Healthcare Financing Through Health Insurance in Kenya: The Shift to A National Social Health Insurance Fund

ARTICLE · SEPTEMBER 2004

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Healthcare Financing Through Health Insurance in Kenya: The Shift to A National Social Health Insurance Fund

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KIPPRA Discussion Paper No. 42
September 2004

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Published 2004

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ISBN 9966 949 68 2

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KIPPRA acknowledges generous support from the European Union (EU), the African Capacity Building Foundation (ACBF), the United States Agency for International Development (USAID), the Department for International Development of the United Kingdom (DfID) and the Government of Kenya (GoK).

Abstract

The overall goal of the Government of Kenya is to promote and improve the health status of all Kenyans by making health services more effective, accessible, and affordable. To address problems in the health sector, and to make healthcare accessible and affordable, the government, in the early year after independence, instituted and implemented various healthcare reforms, among them setting up of health insurance through the National Hospital Insurance Fund (NHIF). However, the focus of NHIF has been mainly on formal sector employees. This has left out those in the informal sector, those in agriculture, and pastoralists. The government plans to transform the current NHIF to a National Social Health Insurance Fund (NSHIF) as a way of ensuring equity and access to health services by the poor and those in the informal sector, who have been left out for the forty years that the NHIF has been in existence. In view of the proposed transformation, this paper aims to lead policy makers and programme planners through the process of evaluating the usefulness and feasibility of a social health insurance system. The paper offers insight into the process of a successful implementation of such as scheme by addressing the foreseen obstacles and issues of desirability and feasibility in assessing the appropriateness of social health insurance. It also addresses the likely impact on the economy, the health sector and the various stakeholders, after introduction of the insurance scheme. The paper reviews the experiences of other countries and draws lessons from those experiences. The paper finds that most of the conditions for setting up a social health insurance in Kenya are not yet in place and a lot needs to be done to meet these conditions. In addition, there are likely to be both positive and negative impacts on various stakeholders. The paper recommends that the decision to introduce universal health insurance be premised on a careful and thorough assessment of all the issues being raised, and implementation based on clearly outlined stages.

This Discussion Paper is produced under the Umbrella Project for *Improving the Enabling Environment for Businesses in Kenya*. The aim of the Project is to improve the policy, legal, and regulatory environment for businesses. The Project has three components. The **Simplifying the Regulatory Environment for Business (SREB)** component involves research on constraints to operation of business by the private sector in Kenya. The **Private Sector Advocacy** component assists the private sector in advocating for reforms that create a favourable environment for business and investment. The **Capacity Building** component aims to build capacity in line ministries and regulatory agencies to respond to reform proposals made by the private sector and other stakeholders. KIPPRA implements the first and third components while the Kenya Private Sector Alliance implements the advocacy component. The Project is funded by the British Department for International Development (DfID).

Contents

1. Introduction

One of the overall goals of the Government of Kenya is to promote and improve the health status of all Kenyans by making health services more effective, accessible and affordable. Therefore, health policy in the country revolves around two critical issues, namely: how to deliver a basic package of quality health services, and how to finance and manage those services in a way that guarantees their availability, accessibility and affordability to those in most need most healthcare.

At independence, the Kenyan government committed itself to providing "free" health services as part of its development strategy to alleviate poverty and improve the welfare and productivity of the nation. Despite the rapid expansion of the healthcare sector, various constraints made it impossible for the government to continue financing increased healthcare demands. Inefficiencies and inequities characterise the healthcare delivery system due to poor management and inappropriate pricing of services. In order to address problems in the health sector, and to make quality healthcare accessible and affordable, the government instituted and implemented various healthcare reforms, one of which included health insurance through the National Hospital Insurance Fund (NHIF).

The NHIF has mainly focused on formal sector employees. This has left out those employed in the informal sector, those in agriculture, and pastoralists. Also, structural adjustment reforms and poor economic growth have increasingly pushed labour into the informal and small-scale agriculture sectors where livelihoods are often insecure and incomes are low and uncertain. This means that these vulnerable groups need relatively more healthcare, and leaving them out negates the government's objective of making health services affordable and accessible.

As a way of reaching out to those in the informal sector and the poor, the government plans to transform the current NHIF to a National Social

Health Insurance Fund (NSHIF). The aim is to ensure equity and access to healthcare services by the poor and those in the informal sector, who have been left out for the forty years that the NHIF has been in existence. It is also expected that the new scheme will increase healthcare service utilization, which has suffered under cost sharing, by extending the benefit package to also cover outpatient care. The current cost sharing fees will be replaced by pre-paid contribution into the new scheme.

In view of the proposed transformation, this paper aims to lead policy makers and programme planners through the process of evaluating the usefulness and feasibility of a social health insurance system. The paper offers insight into the process of implementing a successful scheme by addressing the foreseen obstacles. The paper is divided into six sections. After the introduction in section 1, we give a conceptual framework on health insurance in section 2, outlining the need for health insurance, the market failures associated with it and the role of the government in health insurance markets. Section 3 discusses the social health insurance scheme, addressing the issues of desirability and feasibility. Section 4 discusses the types of health insurance in Kenya but with a major focus on the National Hospital Insurance Fund and the proposed National Social Health Insurance. Section 5 discusses experiences of other countries on their health insurance schemes and draws lessons from those experiences. A summary of findings is given in section 6.

2. Conceptual Framework

Health insurance is an institutional and financial mechanism that helps households and private individuals to set aside financial resources to meet costs of medical care in event of illness. It is based on the principle of pooling funds and entrusting management of such funds to a third party that pays for healthcare costs of members who contribute to the pool. The third party can be government, employer, insurance company or a provider (Kraushaar, 1994). In health insurance, every member of the insurance scheme pays the premiums irrespective of whether he or she gets sick. As such, insurance schemes have a higher potential for cost recovery (Tenambergen 1994, Shaw 1988). Cholleteta (1997) observes that by pooling the risk of large healthcare expenditures of many people, health insurance can make necessary healthcare affordable to all.

Health insurance attempts to reduce the financial and non-financial risks associated with chronic illness or injury, since individuals are uncertain about health status and expenditures in future. The risks include loss of life and deterioration of health. Deterioration of health reduces the ability of an individual to work, or reduces the productivity while working such that the individual faces the risk of lost (market and non-market) wages. Another risk may arise, as an individual may be unable to enjoy other forms of consumption, like participation in sports because of their health status, or they may suffer emotional and psychological trauma associated with physical deterioration. These events and consequences are uncertain, both in size and in occurrence. Individuals are therefore always willing to pay to reduce this risk (Jack, 1999). Due to this risk aversion behaviour, many individuals will seek insurance and they will effectively pool their risks through an insurer. Given large numbers, the condition that the risk of any one individual suffering the loss is statistically independent of that of another should be satisfied for insurance cover. This explains why natural disasters like epidemics and earthquakes that affect large regions do not qualify for insurance cover.

Pauly (1968) and Jack (1999) demonstrate that the dead-weight loss[1] to the consumer is the difference between the individual's net surplus with and without insurance. Therefore, when the demand curve is not perfectly inelastic, the individual's choice between facing risk or insurance will depend on the mean of the probability distribution of the medical care expenses in both cases. If the demand curve is perfectly inelastic, the individual will prefer having insurance to risking the cost of medical care. The elasticity of demand for healthcare will be important in choosing the optimal insurance policy by risk-averse individuals. The dead-weight loss depends on the slope of the demand curve. When the demand curve is nearly vertical (inelastic), the dead-weight losses are small and relatively high levels of insurance will be desirable. For more elastic demand curves, the dead-weight losses are large and the appropriate coverage will be much lower, i.e. higher premiums will be charged and individuals may prefer risk to insurance.

It has however been shown by Arrow (1963) that many risks are not covered, and indeed the markets for the service of risk coverage are poorly developed or non-existent. Arrow (1963) argues that to achieve Pareto optimality, insurance policy against all risks should exist. Therefore, absence of insurance policy would be a necessary and sufficient condition for market failure. Therefore, the government should undertake insurance in those cases where an efficient market has failed to emerge. To approximate an optimal state, it would be necessary to have collective intervention in the form of subsidy, tax or compulsion. Akerlof (1970) observes that compulsory public insurance might produce an improvement over the market outcome.

Failures in markets for health insurance provide a rationale for government action to improve efficiency and equity. The inefficiencies

[1] This loss can result from government actions (taxes, price controls) or from market failures (externalities, market control).

derive mainly from information asymmetries and imperfect competition, and less from standard public goods and externality characteristics.

2.1 Asymmetric Information – Moral Hazard

One source of market failure is moral hazard where consumers tend to use more of a service when its marginal cost to them decreases. It arises because of uncertainty and because insurers cannot fully monitor consumers' behaviour and make them responsible for their decisions (World Bank, 1993). Feldstein (1973), Zeckhauser (1970), and Pauly (1968) show how asymmetric information at the "ex post stage"—that is after an insured event has occurred—can reduce the efficiency of equilibrium insurance contracts. This moral hazard occurs when insurance contracts are written on the basis of endogenous-incurred expenses and not on the basis of exogenous health needs. This kind of insurance leads to over-consumption of care, the distortionary costs of which are offset by reducing the level of insurance.

A similar inefficiency results from "ex interim" moral hazard, when precautionary actions can be taken after the insurance contract is signed, but before uncertainty is resolved. In this case, the inability to make insurance contracts contingent on such actions reduces the optimal level of insurance. In both cases, the individual is second-best optimally exposed to some risk.

Within a partial equilibrium model, neither source of moral hazard argues for public intervention, unless one assumes that the government has better information than private insurers. On the other hand, Greenwald and Stiglitz (1986) show that, taking a general equilibrium approach, there may be a role for government intervention even when the government does not have information advantage vis-à-vis private insurers. Their argument is that, through its powers of taxation and subsidization, the government can encourage desirable ex interim actions

by altering the prices of goods and services that have non-zero cross elasticities of demand with such actions.

2.2 Asymmetric Information – Adverse Selection

Individuals face different risks and therefore pay different premiums. As premiums increase, there is an adverse selection effect, which is another source of market failure. Stiglitz (2000) observes that insurance firms actively attempt to increase the quality of those they insure in several ways. First, they often will not provide insurance for pre-existing conditions. In some cases, they will simply refuse to insure those with a bad health history. Secondly, they may impose limits on the extent of coverage. Thirdly, they may concentrate their selling efforts in low-risk communities. Adverse selection occurs in markets when information is held asymmetrically at the date of contracting. A competitive insurance market in a population with heterogeneous ex ante risk characteristics may perform inefficiently if insurance contracts cannot be differentiated on the basis of these risks.

When only a single insurance policy is available, Akerlof's (1970) lemons problem may emerge, with a proportion of individuals choosing not to purchase insurance. On the other hand, if multiple contracts are available, it becomes possible for insurers to charge low-risk individuals lower prices even when risk characteristics are unobservable. All individuals will have some insurance in equilibrium (Rothschild and Stiglitz, 1976) but two problems may arise. First, the good risks will not have full insurance, and second, equilibrium may not exist.

Evidence of lemons-type of equilibrium (in which a fraction of the population is uninsured) has been provided in a number of studies (e.g. Cutler and Zeckhauser (1997), and Cutler and Reber (1998). The relevance of the Rothschild-Stiglitz equilibrium is possibly more debatable, since it is typically high-risk individuals who have trouble obtaining full

insurance against health risks, and not low risks, as their model suggests. However, since risk is correlated with other determinants of insurance coverage (such as income, education, etc) it is probably not prudent to dismiss the underlying model.

Government intervention cannot easily correct these market failures. In both models, universal and uniform coverage can be mandated, but the resulting resource and risk allocations are not Pareto-comparable with the initial equilibrium.

2.3 Imperfect Competition

In insurance markets with information asymmetries, competition may sometimes have negative effects on allocative efficiency. For example, when insurers are faced with a heterogeneous risk population they will have incentives to sell policies only to low-risk individuals, that is those individuals to whom it is cheap to provide insurance. If they cannot offer different policies to different risk types, then they may lower the quality of the policies they sell in order to make them sufficiently unattractive to high-risk individuals. This kind of selection incentive might suggest public intervention to control the extent, or at least type, of competition in the insurance market. This effect can be referred to as active selection—the selection by firms, because of their policies, of good risks as opposed to adverse selection—the selection by firms, in spite of their policies of bad risks.

2.4 Consumer Protection

One response by insurers is to try to improve the information they have about consumers, by undertaking "utilization reviews"—essentially checking that doctors are not providing "too much" care. In order to motivate doctors, insurers may indeed give them stakes in the insurance company, converting it to a managed care organization. Such an

organizational design is efficient, as long as the information asymmetry is removed. In practice, the physician is the primary source of this information such that he or she confers an information advantage on the patient vis-à-vis the insurer when acting as the patient's agent. However, when acting for the insurer, the physician may put the patient at a disadvantage, and warranted treatments could be withheld. The usual competitive forces that induce firms to maintain high quality healthcare may not work well in this situation, and quality of care could suffer. Therefore, the government is bound to come in for the protection of consumers.

2.5 Lifetime Insurance

Healthcare insurance markets often do not provide lifetime insurance. Since individuals' health needs exhibit a degree of autocorrelation, insurance that is fair only on an annual basis exposes the individual to a high variance of medical costs over the lifetime. Part of the reason why it is difficult to provide lifetime insurance is that the future development of medical care prices is itself uncertain, due mainly to the vagaries of technological and epidemiological dynamics. These components of risk are systemic and cannot therefore be easily insured against (except intertemporally, across generations). The government faces the same constraints as private insurers in terms of the nature of the systemic risks, but may be in a better position to facilitate intergenerational trades due to its power of taxation.

2.6 Equity

At a conceptual level, having high medical needs, or being at high risk of needing medical attention, reduces an individual's available budget set. Consequently, the government may wish to redistribute resources between individuals with identical money incomes. In practice, the

redistribution from healthy to sick is often attempted by imposing uniform prices for health services and for health insurance across individuals. Charging of uniform prices for doctor visits is of course not redistributive if the sick must visit the doctor more often than the healthy (Jack, 2000).

On the other hand, in the presence of health risks and income differentials across the population, governments may wish to have a mixed public/ private system of insurance in which the government provides or mandates a given base level of insurance, and individuals are permitted to top up their coverage through private purchases. For example, Besley and Coate (1991) have shown that public provision of insurance can be used as a redistributive tool as long as individuals have access to supplementary private coverage.

Due to the market failures and equity issues discussed above, the government has a role to play in the health insurance industry. One of the ways that the government intervenes in the industry is through social health insurance. It is therefore important to understand what social health insurance is, the general characteristics, and the guiding principles in considering social health insurance.

3. Social Health Insurance[2]

3.1 General Characteristics of Social Health Insurance

A health insurance scheme is social when it subsidises the poor, the elderly and the sick, and when it promotes equity and access to everyone and not for profit. The core values in social health insurance embody a concern for the plight of the poor. In social insurance financing, health services are paid for through contributions to a health fund. The most common basis for contributions is the payroll, with both the employer and the employee commonly paying a percentage of the salary. In general, membership to social health insurance schemes is mandatory, although it can be voluntary to certain groups, such as the self-employed. The health fund is usually independent of the government but works within a tight framework of regulations. Premiums are linked to the average cost of treatment for the group as a whole, not to the expected cost of care for the individual.

While there is no universally accepted definition of what "social insurance" is, Kraushaar and Akumu (1993) outline some broad characteristics, which are generally agreed upon. These are:

- Coverage is generally compulsory by law;
- Eligibility for benefits is derived from contributions having been made to the programme;
- The benefits for one individual are not usually directly related to contributions made by that individual but often those benefits aim to redistribute income between different income groups. This redistribution is usually from the rich to the lower income groups or

[2] Section 3 borrows heavily from Conn and Walford (1998) and Normand and Weber (1994).

from those with few to those with many dependants. Equity of benefits regardless of payment is the rule;

- There is generally a plan or the financing of benefits that is designed to be adequate in the long term;
- Governments manage nearly all such social insurance organizations; and
- Revenues go fully and unchallenged to health and are not controlled by the treasury in a given country.

What is the rationale for health insurance in a low-income country like Kenya? Conn and Walford (1998) explain that there are three arguments that are made in favour of health insurance:

1) Attracting additional money for health;
2) Getting better value for money; and
3) Improving the quality and targeting of healthcare.

First, health insurance is attractive because it is perceived as additional source of money for healthcare. Additional resources may be available through insurance because: 1) consumers are more enthusiastic about paying for health insurance than paying general taxation as the benefits are specific and visible; and 2) consumers are more able and prefer to pay regular, affordable premiums rather than paying fees for treatment when they are ill. However, since insurance usually at least partially replaces payments through other mechanisms—tax or fees—it is important to check whether in fact the insurance will result in more funding for health, once administration costs and collection difficulties are taken into account (Conn and Walford, 1998).

Conn and Walford (1998) extend their arguments further to indicate that there may be flaws in the arguments made in favour of health insurance, such that the advantage of insurance may not be realised. These are that:

- In a poor country, it may be unrealistic to aim to attract additional money because of the absolute scarcity of resources—people cannot afford to pay more towards their healthcare because of poverty. In Kenya for instance, 56 percent of the population lives below the poverty line. Therefore, this group may not raise even the basic cost of healthcare, leave alone increasing more resources towards healthcare.
- The high costs of insurance administration and the difficulty of collecting payments are crucial issues in low-income countries. This is partly because there may be weaknesses in the infrastructure and management capacity. Also, the population is often in informal employment or in agriculture and scattered geographically, which makes it more expensive to collect premiums. In Kenya, about 74 percent[3] of those employed are in informal employment. Therefore, collecting contributions from them will be difficult, given the already existing problem of collecting taxes from this group. In addition, the population in some regions is sparse and scattered, therefore raising the administration cost and the opportunity cost of time.
- Whether insurance is a more secure and sustainable source of funding than general taxation depends on a number of factors, including fluctuations in employment, the nature of the labour market and the state of the economy in general. These factors may be particularly problematic for low-income countries. In Kenya, there are a lot of employment fluctuations with people moving in and out of employment, and casual labour. This implies inconsistency in contributing towards NSHIF. In the year 2003, the Kenyan economy was growing at a rate of 1.5 percent. The low economic growth coupled with the fact that majority of the working population is in

[3] See Republic of Kenya (2003b).

the informal sector raises the question of the sustainability of a social health insurance scheme.

- To realise efficiency gains, there is need for a sophisticated management infrastructure for establishing and managing contracts, monitoring service use, avoiding fraud, introducing performance measures and regulating providers. In low-income countries, management and regulatory capacity may be weak and would take time to develop. In Kenya, the government expects to rely on the already established administrative structure of the NHIF, whose administrative costs are over 25 percent.
- Insurance tends to make healthcare more expensive because of the behaviour of providers and members. Knowing that costs will be met from insurance, doctors may provide inappropriate or unnecessary care or raise their prices, and therefore push up the cost of services. Members are likely to use health services more often and expect more treatment.
- Insurance can encourage the growth of hospital services in urban areas and of high technology care than in rural areas because it is easier to manage insurance, and is more profitable. This may be inappropriate use of health resources in Kenya where basic services for rural residents are still inadequate.

However, social health insurance can still be a useful tool for channelling resources into high priority use and improving the efficiency of service provision. In assessing the appropriateness of social health insurance, Normand and Weber (1994) pose a few questions that should be asked:

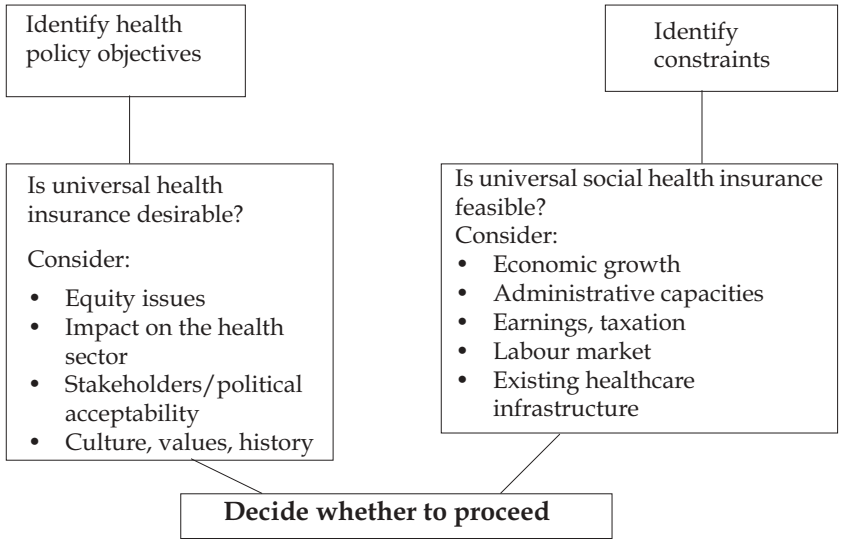
1. Should spending on health services have a higher priority than at present? If so, can the country afford a higher level of expenditure on heath services?

2. Would a change to national social health insurance, with its greater visibility of resources for health services, lead to more efficient use of the existing spending?

The first step therefore is for the government to investigate whether universal health insurance is appropriate at the current stage of development of the health system and the economy. Figure 1 below sets out a framework for deciding its appropriateness. It identifies two main criteria:

- Desirability in relation to national health goals and the policy environment; and
- Feasibility taking into account possible practical constraints to implementation, such as high administrative costs and inability to meet entitlements.

Figure 1: National health insurance: Decision phase



3.2 Desirability of Social Insurance

As outlined in the figure above, to consider whether social health insurance is desirable, there is need to consider issues related to equity, the impact on the health sector, stakeholders and political acceptability, and culture, values and history of the people.

Equity issues

Will social insurance facilitate improved access[4] to services for the poor? When coverage by social health insurance is universal, then inequities due to differences in insurance status should not arise and the poor should benefit from the scheme as much as the affluent. However, there is evidence to suggest that even then there may be differences in access between the poor and the rest of the population. For example, the Korean government successfully expanded its system of social health insurance to the entire population and there was concurrent expansion in healthcare facilities and health staff to meet the increased demand. Nonetheless, the poor, the elderly, and those who live in rural areas still have lower access to healthcare due to the misdistribution of both health staff and facilities, which tend to locate in urban centres where there is greater demand and ability to pay (Bennet and Gilson, 2001). Likewise, in Kenya, the distribution of health facilities is skewed in favour of urban areas, implying that the poor, who live mainly in rural areas, will not benefit from social health insurance equally with their urban counterparts. The

[4] Distance or time taken to reach health facilities is an important indicator of accessibility. Appendix table 3 shows that for the nearest qualified doctor, most (54.7%) of the poor take over one hour. Very few poor people (1.2%) live close to the nearest qualified doctor's office. A similar pattern is shown among the non-poor. Also, majority of both the poor and non-poor take 10-30 minutes to reach the nearest dispensary, while majority of both the poor and the non-poor take over one hour to reach the nearest hospital. Generally, there is an enormous divide between rural and urban areas in terms of time taken to access a qualified doctor, a dispensary or a hospital.

key issue is whether social insurance can be designed in ways that help to achieve national health goals.

Impact on the health sector

Additional resources arising from an expanded healthcare system should enable an increase in the volume of healthcare, improved standards, more appropriate services and increased coverage. The important question is whether there are sufficient healthcare inputs to meet the increased demand generated by the new scheme? In the Kenyan case, since the scheme is demand-creating, the number of those seeking healthcare will increase. If this increase is not accompanied by increase in the number of health practitioners, then quality of health services is likely to be compromised as a result of higher workload leading to increased risk of professional mistakes and professional risk. Another impact on the health sector is conflict of interest between professional and financial needs especially where treatment cost is likely to be higher than the expected reimbursement. Therefore, a good social health insurance system should bear in mind the likely impact on the health sector.

Stakeholders and political acceptability

Will there be resistance? Various interest groups have a voice in the health insurance debate in Kenya. First, the government views the scheme as a way of increasing and earmarking resources for health. However, social insurance will only increase resources if other funding sources are maintained and the costs of administration are not too high. Second, health professionals will be keen to have their salaries improved and professional opportunities increased. However, if the additional funds are absorbed by higher pay then there will be limited impact on the health objectives. Third, many donors are keen on insurance, partly because they have experience of it in their own countries as a funding mechanism for health, and because they anticipate benefits in terms of

efficiency. Fourth, the population who will be insured (e.g., those in stable employment) will support the proposals if they believe the health services they use will improve in quality and/or cost less than direct fee payments. Finally, private insurers may oppose a well-regulated social insurance scheme. Private health insurers are already a large and influential group.

Historical or cultural conditions

Are Kenya's historical or cultural conditions conducive to introduction of social insurance at present? Are there other factors that would affect prospects for insurance? In Mongolia, for example, it has been difficult to identify many of those people in nomadic ethnic groups for contribution purposes, because they move around so frequently. This is also likely to be a problem in Kenya, especially in Arid and Semi-Arid Lands (ASALs). Another example is from Senegal where people used to put money aside for unpredictable events like marriages and funerals, but they believed that saving money for eventual healthcare costs meant 'wishing oneself the disease'.

3.3 Feasibility of Social Insurance

To measure the feasibility of social health insurance, it is necessary to consider whether the trend of economic growth can support and sustain the scheme, the administrative capacity of the scheme, earnings and taxation, the characteristics of the labour market, and the existing healthcare infrastructure.

Economic growth

Economic growth influences or has direct effects on many economic variables. These include investment, employment, interest rates, and the general price level in the economy. With low economic growth levels, the income per capita of households is negatively affected, therefore

influencing the opportunity cost of spending. In Kenya, where economic growth is slow and incomes are low, the introduction of universal health insurance might have little impact in mobilising additional resources. Economic growth was one pillar that led to the success of a national health insurance in Korea.

Administrative capacity

Insurance arrangements tend to be more complex and more expensive to administer. The scheme will require contracts between third party institutions and service providers; systems for assessing incomes and collecting contributions; systems for making agreements with providers, paying them and monitoring their performance; and information systems for recording payments, details of individual contributors and service providers, and management of the insurance fund itself. It is critical to assess the costs of setting up and running these systems and whether there is the capacity and skilled staff to manage them. However, administration costs are smaller for state-administered healthcare.

Earnings/taxation

Typically, social insurance is provided through a system of payroll contributions calculated as a percentage of income. This is normally split between employer and employee. A key question is whether the contribution rate required to fund services would be acceptable. The contribution rate required at current salary levels can be estimated based on estimated service costs for a family per year. If most salaries are low, it may require an unrealistically high proportion of salaries to fund a reasonable level of services.

In Kenya, the payroll is already a major source of taxation—income tax, pension contributions, among others. Since payroll deductions are already high, then it may not be advisable to use this source for further deductions. Payroll contributions may not be the best source of funds

for healthcare. Several arguments have been advanced on this. First, further payroll charges may discourage employers from retaining or taking on staff, therefore reducing employment. Second, they could also deter investors. Third, in the event of recession, revenue to the social insurance fund may fall as unemployment rises. Employment-based contributions can therefore be a less stable source of funding than general tax revenue. Fourth, if government is the major employer, the government budget will be the main source of funding for the health insurance scheme, raising public sector running costs.

At this point, it is worth asking two questions:

1) What is the current level of deductions from the payroll, and is it advisable to impose further charges?

2) What is the current level of unemployment, and is it advisable to risk introducing a measure that may increase it further?

If the answer to these questions is "no", then there is no point in considering social health insurance further at this stage, unless the burden of taxation can be moved to another base.

Labour market

In Kenya, most people work in the non-formal and agricultural sectors (74.2%). Since their incomes are variable, regular payments are a problem and income assessment is difficult. It is more difficult and expensive to operate a contribution system under these conditions. In addition, since casual labour is common (where people move in and out of formal employment), this makes collection more difficult and entitlement of individuals hard to define.

In addition, although it is difficult to assess contributions from any self-employed person, there are particular problems with people working in agriculture. Farmers have the additional problem that incomes are very uneven over the year. A large proportion of their income may be realised

in a few weeks and so they will have difficulty in paying regular weekly or monthly contributions.

Analysis of the structure of the labour market leads to an important consideration: the size of the formal sector relative to the informal sector, and the cost of collecting health fund contributions. If the formal sector is larger, and it will be possible to collect funds from the informal sector at reasonable cost, then a system of social health insurance covering the whole population is feasible at this stage with the formal sector as the main source of revenue for health services.

Existing healthcare infrastructure

Appendix table 5 shows the size of healthcare facilities by province in Kenya. Does a health service infrastructure exist to provide the services to which insured people are entitled? Will the fund be able to offer advantages to members without denying access to emergency and essential care for the rest of the population? Health insurance gives the insured population entitlement to services. It is therefore important to ensure that the health infrastructure exists to provide those services.

In general therefore, the decision on whether to introduce universal health insurance should depend on the assessment of desirability and feasibility of the scheme. If conditions are favourable, the government should proceed with the decision to set up a social health insurance. If the conditions are not suitable, then the choice is between taking steps to overcome the constraints and deciding not to proceed with the universal health insurance at this stage. The core question is whether the advantages of having a universal health insurance fund outweigh the extra costs of setting up such a system. This requires assessment of the additional revenue to be raised and other potential benefits against the administrative costs of establishing and running the system.

3.4 Removing Obstacles

From the above analysis, it is clear that not all conditions for feasibility and desirability are suitable for universal social health insurance in Kenya. Therefore, it is important to identify existing obstacles and see how they can be removed.

Economic growth: The Kenyan economy has been performing poorly over the years. It may therefore be necessary to wait until policies to generate growth and development have led to a higher income per capita and therefore to the possibility of devoting a higher proportion of the country's resources to healthcare. Before embarking on provision of healthcare to its entire population, Korea first worked on her economy. She had 5-year economic development plans between 1962 and 1977 before emerging from absolute poverty to become one of the most successful countries among developing countries. From 1977 therefore, Korea had the capacity and the confidence to start health insurance for the whole population, which succeeded in 1989.[5]

Employment and the labour market: Kenya has a high proportion of self-employed people. It is therefore important to consider which type of contribution base will work best. It is possible to accept payment in surplus produce rather than a regular financial contribution. However, it may take some time to find a suitable mechanism for raising charges on this type of group.

Preparing the administrative infrastructure: Two types of preparations are needed to ensure a suitable administrative infrastructure: training staff and setting up structures and procedures. The skills needed to administer a system of social health insurance are different from those used in other types of health service management and financing. Staff need to be

[5] The average rate of economic growth for Kenya between 1999-2003 was 1.2% while that of Korea averaged 5% during the implementation period of the country's social health insurance scheme.

equipped to manage the collection of contributions, support the process of identifying entitlements, arrange for access to the services to which members are entitled, and monitor the quality and appropriateness of care. In Kenya, there should be heavy reliance on the already existing NHIF staff.

Preparing the health services: One objective of social health insurance is to improve access to health services. Early action may be needed to ensure that the services to which insured people are entitled are available, and in places where they can easily gain access. Appendix table 3 shows that accessibility is a real problem. Most people take more than one hour to reach the nearest qualified doctor and hospital and more than 30 minutes to reach the nearest dispensary. One of the reasons given for not using medical care when sick is that the facility is too far (Appendix table 4). Appendix table 5 also shows that there are regional disparities in the distribution of health facilities. This implies that accessibility is a problem especially in some regions. Development of health services can be done directly, with government building the facilities, training the staff and buying the equipment, or indirectly, with the government encouraging development of health services by private and non-governmental bodies.

*Payroll deduction*s: If social health insurance is to be funded by a charge on the payroll, then it is important to consider the effect this can have on the overall level of deductions. One approach is for those in the formal employment to continue contributing at the same rates, especially at the initial stages. This will avoid the problem of people appearing to pay more. With time, it may be possible to increase the level of contributions for social health insurance in line with development of the economy and in the entitlement to services.

4. Health Insurance in Kenya

Health insurance in Kenya has been provided by both private and public systems. The main objective of the health systems has been to insure Kenyans against health risks that they may encounter in future.

4.1 Private Healthcare Insurance

Health insurance is considered private when the third party (insurer) is a profit organisation (Republic of Kenya, 2003a). In private insurance, people pay premiums related to the expected cost of providing services to them. Therefore, people who are in high health risk groups pay more, and those at low risk pay less. Cross-subsidy between people with different risks of ill health is limited. Membership of a private insurance scheme is usually voluntary.

Private health insurance has been offered by general insurance firms, which offer healthcare insurance as one of their portfolio of products. Therefore, their intention may be driven by the profit motive as business enterprises rather that the pursuit to promote the general health of Kenyans.

Wang'ombe *et al* (1994) identify two categories of private health insurance in Kenya: direct private health insurance and, employment-based insurance. Direct private health insurance is very expensive and only the middle and high-income groups afford it (Nderitu, 2002). In the employment-based plans, the employer provides care directly through employer-owned on site health facility, or through employer contracts with health facilities or healthcare organisations. These are both voluntary health schemes and are not legislated by the government.

According to Techlink International Report (1999), few firms provide healthcare insurance in the strict sense of insurance in private healthcare insurance in Kenya. The general insurance firms offering healthcare

insurance as one of their portfolio of products include American Life Insurance Company (ALICO), Apollo Insurance, GMD Kenya, Kenya Alliance Insurance Company Ltd, and UAP Provincial Insurance. Other firms run medical schemes and they are in two categories: the first category provides healthcare through own clinics and hospitals (these include AAR Health Services, Avenue Healthcare Ltd, Comprehensive Medical Services, Health Plan Services), while the other category provides healthcare through third party facilities (examples are Bupa International, Health Management Services and Health First International). These medical schemes are also known as Health Management Organisations (HMOs).

HMOs are registered as companies under the Companies Act. The concept originated in the US, where HMOs also help the government to disseminate preventive messages to the public. They were introduced in Kenya a decade ago in response to a 1994 Government call on the private sector to assist in medical care. HMOs are filling a vacuum left by the public health insurance scheme.

In HMOs, the patient pays a fixed annual fee, called a capitation fee, to cover the medical costs. Members of a HMO must go to the doctors of that HMO. In addition, to see a specialist, their HMO family doctor must refer them. HMOs have grown rapidly especially in the last few years, especially among those who are covered by employer-provided health plans, mainly because they have helped contain cost increases.

4.2 National Hospital Insurance Fund (NHIF)

The NHIF was established by an Act of Parliament in 1966 as a department in the Ministry of Health, which oversaw its operations, but responsible to the government Treasury for fiscal matters. The Fund was set up "to provide for a national contributory hospital insurance scheme for all residents in Kenya." The Act establishing the NHIF

provided for the enrolment in the NHIF of all Kenyans between the ages of 18 and 65 and mandates employers to deduct premium from wages and salaries. The level of contribution is graduated according to income, ranging from Ksh 30 to Ksh 320 per month (Appendix Table 1). Contributions and membership are compulsory for all salaried employees earning a net salary of Ksh 1000/month and above. The Fund covers up to 180 inpatient hospital days per member and his/her beneficiaries per year. Besides being self-financing and self-administering, the Fund monitors its own collections and distributes benefits to providers. The NHIF Act also provides for the Fund to make loans from its reserves to hospitals for service improvement.

To improve on the delivery of services, the government amended the NHIF Act in 1998 to make the Fund a state corporation. The NHIF Act of 1998 transformed NHIF from a government department to an autonomous parastatal. The apex of NHIF is no longer the Ministry but a Board of Directors. The Fund was given the task of enabling as many Kenyans as possible to have access to quality and affordable healthcare against a background of rising medical costs and a dwindling share of resources.

According to the amended NHIF Act, beneficiaries are both in-patients and outpatients (section 22 of NHIF Act, 1998), but outpatient services are not yet operational. NHIF Management Board pays benefits to declared hospitals for expenses incurred at those hospitals by any contributor, his/her named spouse, child or other named dependant. According to the NHIF Act, the benefits payable from the Fund are limited to expenses incurred in respect of drugs, laboratory tests and diagnostic services, surgical, dental, or medical procedures or equipment, physiotherapy care and doctors' fees, food and boarding costs (Republic of Kenya, 1999). In practice the NHIF only pays for the cost of bed occupancy. A member cannot claim benefit from the Fund if he or she is entitled to compensation for hospitalisation and illness from another

source (section 36) such as the Workmen's Compensation Act (Chapter 236 of the Laws of Kenya).

All NHIF approved facilities (hospitals, maternity homes and nursing homes in the public, non-governmental organisations) are reimbursed a flat rate per day irrespective of the type of ailment. In order to qualify to make claims from the NHIF, the Ministry of Health, acting through the agency of the Medical Practitioners and Dentists Board, must first approve inpatient facilities. Facilities are thereafter inspected by the NHIF and approved if the minimal conditions are met.

The criteria used in determining the reimbursement rates for these hospitals are based on facilities available. These include X-rays, Intensive Care Unit (ICU); overall area occupied; separate wards for children, males, females; isolation wards; number of doctors, nurses and clinical officers; supply of electricity and availability of standby generators; ambulances, pharmacies, laboratories, operating theatres, among other requisite facilities. Those with most facilities attract maximum rebates of Ksh 2000 per day, whereas those with the lowest level of facilities are placed at a rebate of Ksh 400 per day. Kenyatta National Hospital and Moi Teaching and Referral Hospital are considered special hospitals and are granted a reimbursement rate of Ksh 2000 per day per person.

Until recently, the NHIF was highly centralised in Nairobi, where all claims were processed. Health facilities in the rest of the country were required to make monthly trips to Nairobi to pursue claims. The transaction costs were therefore very high and unfavourable to its members and healthcare providers. NHIF has now decentralised claims processing to area offices to facilitate a shorter and more effective system that will allow speedy reimbursement of medical claims. The Fund has so far opened 28 branches across all provinces, and in both rural and urban areas. It has also introduced simplified procedures for processing claims and established a members' database. The process of making

claims has also been computerised. This has made it easier for the members and about 400 accredited health providers to make claims at a relatively low cost.

At present, the NHIF suffers from a variety of problems, which impair its role as a successful risk-sharing scheme. Among these problems are reimbursement polices, which have encouraged growing lengths of stay at the hospitals (especially private hospitals), increased value of claims, and expansion of the private-for-profit sector. In addition, the overall rapid and uncontrolled growth of approved facilities for reimbursement purposes has led to rapid expansion of claims, both appropriate and fraudulent, from these facilities (Kraushaar and Akumu, 1993).

Another problem has been uneven distribution of payment at different categories of hospitals, which was noted as far back as 1989 (Alexandre and Franey, 1989). Reimbursements are skewed in favour of private hospitals and nursing homes rather than government or mission facilities. For instance, during the financial year 1987/88, private hospitals, nursing and maternity homes accounted for 26 percent of approved facilities but received 58 percent of all NHIF reimbursements. One of these 26 facilities was reimbursed 15 percent of all reimbursements made to this category of facility. Community and missions hospitals represented 30 percent of the total NHIF facilities and accounted for 40 percent of claims while government hospitals were reimbursed only two percent of total claims even though they made up 44 percent of all NHIF-approved facilities. Government facilities also had the lowest daily reimbursement rate.

This uneven distribution of claims and payments results in almost 95 percent of all NHIF reimbursements going to private sector institutions, therefore depriving many well-managed government institutions of badly needed cost sharing revenues. It reflects a reverse subsidy from the less well-off, who contribute most, to the wealthy, who can better

afford private sector services (Republic of Kenya, 1996). While attempts have been made to improve the process of making claims from government facilities, the big disparity is primarily due to the fee structure in government hospitals and the incentive system used.

Berman *et al* (1995) observe that the criterion on which NHIF establishes reimbursement rates for health facilities has perverse incentive effects on providers. Because the reimbursement rate is dependent on, among other things, the bed capacity of the facility, private providers have an incentive to either expand capacity or to misrepresent their capacity to be assessed a higher reimbursement rate. Others have simply changed their name from hospital to nursing home, therefore qualifying for a higher reimbursement level. This calls for clear guidelines on what facilities qualify for reimbursements.

The stated philosophy of the Fund is that benefits should not be related to contributions and that the basic dictum: "From each according to his ability and to each according to his need" should apply. There is evidence, however, that there may be a reverse cross-subsidy from the poor to the wealthier (Akumu, 1992). This mainly happens because of the disparity in the distribution of health facilities and personnel. Most health facilities and personnel are located in urban areas, where most of the non-poor live. As Kraushaar and Akumu (1993) indicate, a reverse cross-subsidy from the poor to non-poor is harmful. In social insurance organizations, there should be a degree of desired cross-subsidy from those with higher incomes to those with lower incomes, from those healthier to those with health problems, and from smaller to larger families.

Though the NHIF is meant to be a health insurance scheme after the amendment of the NHIF Act in 1998, it is still a hospital insurance scheme since it only pays for inpatient services only. Currently, NHIF pays more than half of a typical inpatient bill in private-for-profit sector in urban areas. Although benefit rates have been increased since the onset of the

cost-sharing programme, the Fund's reimbursement levels remain a small proportion of the total costs of care in many for-profit facilities. In addition, the fee structure provides few incentives for improved quality of healthcare providers.

NHIF does not have a mechanism for members to influence its decisions. The Board, which manages NHIF, does not have representation from grassroots level and members who contribute to the Fund therefore have no say on the management of finances and the running of the Fund. Employers and beneficiaries of NHIF claims and reimbursements are dissatisfied with the services provided by the Fund, and perceive it as bureaucratic and inefficient, and its medical coverage wholly inadequate in the face of increasing healthcare costs.

In light of the above issues, the Government of Kenya has proposed to transform the NHIF to a National Social Health Insurance Scheme. The relevance of NHIF has been questioned in the light of access and affordability of healthcare for the poor, together with its coverage. Besides the intention of correcting the failures and weaknesses of the NHIF, the proposed scheme is supposed to address fundamental concerns regarding equity, access, affordability and quality in the provision of health services in Kenya.

4.3 Proposed National Social Health Insurance Fund

Principles

The Ministry of Health has designed a mandatory social health insurance scheme, which seeks to transform the NHIF into a National Social Health Insurance Fund (NSHIF) to provide health insurance cover to both outpatients and inpatients. The main objective of the Fund is to facilitate the provision of accessible, affordable and quality healthcare services to all its members irrespective of their age, economic or social status (Republic of Kenya, 2003c).

The scheme will be guided by a number of principles:

i) The NSHIF shall contribute to the vision of the Ministry of Health to create an enabling environment for the provision of sustainable quality healthcare that is acceptable, affordable and accessible to all Kenyans.

ii) It will be compulsory for every Kenyan and every permanent resident to become a member through enrolment and payment of a subscription.

iii) Since not everybody is deemed to be able to pay contributions to the NSHIF, it is the policy of the government to subsidise the poor by earmarking at least 11 percent of the total expected revenue from consumption taxes to be paid into the NSHIF.

iv) A community spirit of solidarity will guide NSHIF. It must enhance risk sharing among income groups, and persons of different health status, and residing in different geographical areas.

v) The NSHIF shall build on the existing community initiatives for registration procedures, contribution collection and human resource requirements.

vi) The NSHIF shall balance economical use of resources with quality of care. It shall provide effective stewardship, fund management, and maintenance of reserves.

vii) All the money received through contributions and other means minus minimum administrative costs and reserves shall be returned to the insured in the form of improved health service provision. However, initially, members will have to wait for a year before accessing outpatient services as the Fund accumulates resources. The poor will also not benefit until admitted in hospital (the lowest units will be accredited initially).

viii) The NSHIF shall assure that all participating healthcare providers are responsible and accountable in all their dealings with the Fund and its members.

Like the NHIF, the proposed NSHIF will be an independent, autonomous, statutory body with corporate personality. The Fund will be established under the National Social Health Insurance Fund Act to be enacted by Parliament. The Fund is expected to benefit from the network already established through the NHIF. It is proposed that the Fund will have grassroot representation from the village level, with the lowest level being the sub-locational committee, which will be composed of one person from each village. The sub-locational committees will in turn democratically elect one person to the district council, which will democratically elect two representatives to the national council. The national council will elect its office bearers, and the regulations will give procedures for election.

The draft proposes that the government, through National Social Health Insurance and general taxation, carries 75 percent of the national health expenditure burden while the private health insurance carries 25 percent (Republic of Kenya, 2003d). However, it will be compulsory for every Kenyan and every permanent resident to become a member through enrolment and payment of a subscription either monthly or annually, or as may be deemed convenient to different socio-economic groups. Subscriptions for the poor will be paid for with funds from the government and other sources.

Those in the formal sector will pay subscriptions at a proposed rate of 2.9 per cent of their salaries through the payroll, with the employers matching the contributions of employees while collection points will be identified for those in the informal sector with heavy reliance on organised groups such as co-operative societies, matatu owners' associations and "jua kali" artisans organisations.

Likely Implications of the NSHIF

The development of the NSHIF will have far reaching implications on the entire health sector and country in general. This section highlights the potential implications.

Employers

For the employer, the decision to employ a worker depends on the overall cost of wages and other payroll costs. If these costs are too high, this may have the impact of reducing employment since employers will also pay contributions. Employers may in the circumstances also shift the burden to the employee by paying lower wages than they would have paid in the absence of employer contributions. Employers may also respond by employing casual staff or employ on short-term contracts, therefore eroding further the revenues of NSHIF.

Employees

Membership to NSHIF will be compulsory and contributions will be deducted from their income. For the employees, the main areas of interest are the take-home pay and other benefits. Employees will lose their private medical cover as employers may opt to only contribute to compulsory schemes. With the proposal to deduct 2.9 per cent of the employee's salary for NSHIF, this may affect the take-home and as a result, there is likely to be some resistance. This is despite the fact that our earlier analysis shows that acceptability is crucial for the success of a social health insurance. In addition, formal sector employees will pay more despite the fact there are those in the informal sector who earn significantly more than those in the formal sector.

Trade unions

The interests of their members are affected and because they will not want to lose their influence over any labour issue, there might be some

opposition. For instance, the university lecturer's union and the Kenya National Union of Teachers are opposed to the scheme because it will affect their medical allowances and therefore their take home.

Healthcare providers

Healthcare providers will be subject to payment regulation and quality control. For hospitals to qualify for reimbursements, they will need to meet some standards, which may have some financial implications on the hospitals. Also, there is likelihood of high administrative costs in claims. There may also be financial distress and cash flow strains if NSHIF does not reimburse promptly.

Existing healthcare schemes

Existing organisations such as health insurance schemes for certain population groups or private insurance may fear abolition or loss of customers. Companies that provide medical cover for their employees might be unwilling to continue paying for private medical cover for their employees if the employers will now be contributing to NSHIF. This therefore means that private insurance companies may lose some of their customers.

Budgetary implications

If the Ministry of Health is to improve the health infrastructure, then it has to turn to the Ministry of Finance for resources and this has budgetary implications on the Ministry of Finance. The Ministry of Finance will be expected to remit 11 per cent of VAT and excise tax, remit contributions for government employees, and find a way of filling the gaps left by those remissions, among other things. This may distort budgetary allocations to other ministries and may end up increasing government expenditure.

Challenges of Social Health Insurance in Kenya

Raising revenue from the informal sector

This is a critical issue if the scheme is to become universal. An important point is recognising the heterogeneity of the informal sector, composed of some quite rich groups and some very poor groups. This requires multiple scheme designs to suit different income groups of the informal sector as opposed to a blanket fits-all scheme. There is also a particular problem with enterprises struggling to remain in business. Obtaining further contributions from them may prove difficult. The government will have to take the difficult decision whether to obtain the contribution by force, possibly bankrupting the enterprises and putting many people out of work, or waive the contribution and set a bad example to other enterprises.

Coverage in rural areas

Covering the rural labour force is one of the greatest challenges in introducing national health insurance. Actual incomes are often easy to conceal through a multiplicity of jobs and subsistence farming. One possible approach is to collect contributions from the community using village officials. The officials can also be responsible for distributing health insurance cards and deciding on who should receive free health cards. This system has the advantage that local communities will often be able to gauge the ability to pay of households much better than higher tiers of government. A disadvantage is that contribution waivers may not always be given to those least able to pay; there is considerable scope for corruption and nepotism in the way exemptions are handed out.

Limited community understanding of insurance principles

The idea of insuring against risk is not well understood in Kenya and this undermines the sustainability of the proposed scheme. Among the Senegalese fisher communities, for instance, sustained payment of

premiums without benefit has been viewed as a loss, occasioning demand for refunds. Insurance of adult males who typically need less healthcare has also elicited similar disenchantment with insurance. Therefore, marketing and education to the informal sector is vital to encourage people to see the advantages of joining and for them to understand how insurance works.

Finding a way to handle HIV/AIDS

HIV/AIDS is a special case given the burden placed on health services by patients seeking treatment for opportunistic infections. It may not be financially viable to include expensive long-term treatments. One option could be to at least cover treatments that have been shown to be cost-effective, such as the provision of Anti-Retrovirals (ARVs) for the prevention of mother to child transmission of HIV.

Cost escalation

There is evidence that health insurance schemes can exacerbate cost escalation in a number of ways, including encouraging a large unregulated private provider market; encouraging overuse of health services by the insured; and by increasing the administrative costs in the health sector. To reduce problems associated with cost escalation, the following could be considered:

1) Maintain the system of co-payments to prevent members from overusing the services. However, in setting co-payment rates, it is necessary to bear in mind that indirect costs of time and travel—rather than treatment costs—are often the greater burden in seeking care for an illness by the poor. The rates should therefore be set with costs of time and travel taken into consideration.

2) Equalise benefits for all members. The benefits should be the same irrespective of whether one is poor or rich.

Identifying the poor

The practical issue of identifying the poor is a major consideration to reaching them. Issues of health services for the poor are more related to community approaches than through large, compulsory payroll funded social health insurance schemes. Village councils will play a major role in identifying the poor under the proposed scheme.

Will NSHIF Achieve its Intended Objectives of Access, Quality, and Affordability?

The proposed social health insurance scheme aims to create an enabling environment for the provision of sustainable quality healthcare that is acceptable, affordable and accessible to all Kenyans. Due to widespread poverty, there is need to reduce the healthcare burden of households. Given the current situation of healthcare in Kenya, we evaluate whether the goals of access, affordability, and quality are likely to be met under the proposed scheme.

Access

Access to healthcare is influenced by such factors as cost of medical care, time taken to health facilities, and availability of medical personnel among other factors. Therefore, in terms of cost, the introduction of NSHIF will see more poor people being able to access medical care as the government will subsidize the hardcore poor (about 30% of them) and other members who are not employed or are self-employed.

In terms of the time taken to the nearest health facility, access may be hindered unless the Ministry of Health ensures expansion of health infrastructure; the current distribution of these facilities indicates a large distance from one facility to the other (Appendix Table 3). The lack of equity in distribution of these facilities does not also promote equity in access (Appendix Table 6). Given that NSHIF resources would not go

into expanding facilities in the deficit areas, equity in access may not be met.

Access may also be hindered by the limited medical personnel. Given that NSHIF will not go into training of medical personnel, the objective of increasing access may not be realised. This implies that the Ministry of Health, which is charged with the training of medical personnel, may need to first do a lot of training to raise the number of medical professionals to the recommended WHO ratio per population served.

Quality

The quality of medical care is determined by the availability of medical facilities, qualified personnel, and the existence of adequate services. The NSHIF will only give contracts to those facilities accredited by the Ministry of Health. To this end therefore, the scheme will ensure quality of medical care. However, with the expected rise in utilization of medical care, it may be difficult to achieve this goal. First, there is likelihood of low quality services given the expected congestion in the few accredited facilities. Secondly, most public health facilities face bureaucratic problems, which make them inefficient. This includes not having medical supplies in time even where physical facilities like laboratories and operating theatres exist. Lack of such supplies compromise quality.

Affordability

One of the objectives of the NSHIF is to make medical care affordable. By charging Ksh 400 to informal sector employees and 2.9 per cent of the salary to the employed, the NSHIF would make healthcare affordable to most Kenyans and therefore meet one of its goals. The Ksh 400 seems affordable to many Kenyans as it implies an average of about Ksh 30 per month. However, an individual contributor is limited to only five visits per year. The contributor will be expected to pay at market cost for any extra visit. Besides, any extra expenditure over the entitlement will have to be topped up by the patient. This also limits the affordability potential

of the poor. Further, the poor may not benefit in the first few years under the proposed scheme because they will only be served at the dispensaries and health clinics. The government will only come in when critical cases are admitted in hospital.

5. Health Insurance Schemes in Other Countries

5.1 German Healthcare System

Health services in Germany are funded through compulsory contributions to health funds (normally referred to as sickness funds). These are non-profit making organisations operating either over a particular geographical area or for particular occupational groups. Although nominally independent, the system is tightly regulated by state governments. Money is reallocated between funds to take account of differences in the incomes and the risk profiles of their members. Self-employed physicians and a mixture of government and private hospitals provide healthcare. Coverage extends to almost the whole population. Employers and employees make contributions to the health fund, and are both represented on the boards of the funds.

Nearly everyone residing in Germany is guaranteed access to high-quality comprehensive healthcare. Since the Health Insurance Act was adopted in 1883, statutory health insurance (Gesetzliche Krankenversicherung—GKV) has provided an organizational framework for delivery of public healthcare and has shaped the roles of payers, insurance or sickness funds, healthcare providers, physicians, and hospitals. In 1885, the GKV provided medical protection for 26 percent of the lower-paid segments of the labor force, or 10 percent of the population. Health insurance coverage was gradually extended by including even more occupational groups in the plan and by steadily raising the income ceiling. Those earning less than the ceiling were required to participate in the insurance programme.

In 1901, transport and office workers came to be covered by public health insurance, followed in 1911 by agricultural and forestry workers and domestic servants, and in 1914 by civil servants. Coverage was extended to the unemployed in 1918, to seamen in 1927, and to all dependants in

1930. In 1941, legislation was passed to allow workers whose incomes had risen above the income ceiling for compulsory membership to continue their insurance on a voluntary basis. In the same year, coverage was extended to all retired Germans. Sales people came under the plan in 1966, self-employed agricultural workers in 1972, and students and the disabled in 1975.

Portability of coverage, eligibility, and benefits are independent of any regional and/or local reinterpretations by either insurers, politicians, administrators, or healthcare providers. Universal coverage is honored by any medical office or hospital. Check-ins at doctors' offices, hospitals, and specialized facilities are simple, and individuals receive immediate medical attention. No one in need of care can be turned away without running a risk of violating the code of medical ethics or hospital laws. This shows clearly that there is consumer protection.

The healthcare system has achieved a high degree of equity and justice, despite its fragmented federal organization. No single group is in a position to dictate the terms of service delivery, reimbursement, remuneration, quality of care, or any other important concerns. The right to healthcare is regarded as sacrosanct. Universality of coverage, comprehensive benefits, the principle of the healthy paying for the sick, and a redistributive element in the financing of healthcare have been endorsed by all political parties and are secured in the Basic Law, therefore addressing the equity issue.

Modest co-payments for medications, dental treatment, hospitalisation, and other items were introduced in 1982 for members of sickness funds. These payments were further increased by the Healthcare Reform Act of 1989 (Gesundheitsreformgesetz—GRG) and again by the Healthcare Structural Reform Act (Gesundheitsstrukturgesetz—GSG) of 1993. The GSG also introduced new regulatory instruments to more closely monitor access to medical practice, to reorganize sickness-funds governance, and to control medication costs and prospective hospital payments.

5.2 Health Insurance System in United States of America

The government of the United States intervenes in the healthcare industry through a number of separate programmes, in contrast to many other countries where the government provides universal medical insurance. Two main programmes, Medicaid and Medicare, provide government medical insurance for the poor and the elderly, respectively. A third important programme provides tax breaks for employer-paid medical insurance and healthcare spending for employees (Bruce, 1998).

Medicaid was created in 1965 and pays healthcare expenses of families with low incomes and without assets. In all states, covered services include acute care in hospitals, dental services, optometry, prescription drugs, and home healthcare in some states. Although federal and state governments share the cost of Medicaid, the programme is administered by the state, subject to federal guidelines.

Only people who are needy are eligible for Medicaid. The first group includes families who are eligible because they receive Aid to Families with Dependent Children (AFDC) and Supplement Security System (SSI) and children in families with income below the official poverty threshold. The second group includes people who are eligible for Medicaid under special rules—for instance, pregnant women with low incomes. States are required to provide a broader set of services to the categorically needy than to the medically needy. However, Medicaid does not offer recipients permanent or guaranteed medical insurance. If a family ceases to be eligible for say, welfare, it can lose its medical insurance.

Medicare is a federal programme that pays for hospital and healthcare services for people over age 65, people with disabilities, and people with severe kidney disease. The programme consists of two parts: Hospital Insurance, and Supplementary Medical Insurance (SMI). Hospital Insurance pays for care in an acute-care facility such as a hospital, a

skilled nursing facility, a hospice for the terminally ill, and in some cases the home. SMI pays for the physician's and laboratory-diagnostic services, except routine physical examinations. The medical insurance provided is not complete because both parts of Medicare require significant co-payments and deductibles. Also, long-term care in a nursing home is not covered, nor is the cost of prescription drugs outside an acute care facility. Most Medicare recipients purchase private insurance, called Medigap insurance, to cover expenses that would otherwise be out of pocket.

Eligibility for hospital insurance is automatic for recipients of social security and their spouses who are 65 years or older or persons who have received disability benefits for two years or more. Hospital Insurance Medicare is financed with an earmarked tax on earned income. Hospital coverage is limited to 90 hospital days per benefit period and the patient must pay part of the cost of the hospital visit.

An important element of Medicare is how hospitals are reimbursed. Hospitals are paid a fixed amount per stay based on the diagnosed illness of a patient—not on the costs incurred by the hospital. The purpose is to control hospital costs and to provide hospitals with incentives to find lower cost ways of providing care. Since hospitals are paid the same regardless of the length of stay, they have an incentive to discharge patients soon. There has also been a decline in the rate of Medicare admissions.

The government also intervenes in the healthcare industry through the income tax system. Several tax expenditure programmes are directed at increasing healthcare and insurance. The most important tax expenditure for healthcare is the exclusion from income tax of employee compensation paid in the form of medical and dental insurance as a fringe benefit. At the same time, employers deduct from their business taxable income the cost of employee's health and dental insurance. Given

this tax break, most employees prefer to have their medical insurance provided by their employers, rather than receiving wages and paying for the insurance themselves. If they received wages and paid for their own health insurance, they would have to pay taxes on their income.

5.3 Health Insurance System in Korea

With the successful achievement of three consecutive 5-Year Economic Development Plans between 1962 and 1977, the Republic of Korea did not only emerge from absolute poverty but also became one of the most economically successful countries among developing countries. The economic success had been accompanied by improvements in social welfare. In the fourth 5-Year Economic Development Plan, which began in 1977, the Korean government achieved real capacity to consider health insurance in order to relieve households of the excessive medical care expenses and to promote the health status of the Korean people.

The Korean government overhauled the Health Insurance Act in December 1976. The new health insurance system was offered on a compulsory basis. In July 1977, based on the new Health Insurance Act, all companies with more than 500 employees were required to provide health insurance. During the next several years, the compulsory coverage requirement was gradually expanded to include companies with more than 300 employees, 16 employees, and finally all companies with at least 5 employees in 1988. It was believed that big companies were more capable of absorbing the increased costs of health insurance coverage than small companies. In 1979, the insurance programme was expanded to cover government and private school employees. In addition, a pilot insurance programme was carried out from 1981 as a preparatory step to expand the health insurance to the self-employed in rural and urban areas. Based on the result of the pilot study, self-employed individuals in rural areas and in urban areas were covered by the insurance

programme in 1988 and in 1989, respectively. In summary, it took 12 years for the Republic of Korea to accomplish universal health insurance coverage for all her citizens.

The financial resources of the national health insurance system are contributions paid by the insured and their employers and government subsidies. In both employees health insurance, including the government and private school employees, contributions are based on the incomes of the insured; the scope and items of income and the contribution rates are the same.

In the event of sickness or injury, the insured persons and their dependants are entitled to healthcare services from healthcare facilities. Healthcare benefits include in-patient and outpatient care, dental services, traditional oriental medicines, prescription drugs, and essential preventive services. In order to prevent disease through early detection, the insured employee, and any dependants who are 40 years and above, are entitled to health examination every two years. The self-employed are entitled to examination every year. Benefits in cash include healthcare allowances, maternity allowances, funeral allowances, compensatory reimbursement, and allowance on caring aids and appliances.

In order to curtail the overuse of the medical care services and the concentration of services in large urban hospitals, the level of co-payment for outpatient services and in-patient services was set differently across medical care institutions. When a patient is admitted to a clinic, a hospital, or a general hospital, 20 percent of the total medical charges have to be paid by the patient. For outpatient services provided at a hospital or a general hospital, the patient pays 40 or 65 percent, respectively, of the total charges, excluding the diagnosis and consultation fee. In case of using a pharmacy, a patient must pay 30 percent of the dispensing and drug cost (a patient without a prescription slip must pay 40%).

More than 90 percent of the medical care services in Korea are provided by the private sector. All pharmacies are owned and operated by individual pharmacists. To provide medical care services for patients who are insured or are dependent on the national health insurance programme, every legal medical care institution is authorized to provide medical services for the national health insurance programme.

The payment of healthcare services is a kind of merit system, which pays for the actual services rendered on the basis of an itemized cost for each medical service. The medical fees payment system is based on fee-for-service principle. The National Health Insurance Corporation makes claims for payment of medical care. The Health Insurance Review Agency reviews and evaluates the claims submitted by the medical care institute and transfers the result to the National Health Insurance Corporation.

The health insurance programme in Korea has contributed greatly to the promotion of people's health by reducing people's burden of medical care expenses and improving access to medical care services. However, people have continued to demand for higher medical care services, especially as the economy and therefore the living standards improve.

5.4 Singapore's Innovative Approach

Singapore's health financing system combines universal medical savings accounts with supplementary programmes to protect the poor and address potential market failures in health financing. The results have been impressive with low costs, excellent health outcomes, and full consumer choice of providers and quality of care.

Singapore's health financing system includes complementary programmes designed to promote individual responsibility, protect the poor, and address potential market failures. Under the Medisave programme introduced in 1984, employees contribute 6–8 percent of their monthly salary (with the share depending on their age) to an individual

medical savings account (MSA), while employers make a matching contribution. Medisave contributions are part of a broader compulsory savings programme in which employees contribute 16 percent of salaries, and employers 20 percent, to a central provident fund to cover hospitalisation (Medisave), pensions, and mortgages (Taylor and Blair, 2003).

Medisave contributions are capped monthly and over a lifetime to prevent unnecessary use of medical services. Contributions from the payroll tax in excess of the caps are automatically transferred to an individual's ordinary account within the broader compulsory savings programme. Withdrawals above a specified level are permitted after age 55 years. Upon death, any remaining balance is paid to the nominees of the account holder, free of estate taxes.

Individuals can use their MSA to pay hospital expenses incurred by themselves or their immediate family. To encourage prudent use and discourage unnecessary hospitalisation, there are limits on how much of the MSAs can be used for daily hospital charges, physician fees, and surgical fees. The limits generally allow full coverage of the bills of most patients staying in subsidized wards in public hospitals, but co-payments are required from those opting for private hospitals or more expensive accommodation in public hospitals. MSAs can also be used for expensive outpatient treatments such as chemotherapy, HIV drugs, and kidney dialysis.

Medisave account holders face the risk that catastrophic illness could wipe out their MSAs. To address this risk—and in the absence of a traditional national health insurance programme—Singapore introduced the Medishield programme in 1990. All Medisave account holders under age 80 are eligible to buy Medishield insurance and can pay their premiums using their MSAs. Medishield covers hospital expenses (surgery, intensive care) and some high-cost outpatient treatments.

Medishield limits its use to catastrophic illness by setting deductibles for hospital expenses, requiring patient co-payments of 20 percent for amounts above the deductible levels (patients can use their Medisave accounts to pay the deductibles and co-payments), and setting limits on claims per treatment, policy year, and lifetime. In 1994, the government introduced an enhanced programme, Medishield Plus, to provide reimbursement for accommodation in private hospitals and premium wards in public hospitals. To ensure that no Singaporean is denied good basic care because of inability to pay, the government set up Medifund in 1993 to subsidize healthcare for the poor (roughly 10 percent of the population). Under Medifund rules, only interest income, not capital, may be disbursed (Taylor and Blair, 2003).

In June 2002, the government introduced a low-cost insurance programme, ElderShield, to provide financial protection for people with severe disabilities. Medisave account holders are automatically enrolled in ElderShield when they reach age 40 unless they opt out. ElderShield pays monthly cash allowance (for a maximum of 60 months) to those unable to perform three or more basic "activities of daily living." Because the insurance payout is not tied to reimbursement of institutional care, policy holders have the flexibility of being cared for at home or in a healthcare facility.

The financing system is designed to help individuals pay their share of medical costs. But to ensure that basic medical care is available for all, the government also provides direct subsidies to public hospitals, polyclinics, and nursing homes for the elderly.

Singapore's health financing system has a unique mix of features that differentiate it from traditional government-funded or national health insurance programmes. These features are:

Incentives

Unlike traditional indemnity insurance, MSAs encourage individuals to take responsibility for their own healthcare needs by providing incentives to save and to avoid unnecessary use of medical services. MSAs belong to the individual, accumulate over a lifetime, and can be used at the individual's discretion. Health insurance premiums in other countries do not belong to the individual, do not accrue over time, and are often subject to restrictions on services and providers.

Low-cost insurance

To address the risk of catastrophic illness, Singapore complements MSAs with catastrophic insurance—Medishield and ElderShield. Premiums can be kept low, since catastrophic events (and payouts) are relatively rare. People can pay their Medishield and ElderShield premiums from their MSAs. Through these two programmes, most Singaporeans have some basic insurance coverage for long-term care.

Targeted subsidies

To assist those who may have insufficient income to accrue MSAs or pay Medishield premiums—the poor, the unemployed, and the elderly—the government provides targeted subsidies through Medifund and "top-ups" to Medisave and Medishield funds. It also provides direct subsidies to public hospitals to ensure that basic services are available and affordable for all.

5.5 Healthcare System in Egypt[6]

The Health Insurance Organization (HIO) of Egypt is prominent among the many institutions involved in health financing and provision, and a key player in the country's health sector reform programme. It was

[6] Borrowed from Abd et al, 1997.

established in 1964 as the institution in Egypt responsible for social health insurance, providing compulsory health insurance to workers in the formal sector. The HIO is an autonomous government organization under the supervision of the Minister of Health and Population. It finances healthcare services through a combination of payroll and cigarette taxes, and delivers healthcare services through its own network of hospitals, clinics, and pharmacies and through contracting private sector providers. The HIO is organized into eight regional branches, which are supervised by the central headquarters in Cairo.

The HIO now manages several separate social health insurance programmes under different legislation: certain government employees under Law 32, enacted in 1975; other government employees and public and private sector employees, pensioners, and widows under Law 79, enacted in 1975; and the Student Health Insurance Programme (SHIP) for school children under Law 99, enacted in 1992.

The HIO benefit packages are broad and generous. Employees covered under Laws 32 and 79 are entitled to receive all services including transplants, plastic surgery, and treatment abroad. The benefit package has no limits on the quantity or cost of services. In addition, the HIO contracts with other facilities and with a large number of doctors to provide services to its insured population.

Utilization and productivity of HIO hospitals and physicians are relatively low. In financial year 1996, the average occupancy rate for inpatient services was 66 percent. A policy to increase bed occupancy rate through a greater number of admissions per bed rather than longer stays allowed more patients to be served and boosted hospital productivity. The average number of visits per day per general practitioner/physician was only eight under the SHIP programme, while the average annual per capita visits to a general practitioner is 1.29, with significant variation across programmes and regions. The average annual

per capita visits to a specialist across all HIO programmes and branches is 0.73.

The HIO is primarily funded through a system of premiums and co-payments for services rendered. The Social Insurance Organization collects mandated premiums from covered employees and employers while the Pensions and Insurance Organization collects premiums from pensioners. SHIP is financed by a system of individual premiums paid by enrolled students, government contributions, and a cigarette tax. In addition, the HIO has received additional transfers from the Ministry of Finance to cover operational losses.

All HIO programmes other than SHIP are either breaking even or losing money. Many factors contribute to the lack of financial viability and equity in HIO programmes, including: low contribution rates and co-payments, ability of employers to opt out of HIO coverage, beneficiaries in low-income regions bearing a larger cost burden than high-income regions, coverage that fragments households and services (e.g., coverage of employees does not include their families), and inefficient management of HIO programmes.

5.6 Healthcare System in Thailand

Health insurance schemes in Thailand can be classified into three types: welfare and fringe benefit; compulsory; and voluntary health insurance. There are four health insurance schemes in the welfare and fringe benefit category: Civil Service Medical Benefit Scheme (CSMBS); Free Medical Care for the Low Income Household Scheme (FC/L); Free Medical Care for the Elderly Scheme (FC/E); and School Health Insurance Scheme (SHI).

The CSMBS, initiated in 1980, aims to provide medical care benefits to civil servants and employees, retired pensioners, and their dependents.

Dependants include parents, spouses and up to 3 children under 20 years old. Benefits of this scheme include medical consultations, medical treatment, operations and other therapeutic care, drugs, inpatient care and obstetric delivery expenses.

The FC/L was initiated in 1975 with the twin objectives of creating more equitable access to health services and improving the health status of the poor. The target populations are single persons with a certain minimum income per month, and married couples with income less than $1,344 per year per person. The benefits are free medical services from public outlets and hospitals.

The FC/E was implemented in 1992 with the aim of increasing accessibility to health services and improving the health status of the elderly. The target population is those citizens 60 years old and above who are not covered by other schemes. The benefits include outpatient and inpatient care provided at public facilities.

Finally, medical service to schoolchildren from grade 1 to grade 9 (around 6-14 years old) is guaranteed through the School Health Insurance scheme (SHI). The benefits cover outpatient and inpatient care at public service units. In some areas, dental services are also provided.

Compulsory insurance consists of three insurance schemes: Workmen Compensation Scheme (WCS); the Social Security Scheme (SSS); and Car Accidental Insurance (CAI). The WCS was introduced in 1974 to protect workers from illness, injuries, death, and disability caused by work or work-related conditions. The target populations are employees in firms with more than 10 workers. Benefits include medical compensation for work-related illness and injuries, temporary and permanent disability benefits, survivor's pension, funeral grants and rehabilitation expenses.

The SSS was enacted in 1990 and implemented in February 1991 to protect workers from non-occupational illness and injuries, and to compensate

for maternity, disability, and death. The target populations are firms with more than 10 employees.

The CAI scheme was implemented in 1992 to guarantee medical treatment for victims of vehicular accident. In theory or by law, every vehicle owner, including motorcycle owners, must have this insurance; in practice, many are not insured.

Two health insurance schemes are voluntary: the Voluntary Health Insurance Scheme (VHIS), and the Private Health Insurance (PHI). The PHI scheme was introduced in 1978 when Thai Medical and Health Company Limited was established to improve security and provide better healthcare, by combining life insurance and medical insurance for people in the upper-middle and high-income groups who can afford the premiums.

The VHIS, commonly known as the Health Insurance Card Scheme, was first introduced as the Health Card Project in 1983. The three main objectives of this scheme are to promote community development under the primary healthcare programme, foster a rational use of health services through a referral system, and increase health resources based on a community-financing concept. The Voluntary Health Insurance Scheme has been continuously monitored and evaluated. Frequent adjustment of its strategies and objectives have included voluntary risk sharing with cost-recovery, in addition to service provision. The target populations are the near poor and middle-income class in rural areas or those that can afford a premium. A household contributes half of the price of the health insurance card and the other half is subsidized by general tax revenue through the Ministry of Public Health. The benefits include outpatient care for illness and injuries, inpatient care, and mother and child health services. There is no limit on utilization of the services. The beneficiaries, however, can only go to healthcare provider units under the Ministry of Public Health.

5.7 Lessons from Other Countries' Experiences

All countries and all healthcare systems are different. However, some general lessons emerge from experiences of the countries cited above. A few of them are discussed below:

Diversity: There is no right or wrong way to combine systems of finance and provision. Social insurance can be combined with private providers, social insurance providers or public hospitals.

Stage of economic development: Korea had 5-Year Economic Development Plans between 1962-1977 to emerge from absolute poverty and become one of the most successful countries among the developing countries. There was economic success accompanied by improvement in social welfare. Therefore, by 1977 the Korean government had a real capacity to consider universal health insurance.

Gradual implementation: Germany, Egypt and Korea had a gradual implementation of the scheme. Egypt is said to have a small but established social insurance sector. In Korea, all companies with more than five hundred employees were required to provide health insurance. After several years, compulsory coverage requirement was expanded to include companies with more than 300 employees, 16 employees, and finally all companies with at least 5 employees in 1988. The gradual implementation of the scheme took 12 years. Germany took a long time for social health insurance to evolve.

Pilot programme: In the Korean case, the government even had a pilot insurance programme in 1980. This was carried out as a preparatory step to expand the health insurance to the self-employed in rural and urban areas. It is important to note that based on the result of the pilot study, self-employed individuals in rural and urban areas in Korea were covered by the insurance programme from 1988 and 1989. This was after 10 years from the start of the programme in 1977.

Addressing moral hazard: In all the case studies, the issue of patient moral hazard through co-payments had been addressed. In the United States, hospitals are reimbursed a fixed amount per stay based on the diagnosed illness, not on the cost incurred by the hospital. This is in order to control hospital costs and the length of stay.

Benefits package: In all the cases, benefits package covers inpatient and outpatient, prescription drugs and essential preventive services.

Financing of the scheme: The funding comes from contributions by employers and employees and government subsidies. The Kenyan scheme proposes to get funds from similar sources.

6. Summary of Findings

Social insurance requires development of substantial institutions, systems and management capacity. This will take time and has substantial set up and administrative costs. For instance, the large informal and rural sector in Kenya can make collection of insurance contributions more difficult and costly and many of these groups may find it difficult to pay. To proceed with such a scheme, the government must be convinced that it will lead to better results in terms of health service performance and equity/health outcomes, and to be worth the effort and costs.

Tight management, effective contracting, and appropriate provider payment arrangements are of critical importance to successful implementation of health insurance. It is therefore important to have a thorough design and planning stage, which draws on international experience and where all stakeholders are consulted. This will help the stakeholders to own the scheme.

There is need for monitoring and enforcement mechanisms, which control against over-utilisation of medical services, unnecessary diagnostic and therapeutic procedures and interventions, irrational medication and prescriptions, under-utilisation of services or inappropriate referral practices. Modest co-payments are necessary in order to curtail overuse of medical services, as shown in the various country case studies contained in this study. In some cases, it is important to set the level of co-payment differently across medical care institutions to curb the concentration of medical services in large urban hospitals.

To maintain financial stability and appropriate standardisation of benefits, the health insurance programme should have some limiting conditions by excluding some items from coverage, such as treatment for simple fatigue, cosmetic surgery, treatment of addiction to narcotics, physical examination without any symptoms, bodily harm suffered while

committing criminal acts or from intentional accidents, among others.

There is need to ensure that adequate health infrastructure and health personnel exist to provide services to which the insured people are entitled. This will help to ensure that contributions are paid. However, development of the health infrastructure and employment of more health professionals will require resources and time to develop. There is therefore need for a gradual implementation of the scheme for it to address the issue of equity in terms of accessibility to health infrastructure and to take care of the poor first.

The idea of insuring against risk is not well understood in Kenya and this undermines the sustainability of the new scheme. Therefore, marketing and education to the informal sector is vital in order to encourage people to see the advantages of joining and for them to understand how insurance works.

For significant development of health services, the economy needs to grow in order to support such developments, as was the Korean case. For the scheme to be sustainable, it is important to work on the economy to ensure its consistent growth.

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Appendix

Table 1: NHIF contribution rates

Basic Salary	Monthly contributions (Kshs)
1,000-1,499	30
1500-1,999	40
2,000-2,999	60
3,000-3,999	80
4,000-4,999	100
5,000-5,999	120
6,000-6,999	140
7,000-7,999	160
8,000-8,999	180
9,000-9,999	200
10,000-10,999	220
11,000-11,999	240
12,000-12,999	260
13,000-13,999	280
14,000-14,999	300
15,000-and above	320
Voluntary/self employed	60

Source: NHIF brochure

Table 2: National Hospital Insurance Fund receipts and benefits, 1991/92 to 2000/01 (Kshs million)

Year	Receipts	Benefits	Net	Year	Receipts	Benefits	Net
1966/67	13.9	6.9	7.0	1984/85	107.2	119.0	-11.8
1967/68	16.0	11.6	4.4	1985/86	142.8	104.8	38.0
1968/69	16.9	11.5	5.4	1986/87	152.4	123.2	29.2
1969/70	19.3	12.5	6.8	1987/88	189.4	177.2	12.2
1970/71	19.0	13.3	5.7	1988/89	190.4	176.0	14.4
1971/72	20.5	15.6	4.9	1989/90	194.4	158.8	35.6
1972/73	23.8	17.7	6.1	1990/91	736.0	312.0	424.0
1973/74	23.3	21.5	1.8	1991/92	792.0	612.0	180.0
1974/75	28.4	26.2	2.2	1992/93	860.0	768.0	92.0
1975/76	34.8	33.0	1.8	1993/94	1,017.0	893.0	124.0
1976/77	32.6	39.7	-7.1	1994/95	1,229.0	1,050.0	179.0
1977/78	43.3	42.7	0.6	1995/96	1,438.0	342.0	1,096.0
1978/79	51.5	31.6	19.9	1996/97	1,648.0	544.0	1,104.0
1979/80	60.1	36.2	23.9	1997/98	2,004.0	444.0	1,560.0
1980/81	71.3	38.8	32.5	1998/99	2,130.0	382.0	1,748.0
1981/82	100.9	59.5	41.4	1999/00	2,116.0	408.0	1,708.0
1982/83	112.8	92.2	20.6	2000/01	2,219.0	537.0	1,682.0
1983/84	129.2	109.2	20.0				

Source: Economic Surveys, various years

Table 3: Time taken (minutes) to reach health facilities

Region	*Poor*				*Non-poor*			
	<10	10-29	30-59	60+	<10	10-29	30-59	60+
Distribution of time taken to reach the nearest qualified doctor's office								
Rural	0.2	16.8	16.1	66.8	0.7	21.2	18.3	59.7
Urban	5.7	81.1	9.8	3.5	9.0	78.5	11.4	1.1
National	1.2	29.2	14.9	54.7	2.5	33.4	16.9	47.3
Distribution of time taken to reach the nearest dispensary								
Rural	1.0	34.7	24.7	39.7	2.0	41.3	25.2	31.5
Urban	4.7	83.7	9.6	1.9	5.8	82.5	10.2	1.6
National	1.7	44.1	21.8	32.4	2.8	50.1	22.0	25.2
Distribution of time taken to reach the nearest hospital								
Rural	0.1	7.1	11.4	81.4	0.2	10.2	13.8	75.9
Urban	0.5	47.5	28.3	23.7	1.4	50.7	28.6	19.3
National	0.2	14.9	14.6	70.3	0.4	18.8	16.9	63.9

Source: Republic of Kenya (2000)

Table 4: Reasons for not having used medical care while sick

Region	*Minor illness*	*Self-treatment*	*Too expensive*	*Too far*	*Head refused*	*Religious beliefs*	*Other reasons*
			Poor				
Rural	27.9	20.2	39.5	2.9	0.7	2.1	6.7
Urban	16.9	37.0	43.8	0.0	0.0	0.2	2.1
National	26.6	22.2	40.0	2.5	0.6	1.9	6.2
			Non-poor				
Rural	44.8	21.8	19.5	5.5	0.0	1.2	7.3
Urban	78.6	18.1	1.8	0.0	0.0	0.0	1.6
National	50.7	21.1	16.4	4.5	0.0	1.0	6.3

Source: Republic of Kenya (2000)

Table 5: Health facilities by province

	1998	1999	GoK	NGO	%
Nairobi	390	402	150	208	8.3
Coast	453	462	262	205	10.9
Eastern	793	804	392	450	19.6
N/Eastern	68	71	50	22	1.7
Central	470	481	298	172	10.9
R/Valley	1195	1207	684	567	29.1
Nyanza	484	498	279	272	12.8
Western	292	310	137	146	6.6
Total	4145	4235	2252	2042	100.0

Source: Republic of Kenya (2001)

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