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What is the impact of social health protection on access to health care, health expenditure and impoverishment?

A comparative analysis of three African countries

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1. Introduction

Despite some progress, the achievement of the Millennium Development Goals (MDGs) will not be easy and remains an important challenge. A better protection of the poor against health risks is crucial in this endeavour. Obviously, poor health drastically impedes the social and economic development of a country: beyond directly affecting people's well being (reduced life expectancy, high infant mortality, spread of infectious diseases, etc.) poor health also lowers the productivity of labour and menaces the entire economy.

Access to health services typically requires out-of-pocket payments. According to WHO (2003) data, out-of-pocket payments (OOP) account for 1/3 of total health care spending in 2/3 of all low-income countries. In most African countries the amount of OOP is well above this average (Drechsler and Jütting 2005). Such payments can well lead individuals or households to reduce their expenditures for basic needs such as for food, housing and clothing, to borrow money, and to sell household assets. Some households as a result inevitably slide into poverty. Furthermore, out-of-pocket payments may lead to denied access to needed services or prevention from receiving a full course of needed treatment. The consequence is all too often a vicious cycle of poverty from which it is difficult to escape in an already impoverished environment. Providing access to affordable health services can alleviate the financial burden of households and improve their ability to generate income.

Recently, there has been an increasing focus on social health protection through health insurance as a potentially promising way to better deal with health risks in developing countries. However, the empirical basis for a profound analysis of the effects of health insurance is still very weak. Against this background the ILO, WHO, and the OECD Development Centre sponsored by GTZ have undertaken a collaborative research project in this field. This paper summarizes the results of three individual research projects (Asfaw, 2005; Lamiraud et al., 2005; Xu et al., 2005) measuring the impact of membership in a health insurance scheme in three African countries, namely Kenya, Senegal and South Africa.

The paper is structured as follows. The first section briefly outlines the health care systems in Kenya, Senegal and South Africa, followed by a short description of the methodology and data used in the research. The later sections focus on empirical results and policy implications.

2. Brief overview of organization and financing of the health systems in Kenya, Senegal and South Africa

The three countries selected; Kenya, Senegal, and South Africa vary substantially in economic development and health conditions (Table 1). South Africa is the richest country in sub-Saharan Africa; in 2001 its gross domestic product (GDP) stood at 7538 international dollars. In Kenya it amounted to 1452 and in Senegal 1323. Between 1990 and 2002, the percentage of the population living below one dollar per day ranged between a high point of 26.3 in Senegal and 7.1 at its lowest in South Africa. Kenya lies close to Senegal at 23 per cent.

Table 1. Basic data: Kenya, Senegal and South Africa

| | GDP (\$) | Population living below 1\$/day 1990–2002 (per cent) ⁽¹⁾ | Life expectancy | Child mortality under 5 years (Boys/Girls) | HIV/AIDS Prevalence ⁽²⁾ |
|--------------|-------------|---|--------------------|--|---------------------------------------|
| Kenya | 1452 | 23 | 50.9 | 119/113 | 6.7 |
| Senegal | 1323 | 26.3 | 55.8 | 139/129 | 1 |
| South Africa | 7538 | 7.1 | 50.7 | 86/81 | 15.2 |

(1) Human Development Report 2003 and 2004, www.undp.org
(2) Adult population; HIV/AIDS and work, global estimates, impacts and responses; ILO, 2004.
Other data from WHO website, www.who.int

For life expectancy Senegal, at 55.8 years, scores the highest among the three countries. It is followed by Kenya (50.9 years) and South Africa (50.7 years). Child mortality under 5 is much lower in South Africa (86 per thousand for boys and 81 for girls) than in Kenya (119 for boys and 113 for girls) and Senegal (139 for boys and 129 for girls).

Many African countries face the challenge of improving access to health care whilst at the same time struggling with the burdens of the recent HIV/AIDS pandemic, other persistent infectious diseases as well as severe overall economic constraints on the financing of health services. Amongst the three countries, HIV/AIDS prevalence is at its highest in South Africa with 15.2 per cent of the adult population affected, followed by Kenya with 6.7 per cent and Senegal with just 1 per cent.

The organizational and financial arrangements of health systems play a critical role in improving access to health service and in protecting households from severe financial loss. All three countries have an important tax-based component in their health financing system. However, various forms of compulsory and voluntary insurance schemes have been introduced as a supplementary form of financing.

Thus, in Kenya, we find a compulsory hospital insurance (organized by the National Hospital Insurance Fund - NHIF) that covers government and formal sector employees and their family members; NHIF however covers only 7 per cent of the population. Other social health protection mechanisms include health maintenance organizations (HMO), private health insurance, community-based health insurance and various mutual help groups (Harambee). Children under 5 years of age are entitled to free primary health services from public facilities. The poor are also in principle entitled to free health care from public facilities, but there is no uniform standard on who, how much and for which services they may be eligible or exempted. In December 2004, Kenya passed a new law on National Social Health Insurance, an extension of the current NHIS, which attempts to cover the whole population.

In Senegal, a statutory social health protection scheme is provided by company and inter-company health insurance institutions (IPM, or 'Institutions de prévoyance maladie'); consequently, formal sector workers and their families are covered. Besides this statutory scheme, community-based health insurance schemes have emerged, particularly mutual health organizations (MHOs). In 2001, the number of persons thus covered amounted to

some 700,000 persons by IPMs and around 422,000 persons covered by MHOs - in a total population of 9.8 million¹.

Social health protection in South Africa is split into a public and private sector. The large public sector scheme covering 83.7 per cent of the population offers basic care depending on income testing. Financed by the State, the service is provided through public facilities; it is available to the whole population with varying user fees for different services and different administrative regions.

The private sector consists of medical schemes, often operating on a community-rating environment based on risk profiles. Although social health insurance has been under serious discussion in recent years, employment-based private insurance is still the main type of scheme in the country.

Total health spending in all three countries includes prepayment through general tax, social health insurance and private health insurance, and out-of-pocket payment. External resources are also an important component for Senegal (16.9 per cent of total health expenditure) and Kenya (16.4 per cent of total health expenditure).

Although both prepayment and out-of-pocket payment are expenditures made in effect by households, they are fundamentally different in the way each finances health care. Prepayment mechanisms improve equal access to services and protect households from financial loss while out-of-pocket payments can be a barrier for accessing health services and are a heavy financial burden to a household in times of ill health.

In South Africa, total health expenditure was 8.7 per cent of GDP in 2002, of which 40.6 per cent was from governments, 47 per cent from private prepayment schemes and 12.4 per cent from out-of-pocket payments (Table 2)². Out-of-pocket payments as a share of total health expenditure are low by both African and worldwide standards. However, the population covered by any health insurance at all is less than 20 per cent³.

The relative spending on health in Kenya stands at 4.9 per cent of GDP, with Government spending on health accounting for 44 per cent of total health expenditure. Private prepayment schemes and NGO contributions amount to 11.2 per cent, whilst out-of-pocket payments stand at 44.8 per cent, the highest of the three countries.

Total health expenditure as a percentage of GDP in Senegal is similar to Kenya at 5.1 per cent. Government spending on health is about 45.2 per cent of total health expenditure. Out of pocket payments amount to about 43.6 per cent. The NGOs and private prepayment schemes contribute 11.2 per cent of total health expenditure although the community-based health insurance is increasing. Governments and a few formal private sector entities provide health care benefits covering limited services for their employees. One of the important goals in the ten-year National Health Development Plan (PNDS) 1997-2007 is to improve the access of vulnerable groups to high quality health services⁴.

¹ County Fall, 2002: Extending health insurance in Senegal: Options for statutory schemes and mutual organisations, ESS-Paper No 9, ILO, Geneva.

² See World Health Report, 2005.

³ See Xu, Evans, Kawabata, et al., 2003.

⁴ See: Government of Senegal.

Table 2. Organization and financing of health care systems in Kenya, Senegal and South Africa: Basic data

| | Total expenditure as % of GDP | Government spending as % of total expenditure | Out-of-pocket payments as % of total expenditure | Private prepayments as % of total expenditure | Population coverage (%) |
|--------------|-------------------------------|---|--|---|----------------------------|
| Kenya | 4.9 | 44 | 44.8 | 11.2 | 7 (NHIF) |
| Senegal | 5.1 | 45.2 | 43.6 | 11.2 | 11.4 (IMPs and MOHs) |
| South Africa | 8.7 | 40.6 | 12.4 | 47 | 17 (all health care plans) |

3. Data and Methodology

3.1. Framework of the analysis

The definition of social health protection in this study is viewed quite broadly. It includes all kinds of health financing protection mechanisms, from tax-based financing, statutory social health insurance to private health insurance, community-based health insurance, and various fee exemptions for health services.

In this particular study, however, we focus on the net impact of insurance mechanisms, including statutory schemes, various types of private non-profit and for-profit health insurance, mutual benefit organizations and micro-insurance. This is not to say, however, that all schemes can ‘stand alone’ and are able to protect against ‘all’ health care costs. In fact, in quite a number of cases members do receive indirect protection from government that may be financing the health infrastructure, paying staff salaries, drug kits, etc. In other words, in such cases the financial protection provided to a patient is ensured through a combination of government funding and insurance revenues.

The analysis aims at highlighting the poverty implications related to ill health on all segments of the population, including the poor and their households, by evaluating the quantitative impact of health care costs on households covered by health insurance schemes as compared to those without any health insurance coverage. As tax-based funding normally benefits the entire population, it has not been specified as one of the social health protection schemes in this study.

Out-of-pocket payments are considered to be part of a household's total health care payments, which may also include health insurance contributions/premiums and even the imputed taxes allocated to health through the government budget. However, in this study we concentrate on out-of-pocket payments, for it has been consistently indicated in previous studies that it is they that trigger a household's financial catastrophe.

The analysis focuses on linkages between the use of health services and households' financial risk on the one hand, and income and health insurance status on the other. The key indicators in this study include: the extent of coverage of social health protection, health service utilization, catastrophic health expenditure, financial sources for paying for health services and poverty impact.

These key indicators are estimated from cross-section household surveys. The comparison focuses on the distribution across different socio-economic groups rather than the average level of each indicator. The impact of social protection schemes on the use of services and financial risk protection is identified after controlling other socio-economic indicators using appropriate econometric methods. It also highlights the characteristics of the vulnerable groups, which need greater protection.

3.2. Variables defined

Coverage of social health protection

Coverage refers to the percentage of the population covered by any health insurance scheme, including statutory schemes, various types of private health insurance, mutual benefit organizations and micro-insurances.

Health service utilization

Health service utilization is measured by a ratio of the individuals using services to those who reported illness (or need) in a certain period of time. The time frame for utilization varies from country to country depending on different survey instruments.

Catastrophic health expenditure

Catastrophic expenditure is defined as out-of-pocket payments for one or more household members equal to or above 40 per cent of a household's capacity to pay.

The capacity to pay relates to the constraint of reducing expenditure on other necessities for a period of time. It is measured, as a household's total expenditure minus its subsistence needs. The subsistence need is estimated using the food expenditure of the household with the median food share in total household expenditure, which is then adjusted for household size. This subsistence need is used as the poverty line in the poverty impact analysis.

Out-of-pocket health payment refers to payments made by households at the time of receiving health services. Out-of-pocket payments typically include doctors' consultation fees, purchases of medication and hospital bills. Although spending on alternative and/or traditional medicine is included in out-of-pocket payments, expenditure on health-related transportation and special nutrition are excluded. It is also important to note that out-of-pocket payments are net of any insurance reimbursement.

Financial sources for health services payments

Financial sources used to pay for health services reflect the burden of ill health on a household. In addition to a reduction of funds available for other basic expenditure categories, the borrowing of money and selling of assets have been reported in all three countries.

Poverty impact

Poverty impact includes the incidence and intensity of poverty due to out-of-pocket health payments. The incidence of poverty is measured by the percentage of households who were not poor before but become poor after paying for health services. This is also referred to as impoverishment.

The impact and intensity of poverty is measured by the difference in the normalized poverty gap before and after health payments. The poverty gap indicates the average amount per household that would be needed to bring all the poor above the poverty line. As the currencies used by each country are different, the normalized poverty gap (the poverty gap divided by the poverty line) allows across-country comparison.

3.3. Economic models

A multiple logistic regression is used in exploring the socio-economic characteristics associated with the coverage of social protection. The same regression model is also applied to testing the impact of social protection on health service utilization, catastrophic expenditures, financial burden and poverty impact by controlling all the other social economic indicators, such as income, age, sex, education and so on.

Being aware that there could be unobservable characteristics which influence health insurance coverage, as well as health service utilization and out-of-pocket payments, an endogeneity test is performed (using the Hausman test or the bivariate probit model) when the impact of health insurance membership was found to be statistically significant in the equations for health service utilization and out-of-pocket expenditure. In the three case studies, however, the hypothesis of endogeneity could be rejected.

3.4 Data

Data used in the research project are from 2003 household surveys. All the three surveys are national representative:

- Data for both South Africa and Senegal are from the World Health Surveys (WHS) using the same survey instrument.
- Data for Kenya are from the Household Expenditure and Utilization Survey (HEU). The instrument used in this survey is different from the WHS.

All the surveys include information on the coverage of social health protection, health service utilization, household consumption expenditures, out-of-pocket health payments, and general socio-economic indicators.

It should be noted that household consumption expenditures were collected differently in the two types of surveys. In the HEU, household expenditures were recorded for 38 items (excluding health expenditures) for one month on frequent spending and one year on less frequent spending, such as the purchasing of durable goods. Health spending in HEU came from the health section. In the WHS, household expenditures were recorded for 5 items excluding health expenditure and all for one month. Health spending in the WHS is collected in the expenditure section for 8 items for a one-month period.

Experience shows that in a household survey the more detailed the items of expenditures the higher the number obtained. The different instruments used in these two types of survey will compromise the comparability of the average level of catastrophic expenditure across countries. However, the distribution across socio-economic groups among the three countries is still comparable. The fact is, therefore, that the comparison is more focused on the distribution than the level.

Furthermore, questions on health service needs were framed differently in the two types of surveys. In the WHS, the question asks when was the last time the respondent needed health service, with multiple choices on the duration of time, from the last 30 days, to 1, 2, 3, 4, or 5 years ago. Obviously people are more likely to remember the occasions when

they actually went to see a doctor. In HEU, the question begins with whether the person was ill or not in the last four weeks, which is a common approach to this question in many surveys. This difference will make the utilization rate less comparable across countries.

4. The impact of social health protection coverage: comparative empirical analysis

4.1. Coverage of social health protection

First, we wish to reiterate that the 'social health protection' referred to should be understood as that offered by various health insurance schemes that are organized in such a way that is supplementary to the protection that is offered via tax-based funding. Results from the surveys reflect the fact that social health protection is rather limited in South Africa, the richest country in the region, where the percentage of population covered by any form of health insurance is only 12.3 per cent. In Kenya, coverage is 9.1 per cent and in Senegal, 4.2 per cent. According to the surveys, the percentage of insured persons in South Africa and Senegal would seem to be slightly smaller than indicated in the information provided in section 2.

Although the level of coverage varies substantially in all three countries, the distribution across income groups is fairly similar. The lower income groups have fewer people covered by social health protection schemes compared to the higher income groups (figure1). For example, in Kenya, 2.3 per cent of the poorest quintile is covered while the richest quintile has coverage of 24.7 per cent. Results also show that a higher population coverage at the national level does not necessarily reduce the difference in coverage among income groups.

Figure 1. Percentage of population with social health protection

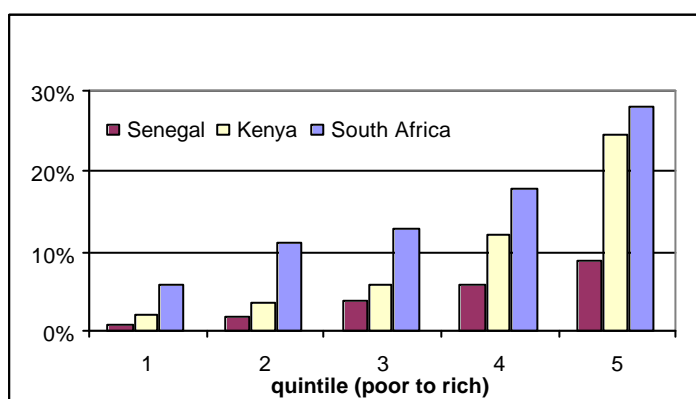


Table 3 lists results from the multiple logistic regression. A positive sign indicates that the individual with that characteristic is more likely to be covered by a social protection scheme than those without this characteristic given that all other conditions are the same. A negative sign indicates the opposite direction.

The results suggest some common socio-economic characteristics associated with the coverage of social protection in all three countries:

- *Income* is the factor that has a positive relationship with social health protection coverage. The higher the income the greater the likelihood of being covered by a scheme. This also confirms the descriptive results, and the result holds in all three countries.

- *Education* is another variable that shows the positive link to social health protection coverage across all three countries.
- There is no significant difference in coverage between *male and female*, or by different health conditions in all three countries. The implication here is that females and people with poor health who need more health care services are not given special attention in the current schemes.
- Being employed is associated with social health protection in South Africa and Kenya as for both countries the main health insurances are employment-based. There is no significant difference regarding *employment status* and social health protection in Senegal reflecting here that employment-related health protection schemes do not cover significantly more or less persons than other schemes.
- People living in *urban areas* are more likely to be covered by a social health protection scheme in Kenya and Senegal; the difference is not statistically significant in South Africa.
- *Ethnic groups*, specifically the high-income English speaking population in South Africa, are more likely to be protected than other groups.
- *Seniors* in South Africa are more likely to be covered by social health protection schemes, but not in Senegal and Kenya. In Kenya, this is due to the exclusion of people over 65 years, who are not even eligible for membership in the National Hospital Insurance Fund, the biggest health insurance scheme in Kenya.

Table 3. Effects of indicators on social health protection coverage

| Indicators | South Africa | Kenya | Senegal |
|------------------|--------------|-------|---------|
| Income | + | + | + |
| Education | + | + | + |
| Sex | ns | ns | ns |
| Health condition | ns | ns | ns |
| Employment | + | + | ns |
| Urban | ns | + | + |
| Ethnic group | + | ns | n.a. |
| Senior person | + | ns | ns |

Note: Significance level is set at 5 per cent level.

ns: not significant; n.a.: the variable is not available; +: positive effect; -: negative effect.

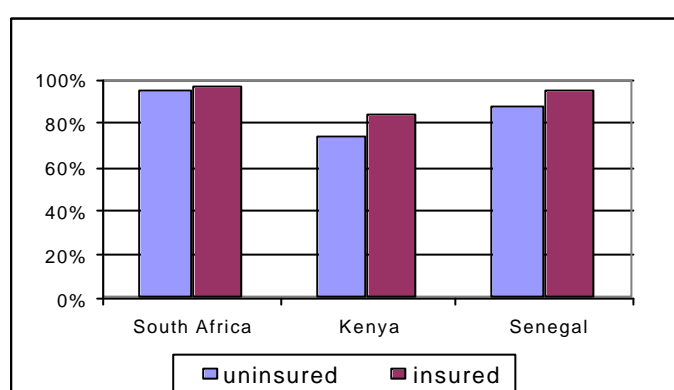
Given the characteristics of the insured population outlined above, it can be concluded that in all three countries the current social health protection schemes are lacking in their coverage of specific groups of the population, groups which are likely the most vulnerable. The social protection deficit concerns particularly households with low or no income, persons without formal employment, women, and rural households. In Kenya and Senegal, the elderly are particularly neglected. These excluded groups should be given more attention when implementing and reforming social health protection schemes.

4.2. Impact of social health protection on utilization

Social health protection aims at ensuring access to services without causing financial catastrophe for the individual or the household concerned, e.g. those who could otherwise not afford the needed services. In general, therefore, a desired result of social health protection is that the insured are more likely to use health services than the uninsured whose access is only supported via the tax-based funding. Utilization of health care services will probably increase after implementation of social protection schemes if one considers currently prevailing under-utilization in developing countries⁵. At the same time the insured might use more services than necessary (moral hazard). The surveys used in this study do not provide sufficient information to separate the moral hazard effect.

Results from all three countries in the univariate analysis show that the insured use more outpatient services than the non-insured with perceived illness (Figure 2).

Figure 2. Utilization of outpatient services



Concerning the reasons for not seeking care in Senegal, 85 per cent of respondents in the poorest income quintile cited "could not afford" as the principal reason, whereas availability of services ("could not get health care") seemed to be a secondary problem. Similar results were observed with respect to the affordability of medicines prescribed (Figure 3).

What is the impact of health insurance on seeking care if needed? In Senegal, among the group of non-insured, the affordability of health services is a major barrier for two thirds of the group, compared to one-third of the insured. With respect to the affordability of medicines prescribed, more than 63 per cent of the non-insured pointed to affordability as an issue, whereas no insured person raised this (Figure 4).

⁵ See Dor and van der Gaag, 1993; Müller et al., 1996.

Figure 3. Health care utilization indicators in Senegal

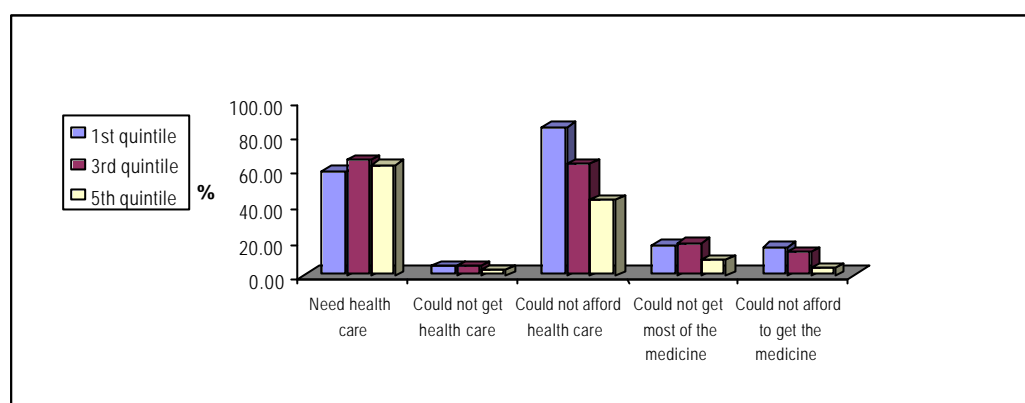
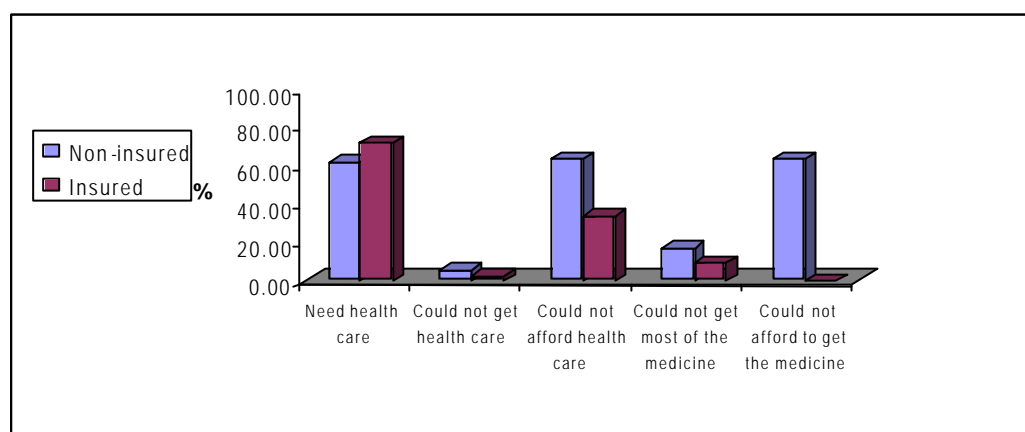


Figure 4. Health care utilization by insurance status in Senegal



Consequently, financial barriers to access to health services are conceived to be more relevant than for example geographical barriers. The results of univariate analysis reveal further, that the insured are more likely to get health care in cases of need than the non-insured, and less likely to forego seeking care due to questions of affordability.

The impact of social health protection on the use of health services is further examined using a multiple logistic regression model. The regression is applied to the sample that reported illness in a month previous to the interview. Results suggest that controlling the income, education, age, sex, employment status, urban/rural location, health condition and ethnic groups, the insured in South Africa and Senegal use more health services than the uninsured.

In Kenya, the impact of social protection on outpatient services is not statistically significant, as the main insurance - the NHIF - does not cover outpatient services. For inpatient services, the NHIF coverage has a positive effect at a statistically significant level of 20 per cent (Table 4).

Other socio-economic indicators also influence the use of health services. Income and education are found to have a positive effect on utilization in both Kenya and Senegal but not in South Africa. When controlling all other variables, urban location does not have a significant impact on utilization. Sex makes no difference on service utilization in South Africa and Kenya but, controlling all other indicators, females in Senegal are more likely to use services. Use of health services by older persons varies among these three countries.

When all other indicators are the same, the senior population in South Africa is more likely to use health services than other age groups. The opposite situation is found in Kenya, while in Senegal there is no significant difference in the use of health services either by the senior or non-senior population.

Table 4. Effects of indicators on health service utilization

| Indicators | South Africa | Kenya | Senegal |
|------------------|--------------|-----------------------|---------|
| Insurance | + | ns (+, for inpatient) | + |
| Income | ns | + | + |
| Education | ns | + | + |
| Male | ns | ns | - |
| Health condition | ns | - | n.a. |
| Employment | ns | ns | n.a. |
| Urban | ns | ns | ns |
| Ethnic group | ns | ns | n.a. |
| Senior person | + | - | ns |

Note: Significance level is set at 10 per cent level except * which indicates 20 per cent level.

ns: not significant; n.a.: the variable is not available; +: positive; -: negative.

4.3. Impact of social health protection on poverty

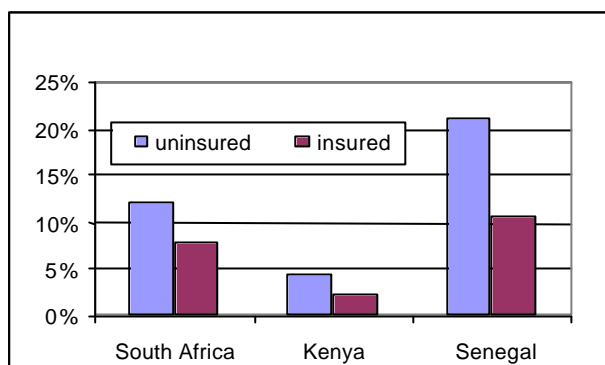
Health services are essential in order to improve people's health, and health is a necessary prerequisite to generating income. The payments required in order to access health services, and an illness-related inability to carry out paid work, both greatly affect the financial situation of a household. In order to cope with financial loss, some households reduce their basic needs' spending, such as expenditure on food, housing and clothing; others sell their assets, fall into poverty, or their present state of poverty deteriorates.

In the following paragraphs, we analyse the impact of social health protection on catastrophic expenditure, income generation, households' strategies to finance health care costs and poverty alleviation.

4.3.1. Social health protection and catastrophic expenditure

Catastrophic expenditure is when the necessary payments for a specific service are equal to or exceed 40 per cent of a household's non-subsistence spending. Results show that being covered by a social protection programme reduces a household's financial loss to some extent, but it does not fully ensure that the household is protected from facing catastrophic health expenditure. A simple tabulation result shows that the percentage of households with catastrophic expenditure is lower among the insured than the uninsured in all three countries, while the magnitude of the difference varies across countries (Figure 5).

Figure 5. Percentage of households facing catastrophic expenditure



The multiple logic regression results confirm that the insured households are less likely to face catastrophic expenditure than the uninsured in Senegal (Table 5). However, in South Africa it only works for the richest quintile and in Kenya no significant impact emerges. This result may not be surprising given the fact that, in South Africa, the rich enjoy a better benefit package through different insurance schemes than the poor who are only entitled to very limited benefit from the public programme or from low-cost insurance schemes. In Kenya the insurance coverage is mostly based on employment status and the main insurance programme - NHIF - only covers inpatient services with a high cost-sharing rate for patients. Two important results emerge from the analysis. First, social health protection can help to better shield households against financial shocks. Secondly, however, the current forms of health insurance are far from being complete or perfect.

Other socio-economic indicators, such as rural locations are associated with a higher probability of facing catastrophic expenditure in all three countries. Further, households with members under five years of age are more likely to face catastrophic expenditure in Senegal while the opposite result is obtained in Kenya. It is likely that the policy of free services to children under five years old in Kenya could contribute to this result.

Having senior members in a household who may be more in need of health services often is a risk factor when facing catastrophic expenditure. However, the empirical results do not show a positive correlation between senior members in a household and the incidence of catastrophic expenditures in any of the three countries. Several reasons could contribute to this result: the population over 60 years of age is relatively small in Kenya (4.9 per cent) and in Senegal (4.2 per cent); and the senior person may use less service when needed due to both financial and geographical restrictions.

Table 5. Socio-economic characteristics associated with catastrophic health expenditures

| Indicators | South Africa | Kenya | Senegal |
|--|--|-------|---------|
| Insurance | ns (first 3 quintiles) + (4 th quintile) - (5 th quintile) | ns | - |
| Income (1 st quintile as control group) | | | |
| - 2 nd quintile | ns | - | ns |
| - 3 rd quintile | ns | - | ns |
| - 4 th quintile | + | - | - |
| - 5 th quintile | - | - | - |
| Education | n.a. | - | - |
| Urban | n.a. | - | - |
| Child under 5yrs | n.a. | - | + |
| Senior person | n.a. | ns | ns |

Note: Significance level is set at 10 per cent level.
ns: not significant, n.a.: the variable is not available; +: positive, -: negative.

4.3.2. Social health protection and households' strategies for financing health care

In order to cope with the financial burden of ill health, households resort to various strategies to draw on all kinds of financial sources, such as using up savings, reducing other expenses including basic needs, borrowing money from relatives, friends or financial institutions and selling assets such as livestock and land if cash savings are not sufficient.

All strategies have an impact on the current and future welfare of households. Borrowing money and the sale of assets in particular will have a long-term impact on a households' financial situation and income generation capacity. Neither strategy is rare in any of these three countries.

Health insurance coverage seems to reduce the need to sell assets in case of financial difficulty in both Kenya and Senegal, but not in South Africa. In Senegal, 15.4 per cent of non-insured households sold assets in order to finance health care services compared to 4.4 per cent of insured households (Table 6). In addition, health insurance coverage reduces the probability of borrowing, except in Kenya.

Table 6. Household financial mechanisms to cope with health care expenses (per cent)

| | South Africa | | Kenya | | Senegal | |
|----------------------------------|--------------|---------|-----------|---------|-----------|---------|
| | Uninsured | Insured | Uninsured | Insured | Uninsured | Insured |
| Sales of assets | 5.9% | 10.6% | 1.0% | 0.2% | 15.4% | 4.4% |
| Borrowing from family or friends | 10.5% | 7.0% | 4.1% | 4.3% | 27.9% | 12.3% |
| Borrowing from outside | 11.5% | 3.0% | | | 13.2% | 6.1% |

4.3.3. Social health protection and depth of poverty

Poor health triggers poverty. Households just above the poverty line may all too easily slide into poverty triggered by just the smallest expense on health services. Further, within poor households poverty might be aggravated by health expenditure. These facts have been confirmed in numerous research findings and conclusions, and have led to the particular attention of the international community, notably in establishing health-related MDGs, the WHO Commission on Macroeconomics and Health, and ILO resolutions and conclusions on a new consensus in social security.

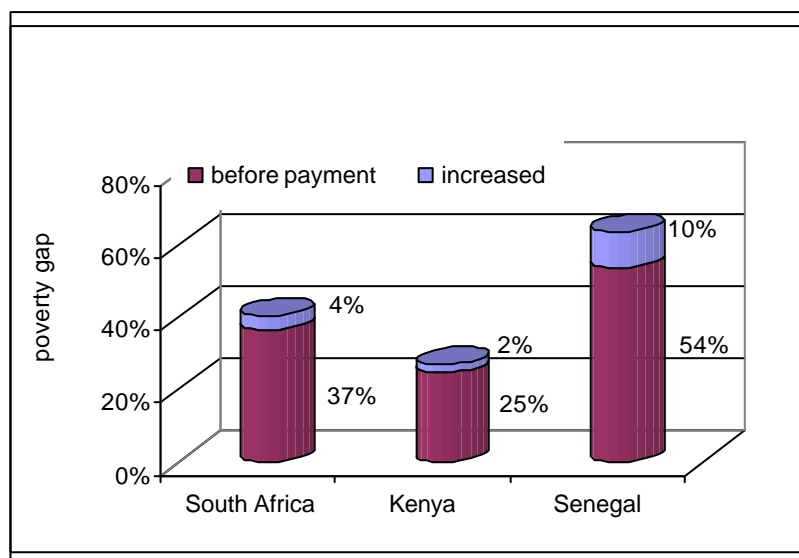
Impoverishment as a result of health payments rates at between 1.5 per cent and 5.4 per cent of households across the three countries. This translates into over 100,000 households in Kenya and Senegal and about 290,000 households in South Africa dropping under the poverty line as a direct result of paying for health services. Furthermore, in each of the three countries studied, out-of-pocket health payments deepened the level of poverty of the already poor. Prior to health payments, the poverty gap was (Figure 6)

- 37 per cent in South Africa;
- 25 per cent in Kenya; and
- 54 per cent in Senegal.

After health payments, the poverty gap increased to:

- 41 per cent in South Africa;
- 27 per cent in Kenya; and
- 64 per cent in Senegal.

Figure 6. Impact of health payments on poverty gap



It can be concluded that not only does health expenditure precipitate the impoverishment of previously non-poor households, it also increases the poverty gap among the poor themselves. The results also reveal that social health protection can help to reduce impoverishment. Under the current health financing system in each of the three countries, however, the poor have very limited social protection coverage; the impact of coverage on the intensity of poverty is not, therefore, expected at an observable level from the cross-section of sampled surveys.

5. Summary of findings and policy implications

In Kenya, Senegal and South Africa, the level of coverage of any form of health insurance is quite low, ranging from 7 to 17 per cent. At the same time, out-of-pocket payments are very high in Senegal and Kenya, and account for about 45 per cent of total health expenditure in both countries.

This implies that the majority of the population working in either the formal or informal economy is not benefiting from social health protection programmes. It could furthermore be shown that the social health protection deficit concerns particularly vulnerable groups in the three countries, such as people living close to or in poverty, persons living in rural regions, women and the elderly.

An analysis of the financial impact (or lack of) of social health protection or access to health services, expenditure and poverty revealed that health care costs constitute a very high barrier of access to health services for households in real need.

In the situation of insufficient tax-based funding, social health protection schemes can reduce this barrier, with the results of the study showing that the insured are more likely to get health care if and when needed. Furthermore, social health protection has the potential to reduce the shortfall in income generation as a result of sickness, and to protect households from hazardous, wealth-threatening health financing strategies such as borrowing money or selling assets to cover health care cost. Against this background, social health protection can play an important role in reducing impoverishment.

These results confirm the importance of political strategies in setting priorities in extending coverage of social protection schemes to the poor and investing in the development of social health protection. The following policy recommendations are put forward to

improve access to social health protection, and reduce the financial burden and risk of impoverishment due to health expenditure:

- Extending coverage to the poor and vulnerable
- Providing benefit packages and adjusting cost sharing
- Policy considerations beyond the health sector

5.1. Extending social health insurance coverage to the poor and vulnerable

In all three countries studied, the current rather limited social health protection coverage principally benefits persons in the formal economy. The poor who already have low capacity to pay and the vulnerable who are more in need of services are not accorded the same attention as the rest of the population. Specific programmes, targeting for example children under 5 years of age and the poor, fall short of expectations. This situation is also not uncommon in other developing countries. Extending social health protection to the poor, therefore, should be a priority.

While social health protection schemes generally have the potential to mitigate the worst financial effects of ill health on poor households, it is not possible to develop a single right model for all countries or even for all types of vulnerability and poverty within one country.

There are different strategies to enhance effectiveness of social health protection in changing social and economic environments. Whereas improving performance and coverage of statutory social health protection schemes seems to be straightforward for formal sector workers – as long as principles of good governance, solid financing and administration are applied, it is much more complex to reach the often vulnerable and poor people living and working in the informal sector.

In order to reach this group, social protection strategies need to take into account specific approaches with respect to the identification of persons, accommodating their reduced capacities to pay contributions, arranging for specific needs and health risks. Even such modifications to a protection scheme will not ensure that regulations can be enforced.

To reach the majority of the population working in the informal sector in African countries will require - besides the improvement of publicly provided health - a better integration of schemes that are based on collective risk-sharing at the community level. The emerging movement of mutual health organizations and micro-insurance schemes in African countries is very interesting in this respect, and programmes have been initiated by health care providers (e.g. hospitals), non-governmental-organizations, and local associations. However, such schemes are generally limited to a specific region or community and thus only reach a small number of people.

Moreover, health insurance packages are not comprehensive, but only offer supplementary coverage for certain medical treatments. Despite these limitations, Mutual Health Insurance (MHI) is a promising approach to extending health care coverage to otherwise excluded individuals. Specifically, MHI has the potential to integrate a large part of the rural population in Africa which would otherwise be left with none - or very little - health care coverage. Although the scope of each individual scheme is very restricted, there are different ways to scale up coverage. This could include building federations between schemes and using community institutions, such as cooperatives, to disseminate the insurance product and link community efforts with public efforts, e.g. through subsidies. This requires creating "attractive" schemes with low transaction costs.

The challenge ahead for policymakers lies in the need to encourage the scaling-up of these schemes and linking them to public policies. This requires a careful balance of regulation in order to leave enough space for the schemes to develop.

5.2. Providing adequate benefit packages and adjusting cost sharing

Health services covered by social protection programmes are essential for protecting people from severe financial loss. Households may still experience devastating financial consequences even when covered by insurance if the benefit package is not comprehensive⁶.

There is no gold standard on the benefit package, but its overall objective should be to protect the poor and vulnerable against catastrophic health costs. There is experience in practice suggesting that a restricted benefit package would be less successful in protecting against catastrophic expenditure. In Kenya, where the NHIF covers only inpatient services (specifically the hospital bed expense) there is evidence that catastrophic expenditure due to outpatient services is not rare.

It is not a question, however, of the larger the benefit package the better. The size of the benefit package involves a balance between cost and risk protection. Given scarce resources, it is necessary to set priorities in benefit packages and other components of the scheme design in order to cover the needs of the poor. Priority setting should be based on medical guidelines, evidence-based medicine and all kinds of certification/quality assurance.

5.3. Policy considerations and research needs beyond the health sector

South Africa, Kenya and Senegal are facing great challenges on their road to universal health coverage. People impoverished by health payments or unable to access services due to financial barriers are numerous in all three countries. Meanwhile great efforts are being made in these countries to expand social protection programmes in order to allow widespread access to needed services, minimize households' severe financial loss and break the cycle of illness and poverty. It is obvious from the above discussion that there is no one-fits-all solution.

Policy interventions in the area of social protection have concentrated in the past largely on the supply side, i.e. via subsidizing public health care facilities, providers and MOH. Recently, a change can be observed and the demand side of the health care system has come increasingly into the focus of policy makers. Patients are increasingly being considered as economic agents instead of purely as beneficiaries or target groups, and are seen as actors who interplay with other stakeholders such as providers, government authorities, etc. This is an important step forward, though not sufficient. As households face several risks at the same time – beside health risks, production risks, etc. – only a holistic strategy to deal with risk and vulnerability will have a long-lasting impact.

The topic of risk and vulnerability is gaining more and more attention in the international arenas. In their current work on pro-poor growth the donor community (DAC member countries) has set up a specific task force analyzing the relationship between risk and vulnerability on the one hand and poverty, inequality and growth on the other. One major conclusion of this work is that while in the last few years important knowledge has been

⁶ See Himmelstein, Warren, Thorne & Woolhandler, 2005.

accumulated in estimating the costs of being unprotected against shocks, far less progress has been made in discussing what kind of policies and instruments are appropriate in a given context to improve existing risk sharing arrangements. Much more work is needed in this area. An important step forward would be to systematically include risk analysis in the PRSP process as well as to conduct further research into identifying policies and instruments that would help people to deal with risks more effectively. Progress in health protection would be particularly welcome as labour is often the only asset of the poor. Increasing labour productivity is a cornerstone of any and all pro-poor growth strategies that aim to achieve the MDGs.

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