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THE POTENTIALITY OF PRIVATE HEALTH INSURANCE IN SUDAN: THE SHIEKAN INSURANCE COMPANY(LTD.) EXPERIENCE

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Abstract: *Purpose*: The purpose of this paper is to analyse the potentiality of private health insurance in Sudan,using the Shiekan Insurance Company (Ltd.) experience. The present research also explores the possibility of private health insurance (PHI) as a system of financing health services in Sudan.
Design/methodology/approach: The study adopted descriptive and analytical approaches using both quantitative and qualitative data. In addition to the reviewed literature, the statistical records of the Ministry of Health were used to collect secondary data. The primary data were collected via questionnaires and interviews. The questionnaire was completed by private insurance patients in six private hospitals contracted with the Shiekan medical network in Khartoum city during 2010. Key informants in the medical insurance department of ShiekanInsurance were interviewed.
Findings: The main findings revealed that private health insurance is gaining importance in Sudan due to its provision of comprehensive medical services with high standards, the high satisfaction of patients' needs, and ease of access and use procedures. However, absolute levels of coverage are still very low and the system faces many difficulties.

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Practical implications: The knowledge and information generated by this paper will aid in better understanding the role of private health insurance services in Sudan. It will also strengthen the research capacity in the health sector, which is very limited in Sudan. The study is intended for policy-makers and programme managers working in the ministries of health in Sudan. It will also be of interest to professional organizations and academics.
Originality/value: Although private health insurance has been an important research topic for many developed countries, verylittle research has been carried out in Sudan. This study has analysed the potentiality of private health insurance in Sudan regarding equity, utilization, access, efficiency and quality in health services.

Keywords: *Sudan*; *Developing countries*; *Private health insurance*

INTRODUCTION

All developing countries face three major health policy questions: how to mobilize sufficient funds to finance healthcare, how to allocate those funds and organize health care delivery to produce the most health benefits for the largest number of people, and how to control the cost of that care. Unfortunately,since the global economic downturn of the early 1980s,many developing countries have had to reduce their governmental funding for health care, which has affected their funding of hospital, clinics, primary care and prevention programmes. As a result, many systems for financing health services have been introduced. Health insurance was introduced as a means of contributing to the improvement of health sector efficiency, equity and sustainable financing.

SIGNIFICANCE OF THE STUDY

Many studies have found that the insurance system has serious implications regarding equity, utilization, access, efficiency

and quality in health services. There exists an urgent need to study these implications following the experiences of private health insurance (PHI) in Sudan. The outcomes of this study are therefore greatly needed to evaluate this experience.

RESEARCH QUESTIONS

The application of private health insurance in Sudan began recently,at the end of the 1990s, and until now, few serious attempts have been made to evaluate this new system. A lot of questions have therefore arisen, including the following:

- What are the potentialities of private health insurance as a system for financing health services in Sudan, and how it can be adopted in a wider manner?
- How can private insurance coverage be extended in a country like Sudan where the majority of people are poor?
- What is the impact of private health insurance on the availability of and accessibility to health services?
- What is the impact on efficiency, cost and quality of the services?
- What are the obstacles and challenges that face the private health insurance experience?
- How can these difficulties be eliminated?

OBJECTIVES OF THE STUDY

The overall objective of this study is to focus mainly on reassessing the current and potential role of the private health insurance experience in Sudan. The objectives of the study

can be stated in more detail as follows:

- To evaluate the main features of the private health insurance system and its objectives through examining the experience of Shiekan Insurance Company (Ltd).

- To examine the impact of a private health insurance system on the provision, utilization, access, efficiency and quality of services in Sudan.

- To reveal the limitations and obstacles that face the private health insurance system, and to explore the necessary measures that help in promoting and developing this experience in Sudan.

LITERATURE REVIEW

INTRODUCTION

Despite various efforts to improve the health situation in low- and middle-income countries, many countries are still far from achieving a reasonable health status. Jeffery D. Sachs presented the report of the Commission on Macroeconomics and Healthto the DirectorGeneral of the World Health Organization (WHO) in December 2001. This report recommended that in partnership with high-income countries, the world's low- andmiddle-income countries should scale up the access of the world's poor to essential health services, with a focus on specific interventions. The low- and middle-income countries would commit additional domestic financial resources, political leadership, transparency and systems for community involvement and accountability in order to ensure that adequately financed health systems can operate effectively and are dedicated to key health problems (Ibid. pp. 18-19).

WHAT IS PRIVATE HEALTH INSURANCE?

Insurance as a way of financing health care is divided into social insurance and private insurance. Private health insurance is a mechanism for people to protect themselves from the potentially extreme financial costs of medical care if they become severely ill and ensure that they have access to healthcare when they need it (Claxton, 2002). Private health insurance therefore pools the risk of high healthcare costs across a large number of people, permitting them (or employers on their behalf) to pay a premium based on the average cost of medical care for the group of people. This risk-spreading function helps the cost of healthcare to be reasonably affordable for most people.

Private health insurance schemes may be distinguished by the degree of coverage, the type of insurance business (profit v. non-profit), and whether or not they employ some sort of cost sharing (Drechsler and Jütting, 2005).

The distinguishing feature of private insurance is that the buyer voluntarily purchases insurance from independent, competitive sellers who charge premiums that reflect the buyers risk rather than his or her ability to pay. Voluntary purchase of insurance can be made on an individual or group basis (Report of the Commission on Macroeconomics and Health 2001, p.10).

THE BENEFITS AND DISADVANTAGES OF PHI

The report from the Commission on Macroeconomics and Health explained that the interest in private insurance is justified by the fact that private insurance will raise additional resources. Since non-payers are not covered, the problem of tax evasion is avoided. Advocates of private insurance also

argued that when people are able to choose a plan and an insurer, they feel more empowered and are therefore more willing to pay for healthcare (Report of the Commission on Macroeconomics and Health Op cit, p.11).

Regarding the benefits of private health insurance, Sekhri and Savedoff (2004) reported that when appropriately managed, there are several ways in which private health insurance can play a positive role in improving access and equity in developing countries. First, out-of-pocket spending on health services is the most common form of health financing in developing countries,and represents a significant financial burden for households. Private insurance gives households an opportunity to avoid large out-of-pocket expenditure and can therefore provide access to financial protection that is otherwise lacking. Second, many developing countries have public expenditure for health of less than $10 (USD) per person per year. However, the Commission on Macroeconomics and Health advised that it costs $34 per person annually to provide a package of essential health intervention (Sekhri and Savedoff, 2004).

Private insurance can be classified by the different roles it plays in the health financing system. When it provides *Principal Coverage*, private insurance is the primary form of prepayment for some portion of the population. For example, in the United States (US), private health insurance provides the main coverage for the non-poor who are under 65 years of age. In *Supplementary Coverage*, private insurance complements coverage provided by a publicly funded system and covers a limited set of interventions that address the particular gaps in a country's public coverage. For example, insurance policies may cover residual healthcare costs (such as co-payments in France) and services not included in the basic publicly funded package (such as outpatients or dental care in Slovenia), (Ibid, pp. 5-6).

Private coverage, when appropriately regulated, may be one method of moving towards prepayment and risk-pooling until publicly funded coverage can expand sufficiently. It also allows policy-makers to aim limited public resources at the most vulnerable groups. Third, the historical lessons in the gradual expansion of financial protection and the development of institutions may be useful in informing policy debates in developing countries as they consider moving towards public insurance systems. Finally, private health insurance continues to be important even in countries where universal coverage has been achieved. Policy-makers who plan ahead for this supplementary role will be better prepared to ensure that private coverage complements public systems as they develop (Ibid, pp. 3-4).

Private insurance beyond the complementary or supplementary categories would be a way of increasing the overall resources devoted to healthcare, and eventually, of reducing waiting times. Financing the private healthcare sector via private insurance would serve as a safety valve tocontribute when the public system falls short and waiting lists grow too long. According to OECD economists, in countries where private health insurance plays a prominent role, it is credited with injecting resources into health systems, adding to consumer choice, and helping to make systems more responsive (Managerial Economic Institute, 2009).

THE INTERNATIONAL EXPERIENCE OF PHI

The international situation regarding private health insurance suggests that the role of private insurance depends on the country's wealth and institutional development. In many lower- and middle-income countries, private insurance may be the only form of risk-pooling available and it usually provides principal coverage to those in the formal sector. In most OECD

countries, with the exception of the US, PHIprovides supplementary coverage to a predominately publicly funded system.

Among wealthy countries, Australia and Ireland are unique in explicitly uncovering private health insurance as a strategy to complement public financing. Private health insurance markets also exist in Africa with South Africa, Namibia and Zimbabwe funding more than 20 per cent of healthcare costs through private insurance. Regulation of insurers tends to be weak and private insurance may lead to greater inequity and cost-escalation if it expands significantly. Botswana, Cote d'ivoire, Kenya, Madagascar and Mali also have a relatively large market. It is noteworthy that in Africa, private coverage has often emerged as the result of market forces and *laissez faire* government policies towards the private sector (Sekhri and Savedoff, 2005).

The US is the only rich country to rely on voluntary private insurance to provide coverage to most of its citizens(over 70 per centof the population). The private insurance market is heavily regulated in the US, with many states operating a mandate community rating or prohibiting fully risk-rated premiums, and specifying tight rating bands for premiums in order to encourage small groups and individuals to obtain affordable coverage.

In many developing countries, private health insurance serves the middle class, and many afford some degree of financial protection for the poor. Several studies have examined private health insurance as an alternative to government schemes, including Liu and Chen (2002), in Taiwan. The key findings of this study were that income and education had a positive impact on the demand for private insurance, together with being a married female and working in a state-run enterprise (Ibid, p. 131).

THE HEALTH SECTOR AND HEALTH FINANCING IN SUDAN

The heath sector in Sudan is organized primarily around the activities of the federal and state Ministries of Health, which play the dual roles of policy-making and care provision. Historically, from the colonial period until the beginning of the 1990s, the government was almost the sole provider of health services in Sudan; heath services were offered free of charge. Due to the pressures of economic hardship and the prescriptions of the International Monetary Fund (IMF) and World Bank (WB) through the Structural Adjustment Programs (SAPs), the government started progressive change in the healthcare system. Under the federal system, which had been in place since the mid-1990s, the responsibility of financing and managing most of the health system was moved to the states and localities. User fees were introduced in the early 1990s as part of the economic reforms and adjustment programmes (Suliman, 1999).

The government health system in Sudan was challenged during the 1990s by a combination of decentralization of responsibilities and funding cuts. The public health services in Sudan are therefore administratively organized in a three-tiered system: the Federal and State Ministries of Health, and the local health authorities (municipalities). In addition to the public system, universities, the police, the military, NGOs and private groups also run clinics and hospitals and contribute to the delivery of health care services.

On the one hand, only the most wealthystates and localities have sufficient financial resources andmanagerial capacity to fully take up their new responsibilities. On the other hand, government austerity measures have limited transfers of financial resources from the centre to the states. These factors have

led to the deterioration of the primary healthcare system, particularly in rural and peripheral areas. One estimate is that less than half of primary healthcare units are staffed with community health workers. Another outcome of these factors is significant regional disparities in health services, which follow the centre-periphery pattern shown by the MDG indicators (Sudan Health Status Report 2003, p. 7).

INFANT MORTALITY RATE (IMR)

According to Table 1, there is improvement in the general situation as the IMR declined from 135/1000 in 1955/65 to 108/1000 in 1983. Therate rose to 116/1000 during 1980-85. Estimates for the period 1985-90 show a decline to 104/1000. However, the raterose again to 110/1000 in 1993.

LIFE EXPECTANCY

Available data show that in recent decades, Sudan has been unable to achieve an increase in life expectancy at birth of more than 12 years. Life expectancy at birth was estimated to be approximately 41 years at the time of independence (1956). It then increased to 53.9 in 1993 (Sudan Program of Action for Development [200-2010], 2001, p. 22).

Source		IMR Value
Census	1955-56	135
Census	1973	110 – 120
Census	1983	108
UN estimates	1980-85	116
UN estimates	1985-90	106
UN estimates	1990	104
Census	1993	110

Source: Government of Sudan and UNICEF, 1996

Table 1:
Infant mortality rate (IMR) in Sudan in selected years

Babiker (2000) made a comparison between life expectancy at birth in Sudan and other African countries. He showed that life expectancy at birth for Sudan is one of the shortest in Africa, as can be seen from the gap between Sudan and the African average for the selected years for both sexes.

NUMBER OF HOSPITALS AND HOSPITAL BEDS

Table 2 clearly shows that the number of hospitals per 100,000 of the population remained at the virtually constant level of 0.9 during the period 1993-98. Hospital beds per 100,000 reflect a declining trend since 1993. However, the figures are low when compared to the Sudan National Comprehensive Strategy (SNCS) 1992-2002 target of 40,000 people with one hospital.

Table 2: The number of hospitals & hospital beds per 100,000 of population

Year	Rate of Hospital per 100,000 of pop	No. of beds per 100,000
1990	0.8	72.0
1991	0.8	75.8
1992	0.8	74.7
1993	0.9	84.2
1994	0.9	85.5
1995	0.9	85.5
1996	0.9	81.0
1997	0.9	79.0
1998	0.9	77.0
1999	1.0	62.2
2000	1.0	74.2
2001	1.0	73.0
2002	1.0	72.6
2003	1.0	71.3
2004	1.0	72.0
2005	1.0	73.7
2006	1.0	73.2

Source:Sudan in Figures, Central Bureau of Statistics (1988-2000) (2002-2006)

In addition,there is an unfairgeographical distribution of health facilities between states in Sudan. All statistics (e.g. Annual Statistics, FMOH) revealed that health facilitiesare concentrated in Khartoum, Gezira and the River Nile States.

HEALTH MANPOWER

Table 3 shows that most of the health manpower indicators saw a slight improvement during the period 2000-2007 due to the expansion in higher education. Every year approximatelythree hundred graduate physicians join the services from national universities in addition to between fifty and one hundred who arrive from other countries after qualification (UN, Final Report, 1998; p. 25). Despite this, the increase in the total number of medical practitioners is low. This is attributed to the service's low rewards within Sudan and the consequent migration of physicians to oil rich countries and to Europe. In addition, the bulk of the health manpower is concentrated in urban areas, particularly in the capital city, to the neglect of rural areas.

Table 3: Health human resources per 100,000 of population

Years	2002	2003	2004	2005	2006
Doctors	17.6	18.4	20	22.6	**28.6**
Specialist	3.0	3.1	3.3	3.6	**4.5**
Dentist	0.6	0.7	0.8	1.0	**1.1**
Pharmacist	2.0	2.0	2.0	2.5	**3.2**
Technician	9.4	9.5	11.3	13.3	**14.7**
Medical Assistant	21	20	20	19.5	**19.7**
Nurse	50.4	51.0	49	50.6	**50.8**
Public health officer	**1.1**	**1.1**	**1.3**	**1.6**	**1.9**

Source: Annual Statistics, FMOH, (2002-2007)

Sudan public expenditure on health is among the lowest in the sub-Saharan African region. It decreased from LS 8.4 million in 1980/1981 to LS 6.78 million in 1993/94. Health expenditure per capita declined from 0.47 in 1980/81 to 0.24 in 1993/94 (Babiker, 2000). The low overall expenditure levels on health are one factor responsible for poor health indicatorsin the Sudanese, for whomlife expectancy at birth is one of the shortest in Africa at 57.9 years in 2009 (UNDP Human Development Report 2000, p. 62-63).

In 2003, the Sudan Health Status Report showed that recently, increased government resources (largely due to oil revenues) have allowed an increase in public expenditure on the health sector. The combined federal and state spending on the government health system doubled between 1999 and 2002, and is budgeted to increase by a further 70 per cent in 2003. However, it also revealed that as a proportion of total government spending, public health expenditure has remained relatively constant at between 2 and 3 per cent. Similarly, government spending on health has remained at less than 1 per cent of GDP, both in absolute and relative terms at $4 (USD) per capita and under or around 1 per cent of GDP. Government health spending in Sudan ranks among the lowest in the world (Sudan Health Status Report Op cit, p.7).

The Annual Health Statistical Report of the Federal Ministry of Health indicated that total government expenditure on health was 294701371 L.S, the percentage of health expenditure to total expenditure 1.4 per cent and the percentage of health expenditure to GDP was 0.31 per cent (Federal Ministry of Health, The Annual Health Statistical Report 2007, pp.31-32).

HEALTH FINANCING IN SUDAN

Notwithstanding the above statistics, total health expenditure seems to be considerably higher. Along with decentralization, reforms in the mid-1990s included a national health insurance scheme, institution of user fees at public facilities, and encouragement of private sector provision. Out-of-pocket payments for health services are therefore considerable, including significant expenditure by the wealthyonhealthcare abroad. Although no data are available on household health spending, it is estimated that total out-of-pocket expenditure is as large as or larger than total government health spending (that is, 1 per cent or more of GDP). In addition, the national health insurance scheme similarly spends around 1 per cent of GDP, so that total health expenditure in northern Sudan is likely to be in the range of 4 or 5 per cent of GDP, or $15to $20 per capita. This level would be consistent with the lower range of total spending in countries in sub-Saharan Africa (Sudan Health Status Report Op cit, p.8).

A national health insurance programme plays a considerable role in health spending, and this was introduced in the mid 1990s. In 2004,the Social Insurance Act was amended and the National Health Insurance Corporation was transformed into the National Health Insurance Fund, giving the centre more power over resources and managerial aspects. Comprehensiveness, Universality, Portability and Accessibility remain issues of concern during the ten year lifespan of the social health insurance.

The insurance scheme, with branches in each state, covers about 8 per cent of the population. Of those covered, 75 per cent are government employees, 6 per cent are poor families, 3 per cent are the families of martyrs, and 2 per cent are students. The premium is 10 per cent of salary, 60 per cent of which is paid by the employer (the government) and 40 per

cent by the employee. The premiums for the poor and others are covered by various government programmes and charities (Sudan Health Status Report, 2003, p. 68).

The Health Insurance Scheme (HIS) in Sudan is funded through a variety of sources, including 10 per centof the gross wage (4 per cent from the employee and 6 per cent from the employers). The government pays the premiums of retirees, poor people and full time students from its various organizations, such as the Zakat Chamber. Those not in the formal sector who are willing to join have to pay a total of L.S 12,000 annually ($47 annually per family), paid on monthly basis (Mohamed, 2007).

Insured individuals are registered at a health centre, which acts as a gatekeeper for referrals, and buy drugs at government pharmacies, paying 25 per cent of the cost. The system has large administrative costs, estimated at 25 per cent of expenditure, although it is reported to have difficulties in premium collection and in information systems. Of the remaining expenditures, 40 per cent are on health care services and 30 per cent on drugs. The national health insurance programme is reported to spend around $90 million(USD) annually (Sudan Health Status Report, Op cit, p. 68).

In 2002,the National Health Insurance Fund annual report indicated that about 5.4 million people are covered (15.3 per cent of the total population in 2005). In 2002, 76 per cent of the covered populations were government employees, 4.2 per cent were poor families, 2.8 per cent were the families of martyrs, 2.4 per cent were students and 5.9 per cent were members of the informal sector (National Health Insurance Fund Annual Report, 2002). In 2005, HIS provided limited insurance coverage for only 13 per cent of the population. Most of the insured individuals (85 per cent) were public sector employees, 6 per centwere members of the informal sector, 4 per

centwere poor families, 3 per centwere the families of martyrs and 2 per centwere students (Mohamed, Op cit p.21).

In the mid 1990s, user fees for government health services were introducedas part of the economic sector reforms and adjustment, but included exemptions for vulnerable groups and for the use of emergency services. The impact of the introduction of user fees in public health facilities is not well documented, however, anecdotal evidence suggests that they havesignificantly affected access and utilization of health services with little or no significant improvement in availability and quality of care. No data are available on household out-of-pocket payments for health services.

Apart from humanitarian programmes and support for vertical programmes (particularly immunization), international assistance to the health sector in northern Sudan has not been significant since the suspension of development aid to Sudan by major donors in the early1990s. Thus, at present, estimates of total government spending on health are around $100 million, expenditure by the national insurance scheme is around$90 million, and spending by Sudanese on health services abroad is reported to be of a similar magnitude. The resulting total of perhaps $300 million(or less than 3 per cent of GDP) does not include out-of-pocket payments within Sudan, which are likely to be substantial given the importance of the private sector in the cities as well as the system of user fees for public services. The inclusion of such out-of-pocket spending could bring total spending to 4 or 5per cent of GDP, which is equivalent to $15 to $20 per capita. These estimates are speculative, but suggest that the overall resources available for health services in northern Sudan are not insubstantial, although they are still in the lower range of what is found in other countries in Africa (Sudan Health Status Report, Op cit, p. 69).

RESEARCH METHODOLOGY

Research setting

The study was conducted in Khartoum State because it is a leader state regarding the implementation of the private health insurance system, especially Shiekan Insurance Company (Ltd.). The results obtained are therefore assumed to be more representative.

DATA SOURCE AND TYPE

Both secondary and primary data are used in the study. Secondary data were obtained from the relevant studies, books, official reports and internet sites. Primary data were collected through a questionnaire and interviews.

DATA COLLECTION TECHNIQUES

The questionnaire was conducted with patients in some private healthcare facilities. Interviews with key informants in Shiekan were also used to support the questionnaire.

SAMPLING PROCEDURE AND SIZE

The survey was conducted in health facilities in Khartoum State providing insurance services.In determining the size of the sample; the following formula was used:

$$n = \frac{Z^2 PQ}{E^2}.$$

n= sample size, p=the proportion of an attribute that is a percentage of the population. Q=1- P

Z= the abscissa of the normal curve that cuts off an area at the trails (1- confidence level) (95per cent).

E = confidence interval.

On the advice of some statisticians regarding the characteristics of the population and the non availability of previous studies, the following formula is suggested:

At 95% level of confidence, $\alpha = 0.05$ (very common choice) the critical value Z = 1.96, P = 0.5, Q = 0.5, E = 0.5 (using a lower margin of error that increases with more accurate results).

$$n = \frac{(1.96)^2 (0.5)(0.5)}{(0.05)^2} = 384$$

DATA ANALYSIS

Both qualitative and quantitative analyseswere adopted in the study. Both descriptive and inferential analysis tools were used, including frequencies and tabulation. Qualitative analysis was used to supplement the descriptive portions.

EMPIRICAL FINDINGS

Overview of Shiekan Insurance and Reinsurance Company(Ltd.)

Shiekan Insurance and Reinsurance Company(Ltd.)is a Sudanese company established in 1983. In (2005),Shiekan came to occupy a leading position, holding approximately 70per cent of the market share of insurance. Shiekan medical insurance is one of the insurance services provided by many private insurance companies in Sudan. Shiekan began

providing medical insurance inJuly 2002, with insured access to privately delivered care that included many of the services provided by the private health sector in Sudan. Shiekan's subscribers retain full access to treatment and a more comfortable care environment. They also have a wider choice of specialists, treatment facilities and timing of treatment (www.shiekanins.com\ 3/12/2010).

Table 4 shows that Shiekan's medical network is extensive, with large numbers of hospitals, doctors and pharmacies.

Table 4: Shiekan medical network in 2009

Hospitals	Centres	Dentists	Doctors	Labs	Optical	Pharmacies	Physiotherapy	X-rays
161	37	39	793	145	36	226	1	28

Source: Shiekan statistics

Table 5: Number of insured, premiums and claims in Shiekan medical insurance during 2003-2009

Years	Premiums paid SDG	Numbers of insurers		Number of claims	Claims paid
		Families	Institutions		
2003	3743161	N/A		984	4159566
2004	4645387	N/A		127224	5773542
2005	12863793	N/A		170491	7656224
2006	16055592	41850		269081	12595228
2007	28045237	596	57787	400076	18983237
2008	42375493	697	95152	641130	30097096
2009	41556914	1625	102566	N/A	29260872

Data for 2009, from Jan to August 2009. Source: Shiekan statistics

As shown inTable 5, the total numbers of insured increased gradually during 2003-2009, but the coverage of the total population is still very low. The majority of those insured are institutions. For example in 2009, the total number of those insured was 104191, with about 98 per cent institutions and only 2 per cent families (individuals). The increasing number of claims and claims paid by Shiekan indicates the excessive use of the services.

QUESTIONNAIRE ANALYSIS

The questionnaire was conducted in six private hospitals contracted with the Shiekan medical network in Khartoum city during the year 2010. Khartoum State is divided into three towns: Khartoum, Khartoum North and Omdurman. It has more than six million inhabitants, which represent about 18-20 per cent of the total population of Sudan. Khartoum State has a relatively better level of healthcare compared to the other States in Sudan.

Gender	Frequency	%
Male	145	58%
Female	105	42%
Total	250	100%

Table 6: Gender

From Table 6, it is clear that of the 250 surveyed users of Shiekan's private medical insurance system, 58 per cent were male and 42 per cent were female, so there are no sex differences between private insurance users.

Table 7: Education level of respondents

Level of education	Frequency	%
Illiterate	8	3%
Primary	38	15%
Secondary	70	28%
University	118	47%
Postgraduate studies	16	7%
Others	0	0%
Total	250	100%

The educational level of the respondents, as demonstrated by Table 7, is higher among insurance users: 78% completed secondary, university and postgraduate studies.

Table 8: Occupation sector of respondents

Occupation	Frequency	%
Public/government sector	80	32%
Private sector	170	68%
Total	250	100%

Table 8 indicates that the majority of the private health insurance users are from private institutions (68 per cent) who are able to use these services according to income capabilities, while (32per cent) of the respondents are public sectorworkers.

Income level	Frequency	%
Less than 500 SDG	0	00%
500–1000 SDG	25	10%
1000–2000 SDG	68	27%
2000–5000 SDG	105	42%
More than 5000 SDG	52	21%
Total	250	100%

Table 9:
Respondents monthly income levels

As Table 9 shows, total monthly income varies, but the majority (42 percent) of the respondents have a monthly income range of 2000–5000 SDG, while 27 per centhave an income of 1000–2000 SDG and 21 per centearn more than 5000 SDG. These percentages indicate that the high income groups utilize private insurance services more than lower income groups. As the poor represent a high percentage of the whole country, this insurance system plays a small role, as its coverage rates are generally below the high rate of the population.

Shiekan's medical services are:	Frequency	%
Excellent	108	43%
Good	78	31%
Reasonable	43	17%
Not good	16	7%
Other	5	2%
Total	250	100%

Table 10:
Respondents ratings of the medical and health services provided by Shiekan

Table 10 presents the perceived quality of services provided by the company. It indicates that 74 per cent of respondents agreed that the quality of services in Shiekan's private insurance are good and excellent, while 17 per cent agreed that they are reasonable. Only 7 per cent indicated that they are not good.

Good Features of the Medical Services:	Agree	%	Disagree	%
Quality of health service in comparison with other types of services	180	72%	70	28%
Good care of patients provided by doctors and hospital managers	178	71%	72	29%
Doctors working in Shiekan's network have good reputations	88	35%	162	65%
Treatments always take place in the best private hospitals	172	69%	78	31%
All types of diseases are covered	65	26%	185	74%
High flexibility of hospital managers in dealing with patients	170	68%	80	32%

Table 11: Good features of the medical services provided by Shiekan

Respondents cited quality of health service provided in comparison with other types of services (72 per cent of respondents), good care of patients provided by doctors and hospital managers (71 per cent), high flexibility of hospital managers in dealing with patients (68 per cent), and treatment always taking place in the best private hospitals (69 per cent) as the best features of the medical services provided by Shiekan (Table 11).

Negative Features of the Medical Services	Agree	%	Disagree	%
Long and slow managerial process in hospitals	45	18%	205	82%
Network hospitals are not the best private hospitals	60	24%	190	76%
The services do not cover all types of diseases and investigations	183	73%	67	27%
The size of premiums paid and the payments process	170	68%	80	32%
Some highly qualified and good doctors are not included in this service	168	67%	82	33%

Table 12: Negative features of the medical services provided by Shiekan

In contrast, about 73 per cent of respondents cited the following negative features of the medical services presented by Shiekan: services do not cover all types of disease and investigations; premium size and the payments process (68%); some highly qualified and good doctors are not included in the service (67%) (seeTable 12).

Perception of treatment costs	Frequency	%
Lower	13	5%
Reasonable	83	33%
High	80	32%
Very High	72	29%
Others	2	1%
Total	250	100%

Table 13: Perception of treatment costs in Shiekan's medical services

Table 13 presents perceptions of the cost of the services provided by Shiekan. It indicates that 61 per cent of respondents agreed that the cost of the services in Shiekan's private insurance is high or very high, while 33 per cent agreed that it is reasonable. Only 5 per cent agreed that it is low.

Table 14: The cost of treatment in comparison with the services provided by Shiekan medical services

The cost of treatment is reasonable in comparison with the services provided	Frequency	%
Yes	78	31%
No	145	58%
Other	27	11%
Total	250	100%

Table 14 indicates that 58 percent of respondents agreed that the cost of services in comparison with the services provided by Shiekan medical services is unreasonable, while 31 per cent agreed that it is reasonable.

Table 15: Reasons for the high cost of medical services

The high cost features of the medical services:	Yes	%	No	%
Meeting doctors	138	55%	112	45%
In-patients costs	215	86%	35	14%
Drugs and different treatments	140	56%	110	44%
Operations	175	70%	75	30%
Nursing	160	64%	90	36%

As shown in Table 15, the respondents cited the following reasons behind the high cost of medical services through Shiekan: in-patients costs (86 per cent), operations (70 per cent) and nursing (64 per cent). Other reasons were also cited, such as the costs of meeting drugs and different treatments.

Users of Shiekan medical services	Yes	%	No	%
Normal people from the whole population	33	13%	217	87%
Employees in high income institutions	210	84%	40	15%
Employees in a normal institutions without any distinction	85	34%	165	66%
Businessmen and high income individuals	180	72%	70	28%

Table 16: The users of Shiekan medical services

Table 16 indicates that the beneficiaries who use Shiekan medical services are mostly employees in high income institutions and business men and high income individuals.

Have you participated in other types of health and medical insurance	Frequency	%
Yes	163	65%
No	82	33%
Other	5	2%
Total	250	100%

Table 17: Participation in other types of insurance systems

Table 17 shows that about 65 percent of respondents have participated in other types of insurance system before joining Shiekan medical services, compared to 33 per cent who have not participated. Based on this result and the results presented in Table 11, it is clear that this system is expected to put some pressure on the supply side of the healthcare system, as it creates inequality in the distribution of services, via its concentration on wealthy individuals and institutions.

Table 18: Perception of Shiekan's performance compared to other types of insurance

Shiekanperforms better than other types of insurance in:	*Agree*	*%*	*Disagree*	*%*
Participation process	147	59%	103	41%
Type of health services rendered	185	74%	65	26%
Availability of health services	95	38%	155	62%
Access and use of health services	197	79%	53	21%
The cost of health services	88	35%	162	65%

Table 18 indicates that comparedwith other insurance services, Shiekanis better in the following areas: access and use of health services (79 per cent), type of health services rendered (74 per cent), and participation process (59 per cent). Respondents indicated that Shiekan services perform no better than others in the availability and cost of health services.

Table 19: Patients' perceptionsof degree of government regulation inShiekan medical services

Is there any type of government regulation operational inShiekan medical services?	*Frequency*	*%*
Yes	68	27%
No	175	70%
Other	7	3%
Total	250	100%

Approximately 70 percent of respondents felt that there are no government regulations controllingShiekan services, while 27 percent agreed that there are some government regulations(Table 19). This result indicates that opening up markets for PHI without an appropriate regulatory framework might lead to increasing inequalities in access to healthcare. It may also lead to cost escalation and widening of the rich-poor divide.

INTERVIEW ANALYSIS

General information about interviewees

The interviews conducted with thirteen employees from Skiekan'smedical insurance department have shown the following: the participants' jobs vary from general officers to section head. With respect to education, all participants helda basic university degree, and some held postgraduate qualifications.The data on years of experience show that the majority of interviewees had modest experience (7-9 years) and few had lengthy experience (17-27 years).

The high percentage of participants working in public or private institutions

The majority of the interviewees agreed that the high percentage of participants in Shiekan's medical insurance were from private institutions (private institutions represent over 70per cent of total participants). This is mainly because the high costs of this service require a high income level that is mostly achievable only in private institutions—few public institutions remunerate their workers highly. This result supports the questionnaire findings, in which the majority of private health insurance users were from private institutions (68per cent).

The advantages of medical insurance services in ShiekanInsurance Company (Ltd.)

The majority of interviewees expressed the following advantages inusing Shiekan's medical insurance:

1. Comprehensive medical services with high standards.

2. High satisfaction of patients' needs.

3. Ease of access and use of the services.

4. Pre-contracting with medical providers guarantees stability in price level in the short term.

The differences between the medical insurance in Shiekan and other institutions working in the same medical services

Many differences exist between the medical insurance services in Shiekan, and other institutions working in the same medical services. These include extensive medical networks, comprehensive and multiple types of medical services provided, a high insurance ceiling, differences in the financial and technical capability of the company, and multiple providers of medical services from the best institutions.These results are similar to those revealed by the questionnaire regarding the best features of the medical services provided by Shiekan.

The disadvantages of Shiekan's medical insurance services

The study revealed the following disadvantages in the Shiekan system: non-availability of highly specialized medical staff in some medical institutions; the company does not own private

hospitals and medical institutions; the service coverage is not satisfactory; the high cost of premiums make it difficult for poor families to participate in the service; the ceiling system does not allow coverage ofcertain medical needs, including open heart surgery;occasional irregularity in payment of instalments by the company;an inefficient computer system; and inefficient marketing strategies.

Do the institutions get benefits when their employees subscribe to medical services throughShiekan?

The study revealed that the institutions involved receive benefits when their employees subscribe to Shiekan'smedical insurance services, but these vary between institutions. However, the most important benefits include the ability to minimize the budgets allocated to medical service in these institutions, and to clarify and specify the budget allocated to medical care. The interviewees also said that Shiekan medical insurance services reduce the management burden in these institutions regarding medical services. In addition, their employees gain a high level of satisfaction and comfort regarding their medical needs, and cheating on medical bills by employees isminimized.

Shiekan medical insurance services in different states

Data analysis revealed that Shiekan provides medical insurance services in different states through medical networks available in those states. These services are not of high quality because the system depends upon the medical services already available in these states, which are unsatisfactory and face as many difficulties as the health services face in most Sudanese states.

Shiekan medical insurance is offered only to the wealthy and to those with the ability to pay

The interviewfindings support the hypotheses that Shiekan medical insurance is offered to wealthy people or those with the ability to pay, and the services do not cover a high percentage of people. This low coverage therefore affects the size, type and quality of the services provided. The image of Shiekan medical insurance is frequentlyaccompanied by visions of unequal access, large numbers of uninsured people and elite healthcare for the rich. This is similar to the situated cited by Sekhri and Savedoff in 2005. They argued that unregulated or poorly designed private health insurance systems can indeed exacerbate inequalities, provide coverage only for the young and healthy, and lead to cost escalation (Sekhri and Savedoff, 2005)

The study also found that all people are equal as far as this service is concerned but there are additional costs for parents and a ceiling on treatments for those with chronic diseases. It is therefore not completely clear whether or notadverse selection takes place in Shiekan's medical insurance services in which Shiekan select the healthier members of society in an attempt to minimize the healthcare use they will have to fund.

Findings of the evaluation of Shiekan medical services

Data analysis revealed the following regarding the effectiveness, efficiency, equity and economyof Shiekan medical insurance:

- The services have a high degree of effectiveness. Most respondentsexpressed the belief that Shiekan medical insurance produces perceptible health gains and reduces suffering in participants.

- The services are efficient, as the Shiekan insurance system provides more care per amount of money spent.

- Equity is not completely applicable in the system, as patients without money cannot participate. Discrimination according to income is therefore active.

- Economically, Shiekan provides a high cost service which cannot be afforded by poor families. However, it is similar to the cost of private health services in the country.

The misbehaviour of patients and medical providers in ShiekanInsurance Company (Ltd.)

The interviewees revealed that patients' misbehaviour was clear in the excessive use of medical service without real needs. Some patients began the process of specialised treatment for the types of illness that can be treated by general doctors, and cheated by using medical insurance cards.

The misbehaviour of the medical institutions was clear in the provision of extra medical servicesthat were not actually needed by patients, and by providing reducedamounts and quality of health services.

A moral hazard is therefore apparent in Shiekan'smedical insurance services. Neither the users nor the providers have an incentive to be cost-conscious. The consumer, faced with free or low cost healthcare at the point of service, has little or no financial incentive to restrain their demands on the service. Likewise, doctors have no financial incentive to control such demands.

The majority of respondents assumed that the behaviour of patients and medical institutions affects Shiekan's services

throughincreasing costs, which results in higher premiums and higher prices for services rendered.

Recommendations for enhancing Shiekan medical insurance

The majority of interviewees proposed the following recommendations to enhance the effectiveness, efficiency, equity and economy of Shiekan medical insurance services:

1. Shiekan should own some medical institutions in order to provide the services directly.

2. Shiekan insurance products should be diversified (different products and coverage at different prices).

3. Additional marketing efforts to increase coverage and reduce the cost of services.

4. The government should support these services in order to reach poor people.

5. Control and supervise the price, type and quality of the medical service provided, and organize the relationship between the company, the providers and the patients, in order to avoid the misbehaviour of patients and institutions.

6. Provide suitable training for medical insurance employees, in order to make the process simple and prompt.

7. Update the computer system in order to process the required reports concerning evaluation of weaknesses in services.

CONCLUSION

The study concludes that PHI beyond the services provided would be a way of increasing the overall resources devoted to healthcare. It could serve as a safety valve for times when the public system falls short and waiting lists grow too long. Eventually, waiting times can be reduced.

The introduction of PHI is promising in Sudan for the following reasons: Sudan has difficulties with traditional methods of healthcare financing and is looking for alternatives to increase coverage. PHI can therefore close the gaps left by other forms of financing healthcare in Sudan and it may play complementary or supplementary role in the Sudanese healthcare system.

Economic growth after discovering oil leads to higher income and diversified consumer demand. Globalization and economic flourishing will lead to more trade in the healthcare sector, which may result in improving PHI.

PHI is gaining importance in Sudan, as it is providing comprehensive medical services with high standards, high satisfaction of patients' needs and easy processing for access and service use, but levels remain very low in absolute spending in healthcare because elite healthcare for the rich does not cover a high percentage of people. Therefore large inequalities in access exist and large numbers of people are uninsured. This low coverage affects size, type and quality of services provided.

The government stewardship of PHI is weak in Sudan. The policies, regulations and incentives are not effective in regulating PHI. This results in inefficient operation, low quality services of some hospitals and clinics, high costs and low coverage especially for low income groups.

Private insurance threatens the public and private health system in Sudan. This happens as a result of the following: the advent of a parallel private system would not bring any new resources into the healthcare sector; the health system capacity and productivity have depreciated because equipment has not been purchased and no new hospitals or clinics have been built; and many specialists leave public hospitals to work in private institutions.

PHI does not cover many states and is concentrated mainly in Khartoum State. Coverage depends on medical networks available in each different state. These services are not of high quality because they depend on medical services already available in these states, which are unsatisfactory.

Moral hazards exist alongside PHI in Sudan. Neither the users nor the providers have an incentive to be cost-conscious. The user faced with free or low cost health care at the point of service has little or no financial incentive to restrain demands on the service. Likewise, doctors have no financial incentive to control such demands. Some medical institutions provide extra medical services that patients do not require and cheat over the size and quality of health services provided. These practices lead to increased service costs, which results in increased premiums and higher prices for services rendered.

STUDY RECOMMENDATIONS

- Policies to ensure equitable access may be justified. For example, the Ministry of Health must reduce the spread of untreated contagious diseases, or protect hospitals from the high costs of treating insured individuals.

- To protect users and increase coverage, the government should regulate premiums, benefit packages and profits of

insurance companies or offer tax relief to firms that enroll their employees in private insurance.

- To increase the type and quality of services available, the government must activate competition in PHI markets by providing more incentives to increase the numbers of insurance companies.

- These research results will also provide useful and practical tools for those policy-makers responsible for controlling, managing and operating the health service in Sudan.

Limitations of the study

The study has some potential limitations as data on private insurance such as expenditure, population covered, premiums charged and impact on the healthcare system are very limited and/or not available in the official reports of the Ministry of Health. This study used data on private insurance that was scattered throughout the records of Shiekan, which has several limitations due to lack of organization into official monthly or yearly reports.

FURTHER RESEARCH

In this respect, further research is clearly needed inorder to enhance understanding of the role of the private insurance system, specifically in the provision, affordability, access and use of health services in Sudan.

BIOGRAPHY

Dr. Yassir Abbas Saeedhas been an assistant professor of economics at the school of management studies, Ahfad University for Women, Sudan, since 2004. He holds a PhD

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REFERENCES

Babiker, M.A.(1996),"The impact of liberalization policies on health: Some evidence from the Sudan", Seminar Paper, no. 100. DSRC, University of Khartoum.

Babiker, M.A. (2000),"The Impact of Economic Crises on Health in Sudan 1978-1997", Unpublished M.Sc. thesis. Department of Economics, University of Khartoum.

Claxton,G. (2002),"How Private Insurance Work: A Primer", Kaiser Family Foundation. available at: www.kff.org/insurance/upload/7766.pdf. p.1

Drechsler, D. and Jütting, J.(2005),"Private Health Insurance in Low and Middle Income Countries: scope, limitations and policy response", OECD Development Centre, available at:www.oecd.org/dev/insights.

Drechsler, D and Jütting, J (2005),"Private Health Insurance for the Poor in Developing Countries?" OECD Development Centre,available at:www.oecd.org/dev/insightsFederal Ministry of Health, Annual Statistics Report, 2002-2007, Sudan.

Mohamed,G.K.(2007),"Financing Health Care in Sudan: is it a time for the abolishing of user charges",*Sudanese Journal of Public Health*, Vol. 2 No. 1.

Government of Sudan and UNICEF,(1996),"Situation Analysis of Women and Children in Sudan", UNICEF.

Joint Assessment Mission,(2005), Basic Social Services.

Managerial Economic Institute, (2009), Economic Note:"Using private insurance to finance health care", Managerial Economic Institute.www.iedm.org. (23/7/2009).

National Health Insurance Fund, (2002), Annual Report, Sudan.

Report of the Commission on Macroeconomics and Health,Macroeconomics & health: Investing in health for economic development, (2001).

Sekhri, N and Savedoff, W. (2004),"Private Health Insurance: Implication for Developing Countries", World Health Organization, Geneva,p. 3.

Sekhri and Savedoff, W. (2005), "Private Insurance: Implications for Developing Countries", *Bulletin of the World Health Organization*, Feb 2005, Vol. 83,pp.127-130.

Sudan Program of Action for Development (2001- 2010), 2001.

Sudan in Figures, (1988 – 2000), Central Bureau of Statistics. Sudan.

Sudan in Figures, (2002 – 2006).Central Bureau of Statistics. Sudan.

Sudan Health Status Report, (2003).World Bank/AFTH3,

August 2003, available at:www.emro.who.int/sudan/pdf.

Suliman, A.H.E.(1999),"The impact of structural adjustment programmes on the health sector in the Sudan: A case of Khartoum State",*Social Science Research Series*, No. 10, Addis Ababa: OSSREA.

The Report of Working Group-1 of the Commission on Macroeconomics and Health, WHO, 2002.

United Nation Development Program (UNDP),(1990 and 2000), Human Development Report, Oxford University Press, New York. www.Shiekanins.com\. Information on-ShiekanInsuranceCompany (Ltd.).