer segment of the population, the expansion of the private sector induced through growth in insurance is likely to induce a shift in scarce skilled human resources from the public to the private sector. This could constrain the possibility of insurance improving equity in the receipt of services, as fewer skilled providers per capita are likely to remain in the public service. Thus, it is important to ask what the impact of expanded insurance is likely to be on the distribution of skilled human resources in the health sector and whether policies can be identified and implemented to stem the "brain drain" from the public to the private sector.

Evidence on the distribution of staff in the public and private sectors (and the relation of this to insurance coverage) suggests that this distribution may be even more inequitable (in terms of urban/rural differentials) than that of overall resources (WHO 1995). In South Africa, for example, the relative growth of the private sector over the last decade has resulted in there being four times as many persons per doctor in the public sector as in the private sector (Pillay 1995). Presumably, expanding insurance coverage can be expected to expand private provision, including the development or expansion of private for-profit hospitals and individual or group private medical practices. Private facilities are likely to be more attractive to providers because they offer the possibility of greater earnings (funded by

insurance) and better working conditions. Because formal sector employees tend to be concentrated in urban areas, an expansion of insurance coverage for this group may exacerbate urban/rural differences in the availability of skilled health providers. The growth in private sources of care would probably mean a movement of human resources from the public to the private sectors within urban areas, as well as attracting public providers from other parts of the country.

There has been no empirical work to illustrate the impact of expanding health insurance on the distribution of skilled health human resources. Thus, it is difficult to identify with confidence conditions needed to limit the potentially harmful consequences of such expansion for equity in the availability of providers. In technical terms, there needs to be a sufficient quantity of skilled providers to provide services to the insured population without absorbing staff who previously served the uninsured. Related to this, the income provided by insurance to providers should not be so great that it diminishes the ability of the government health services to attract staff (WHO 1995). In addition, limiting benefit packages to inpatient care should reduce the outflow of doctors and nurses into private practice.

In practice, African governments have tried to introduce policies to retain skilled staff in the public delivery system. For example, bonding has been implemented in Zimbabwe and Lesotho, and public sector salaries have been raised in Nigeria and Zimbabwe. However, these policies do not seem to have been very effective. Another option that has been used in Malawi and Zimbabwe is to allow private sector physicians to practice in public hospitals in return for them agreeing to treat public patients free of charge (Bennett and Ngalande-Banda 1994). The problem of staff retention in the public sector is not specific to health insurance expansion but can clearly be exacerbated by it.

There are no obvious answers to the question of how to retain staff in the public sector in the context of an expanded private sector. More policy options need to be developed, including internal reforms to improve salaries and working conditions in the public sector, and other measures involving agreements or contracts with private providers to serve public patients. In any event, policy makers need to be aware of the likelihood that policies to expand insurance coverage for the formal sector are likely to further skew the availability of services due to the drain of skilled providers from the public to the private sector (i.e., from poorer to richer patients), and to further concentrate service providers in urban areas.

What Can Governments Do to Encourage Efficiency Within Insurance Schemes?

The issues addressed in the preceding sections of the paper dealt primarily with equity. Governments should also be concerned with the efficiency of insurance schemes for the formal sector. There are two broad reasons for this. First, efficiency is an objective in its own right, and governments should try and promote this in all parts of the sector to improve social welfare. Second, where insurance schemes cover a relatively small and privileged part of the population, internally efficient schemes are essential to government's ability to promote overall sectoral *equity*. The reason for this is that if the costs of the insurance

scheme are kept under control, the pressure for government to increase subsidies to the insured population (via the "employer" contribution to social insurance for civil servants or tax relief for the voluntary purchase of insurance) is reduced. This, in turn, makes it more likely that the insurance scheme will result in "freed up" resources that government can target to the uninsured. Thus, efficiency in the insurance subsector is essential to overall equity in health resource allocation.

As noted by Shaw and Griffin (1995), risks must be pooled on a large scale for insurance to be efficient, and thus for premium levels to be kept as low as possible. For existing systems of health insurance, this may be facilitated by government policies to encourage large groups to form. If there is a very limited or no private health insurance market in a country, a large group can be created through a single government-run scheme or a single scheme managed by an autonomous government agency or a not-for-profit firm. In some countries, existing legislation needs to be changed for the size of risk pools to be increased. In Senegal for example, legislation requires each private firm with more than 100 employees to form its own insurance group. This results in several groups that are exceedingly small from the perspective of insurance, and this caused the Senegalese social health insurance system to run into financial difficulties (Vogel 1988). Where such legislation exists, it should be revised to facilitate the amalgamation of employer-funded groups into larger risk pools.

There are several other ways that governments can affect the efficiency of health insurance arrangements. These include incentives and regulations for private insurers and providers, or government directly acting as the insurance fund. Key elements of the tools available to government include regulating or defining the benefit packages, the means by which services are accessed, and the methods by which providers are paid in insurance schemes. There are other ways that government can affect insurance, but these are critically important because of the incentives for efficiency (or inefficiency) they can create.

Irrespective of whether they are publicly or privately administered, the aspect of health insurance schemes that appears to have the most important implications for efficiency is the role of the insuring (i.e., fund holding and purchasing) institution. Where it acts simply as a financial intermediary that collects premium payments and reimburses claims, as in public insurance schemes in China and unmanaged private schemes in South Africa, the United States, and Zimbabwe, the volume of services consumed tends to rise dramatically, increasing total costs. In systems where the insurer functions as an active purchaser of services in pursuit of savings and efficiency, cost increases have been limited (Kutzin 1995; Kutzin and Barnum 1992).

There is abundant evidence from countries around the world (e.g., China, the Czech Republic, South Africa, South Korea, the United States) that fee-for-service reimbursement of providers by insurers causes rapidly rising costs because of the incentives generated to produce excess services. Because patients depend on providers for information as to their treatment needs, and because fee-for-service payment creates an incentive to increase the volume of services in order to increase provider income, this payment mechanism has been shown to lead providers to "induce" demand for referral services. While many

recommendations for policy with respect to health insurance are contingent upon a number of factors, one that is unequivocal is that unregulated fee-for-service reimbursement should be avoided (Barnum, Kutzin, and Saxenian 1995; WHO 1995). Other forms of provider payment, such as capitation, can be defined by government for social insurance schemes. Where private insurance exists, governments should encourage insurers to use alternatives to fee-for-service, perhaps through tax incentives that limit the deductibility of premium payments for insurance using fee-for-service, while maintaining deductibility for insurance that uses other methods of paying providers.

The risk of inefficiency from fee-for-service systems can be limited, to some extent, by prospective and retrospective controls on the volume of care, but implementing these effectively requires substantial administrative capacity and a highly developed information infrastructure. Case-based retrospective reimbursement, such as hospital payment for diagnosis-related groups (DRGs), is (from a technical perspective) an improvement over fee-for-service because it pays for outputs rather than inputs, but such payment methods require sophisticated and expensive systems to monitor providers and update payment rates. Therefore, they are probably not feasible in poor countries (Kutzin 1995).

An important function that is essential for cost containment is that of a *gatekeeper* who controls access to more expensive referral services. This function is an important element of the health systems in many industrialized countries, such as Denmark, Finland, Ireland, New Zealand, Portugal, Sweden, and the United Kingdom. Thus, it is used in many countries that have effective national health systems or social insurance systems. In these countries, the gatekeeper function is usually played by a general practitioner with whom the covered person is affiliated. In many other countries, gatekeepers are a feature of private insurance schemes. They exist, for example, in private health maintenance organizations (HMOs) that are found in Chile, the Philippines, South Africa, the USA, and elsewhere. The power of the gatekeeper function is strengthened in systems, such as in HMOs and the "GP fund holding" arrangement in the United Kingdom, where gatekeepers bear some measure of financial risk for their clinical decisions (Kutzin 1995).

Another way that insurance costs can be reduced is to limit the benefits covered by these schemes to high cost, but low frequency health events. These events are often referred to as "catastrophic", and catastrophic insurance coverage protects individuals against these costs. If the insurance pool is large enough, catastrophic coverage can be inexpensive because the risks are spread over a large number of people. This approach can be effective for financing referral (mostly inpatient) care for the insured population (Griffin and Shaw 1995). Although it might not seem appropriate to leave primary care uncovered, it is quite likely that formal sector employees can and will pay for their ambulatory care out of pocket. Nevertheless, there may be some problems with this approach. Unless effective administrative procedures, such as gatekeeping, mandatory second opinions, or the insurance fund's approval (certification) of admissions are in place, this type of insurance might cause overuse of hospitals and a greater concentration of resources at this level. The reason is that insured persons will have a strong incentive to ask their providers to treat them in a way that minimizes their out-of-pocket costs. Alternatively, it might prove very difficult politically to limit the benefits to catastrophic coverage. Experience from several countries (the Czech

Republic and Thailand, for example) suggests that the formal sector and civil servants will fight to expand their benefits in such programs, and their demands can prove difficult for governments to resist. Indeed, expansion of benefits may be more likely than expansion of the population being covered (WHO 1995).

It is important to remember the political obstacles cited previously as obstacles to generating a surplus from the insured population that can be reallocated to the health services used by the uninsured, because these same obstacles are likely to limit government's ability to encourage efficiency within insurance schemes. For example, physicians will resist attempts to change from a system of fee-for-service reimbursement, and the insured population is likely to resist other changes, such as the introduction of gatekeepers, that will limit their choice of service providers. Government may very well share a common interest with employers in keeping the costs of insurance schemes under control, however, and should actively collaborate with them in order to push for efficiency-oriented reforms.

Conclusions

Irrespective of whether or not a government should attempt to expand coverage with insurance schemes for the formal sector, many countries are faced with existing health insurance schemes that are in need of major reforms. Many of the measures suggested above apply to existing schemes and should be considered as possible areas of government action. Thus, governments can act to reduce existing inefficiencies in the insurance subsector for the purpose of improving both efficiency and equity in the health sector as a whole.

In theory, gains in sector-wide equity and efficiency can arise from the promotion of expanded insurance coverage for the small formal sector, but the conditions needed to achieve them are stringent and require strong government commitment. Unless these conditions are met, this type of insurance promotion will worsen existing inequities by causing a greater share of government funds to be absorbed by wealthier population groups, not "freeing up" resources for the poor in any meaningful way, and by exacerbating inequities in the distribution of health human resources, especially physicians' services. In addition, expansion of insurance schemes will not improve allocative efficiency and might make it worse (through a greater concentration on urban, tertiary care), unless benefit packages and access to referral facilities can be managed effectively. Evidence to date reveals a large gap between the desired effects of insurance expansion and the actual effects observed in the countries in which it has occurred. The reasons for this probably have a lot to do with the impact that powerful interest groups have had on the design of government policies.

Government policy choices and priorities should be rooted in the existing reality of institutional and economic development and oriented towards the pursuit of the broad policy objectives of equity and efficiency *for the sector as a whole*. When considering any policy option, such as policy with respect to the creation or expansion of health insurance schemes in the context of a relatively small formal sector, the general question that should be asked is, "What are the priority problems facing the sector, and will this option (i.e., expanding

insurance schemes) help or make things worse?" The evidence to date on insurance schemes for the formal sector suggests that while such schemes may be desirable in theory and can certainly be advantageous for those who are covered, they have had a deleterious impact on the equity and efficiency of the overall health sector. In countries which already have a well-established insurance subsector, government policy should focus on making existing schemes function more efficiently (so that their absorption of government subsidies is reduced) rather than on expanding coverage to more people in the formal sector. In countries with no or very minor coverage by insurance schemes, the creation or expansion of such schemes does not appear to be an appropriate priority for government attention relative to the tremendous need to improve the functioning of basic health services for the majority of the population (so that access to good quality services can be 'insured' for those persons who do not currently enjoy it). Moreover, the successful functioning of such schemes increases the demand for scarce human resources, such as skilled administrative, managerial, and analytic staff. As with skilled medical staff, insurance schemes can divert these people from serving the needs of the majority to those of the privileged minority.

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Annex One

Glossary of Selected Health Insurance Terminology

Adverse Selection: Phenomenon that can occur in the context of voluntary enrollment of individuals into health insurance schemes. When a disproportionate share of persons with a high probability of incurring expensive medical costs is covered by a scheme, this *adverse selection* can jeopardize the scheme's financial viability.

Benefit Package: Services and the means of accessing services that are covered by the insurance scheme.

Budgets: Periodic allocation of funds to (or on the behalf of) health facilities. The total amount of the allocation is determined in advance (prospectively).

Capitation: Fixed payment to providers per person enrolled in the insurance scheme. Providers paid by *capitation* bear the financial risk for providing a defined package of services to their beneficiary population.

Catastrophic Costs: These are costs arising from treatment of an illness that are extremely high relatively to individual or household income. *Catastrophic costs* usually are associated with expensive referral hospital care.

Case-Based Reimbursement: Retrospective payment of an administratively predetermined amount per case or episode of illness. Individual services are bundled into distinct *case* categories that are reasonably homogeneous with respect to resource cost, and providers are reimbursed a fixed amount per *case* in each category.

Coinsurance: Percentage of the total charge for a service that must be paid out-of-pocket by covered persons.

Contribution Mechanism: The means by which revenues are mobilized for insurance. Sources of finance include (1) allocations from general tax revenues, (2) mandatory contributions to an insurance *fund*, and (3) voluntary contributions to an insurance *fund*.

Copayments: Flat amounts that covered persons must pay out-of-pocket for each service used.

Cost Sharing: Any direct payment made by the users of health services to the providers of services. Modalities of *cost sharing* include *copayments*, *coinsurance*, and *deductibles*.

Coverage: The beneficiary population. This could refer to the percentage of persons who are *covered* by insurance, or to defined population groups (e.g., employees and dependants) who are *covered*.

Covered Services: see *benefit package*.

Deductibles: Amounts that must be paid out-of-pocket by covered persons before the benefits of the insurance program become active.

Excluded Services: Services or methods of using services that are not covered in the benefit package of an insurance scheme. Individuals are liable for meeting the full costs of *excluded services*.

Fee-for-Service Reimbursement: Retrospective (i.e., after use of covered services is reported) payment per item of service provided. *Fee-for-service reimbursement* rates can be determined either by market forces or through administratively determined or negotiated fee schedules.

Fund: The institution responsible for accumulating and spending the (prepaid) contributions for insurance (see *purchaser*). *Funds* are usually *third party payers* (public or private) but can also be providers. In the latter case, some functions of insurer and provider are integrated in a single institution.

Gatekeeper: The institution or individual responsible for determining access to referral services. The *gatekeeper* function is usually the responsibility of the provider of first contact primary care.

Moral Hazard: Impact on an individual's demand for care of an out-of-pocket payment that is less than the cost of providing services. Because insurance (including centrally tax-funded services) covers some or all of the costs of service use, individuals tend to use more services than if they faced the full cost of care.

Provider Payment: The mechanisms by which resources are allocated from the insurance fund(s) (or national health service) to institutional (e.g., hospitals) or individual (e.g., doctors) service providers. Options include the following: (1) budgets/salaries, (2) capitation, (3) fee-for-service reimbursement, (4) case-based reimbursement, and (5) different combinations of these options.

Purchaser: The institution responsible for *purchasing* health services from providers. This always includes the insurance fund itself, but some schemes involve additional *purchasers* as well, including entities that are also service providers. See *fund* and *third party payer*.

Risk Pool: Group of people covered by the same insurance scheme.

Risk Rating: A basis for determining an individual's or group's contribution (premium payment) to a health insurance scheme. In a *risk rated* scheme, the contribution rate is determined by an individual's or group's expected cost of service use rather than by their level of income (as in a *social insurance* scheme).

Salaries: Similar to budgets but applies specifically to health workers. *Salaries* are prospectively determined allocations.

Social (Health) Insurance: System of financing care through contributions to an insurance fund operating within a tight framework of government regulations. *Social insurance* usually involves mandatory, earnings-related contributions by employers and employees.

Supplier-induced Demand: Phenomenon arising from the reliance of patients on providers for information on their need for specific services. While not necessarily harmful (an important function of providers is to inform patients about their condition and treatment options), the potential for costly and potentially harmful overuse of services exists where providers benefit financially from their treatment they recommend (and provide). *Supplier-induced demand* is the reason why *fee-for-service reimbursement* causes cost escalation.

Third Party Payer: Intermediary institution responsible for paying providers for services rendered to covered patients. Such *funds* or *purchasers* are called *third party payers* because they are neither patients nor health care providers.