MANDATORY COMMUNITY-BASED HEALTH INSURANCE SCHEMES IN GHANA: PROSPECTS AND CHALLENGES

BY

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A DISSERTATION SUBMITTED TO THE HEALTH ECONOMICS UNIT, SCHOOL OF PUBLIC HEALH AND FAMILY MEDICINE, UNIVERSITY OF CAPE TOWN, IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF PUBLIC HEALTH (HEALTH ECONOMICS) DEGREE

MAY, 2005

DEDICATION

This work is dedicated to the

Glory of God

And

To my daughter, Angela Pomaa Sabi

DECLARATION

I declare that except for references which have been duly acknowledged, this research paper is my original work and has not been submitted either in whole or in part for any academic and or examination purposes at any other University.

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WILLIAM KWASI SABI

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DATE

ACKNOWLEDGEMENT

This work has been put together with the assistance of many people.

I owe an invaluable debt of gratitude to Professor Di McIntyre, my supervisor, for her diligence and tireless efforts in shaping my thinking, providing criticisms, suggestions and guidance that helped me to come up with this work.

I am grateful to Danish International Development Agency's Health Sector Support Office (DANIDA, HSSO) in Ghana for the kindness they extended to me in the form of scholarship that enabled me to pursue this course. I thank Ms Helen Dzikunu and Ms Rose Addo of DANIDA's office for their personal support and encouragement during my study period.

My thanks go to Christian Health Association of Ghana (CHAG), especially the Executive Secretary, Mr. Philibert Kankye who guaranteed my sponsorship and assured DANIDA of my return to Ghana after the course.

To my wife, Alice and my daughter Angela, I say thank you very much for your patience and endurance during my absence and for your prayers. I missed you.

I am grateful to the management, staff and members of Okwawuman Health Insurance Scheme, Ejisu-Juabeng District Health Insurance Scheme, Tiyumtaaba Welfare Association of Tamale, Mr. Kumih Kyeremeh, the Eastern Regional Health Insurance Coordinator, and Community

Partnership for Health and Development (CPHD) of Tamale for their understanding and support during my research.

To my research assistant, Gordon, I say continue being a nice guy. To Kaliki, Alex, Kemi and Wangenge, I say thank you for everything!

ABSTRACT

Community-Based Health Insurance Schemes are new forms of health financing that can increase resources available for a national health system. These schemes are often regarded as not feasible. Evidence from recent experiences however; show that if they are appropriately designed and managed they can be feasible and sustainable.

The successes achieved by such schemes in Ghana motivated the government to make them a mandatory system of health financing. The main objective is that every resident of Ghana shall belong to a health insurance scheme that adequately covers him or her against "cash and carry" (i.e. user fees) in order to obtain access to a defined package of acceptable quality needed health services without having to pay at the point of receiving service. This study sought to undertake a critical comparative study of the performance of voluntary and mandatory community health financing schemes in Ghana and assess their prospects and challenges in their effort to improve efficiency, equity and the schemes' sustainability.

The study, a qualitative one, employed descriptive survey techniques to evaluate the ability of schemes to finance their activities from their own sources and mechanisms put in place to cater for the poor and vulnerable, i.e. to evaluate with sustainability and equity respectively. The study also considered control measures to minimize cost escalation to assess efficiency.

Focus group discussions, key informant interviews and document reviews were used to examine performance of voluntary and mandatory schemes in meeting those criteria.

The study found that both voluntary and mandatory schemes were not self-sustainable due to low coverage and inadequate funds mobilized by the schemes. The main reasons for the general low enrollments are poverty, poor quality health service and limited benefit packages.

The study showed that including out-patient (OPD) services in the benefit package and quality improvements in health service improve members' acceptability of insurance hence increase membership rates which will eventually increase schemes' sustainability. Efficient and effective administration of risk equalization fund will help reduce differences in districts' ability to raise revenue owing to different levels of economic activities as well as local morbidities.

The study showed further that small community-based health insurance schemes (CBHIS) could be sub-district level financial intermediaries for the District Health Insurance Schemes. It was found in this study that a practical means testing mechanism to declare one poor in order to qualify for exemption from contribution should be adopted. The study also suggests that alternative reimbursement mechanisms to fee-for-service need to be considered.

The study suggests further research on equity in access and means testing. Such study should consider coming up with mechanisms for identifying the very poor in the communities and to put in place workable and sustainable measure to tackle the financial barriers to health care they face.

TABLE OF CONTENTS

CHAPTER THREE: RESEARCH METHODOLOGY

CHAPTER FOUR: RESULTS AND ANALYSIS

CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS

LIST OF ABREVIATIONS AND ACRONYMS

AIDS	:	Acquired Immunodeficiency
CAM	:	Carte d' Assurance Maladie
CBHIS	:	Community-Based Health Insurance Scheme
CHAG	:	Christian Health Association of Ghana
DANIDA	:	Danish International Development Agency
DHIS	:	District Health Insurance Scheme
DFID	:	Department for International Development
FFS	:	Fee for Service
FGD	:	Focus Group Discussion
GOG	:	Government of Ghana
HIV	:	Human Immunodeficiency Virus
HMO	:	Health Maintenance Organisation
HSSO	:	Health Sector Support Office
ILO	:	International Labour Organisation
MHO	:	Mutual Health Organisation
MOH	:	Ministry of Health
NHI	:	National Health Insurance
NHIC	:	National Health Insurance Council
NHIF	:	National Health Insurance Fund
NHIS	:	National Health Insurance Scheme
NGO	:	Non-Governmental Organisation
NPP	:	National Patriotic Party
OECD	:	Organisation of Economic Co-operation and Development
OPD	:	Out Patient Department
SHI	:	Social Health Insurance
SSNIT	:	Social Security and National Insurance Trust
VIP	:	Very Important Persons
WHO	:	World Health Organisation

LIST OF TABLES

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background to Study Problem

Under funding of health systems and health care are recognized global problems. These have come about as a result of the global economic crisis and the subsequent restructuring measures adopted by most countries, particularly in Sub-Saharan Africa (Bennett and Ngalande-Banda, 1994). Most of the countries in the sub region have found it increasingly difficult to allocate sufficient funds to their public health sectors and are seeking alternative means of financing health care. One such means is Community-Based Health Insurance Schemes (CBHIS).

In Ghana, Government has remained the backbone of health care delivery and financing since independence (1957). Immediately after independence, there was no direct out-of-pocket payment for health care. Financing of health care was entirely through tax revenue and donor support. The sustainability of this system became questionable with declines in the economy in the 1960s and 1970s. Hence in 1969, user fees were reintroduced in public health facilities but at highly subsidized rates (Ministry of Health, 2003).

Owing to continual economic pressure and deteriorating health infrastructure, falling standards of quality of care and budgetary constraints, and also as part of the World Bank's financed macro economic policy of Structural Adjustment Programme (SAP), a cost recovery programme for health services was implemented (World Bank, 2000). As part of the SAP

programme, in 1985 government increased user fees with the objective of raising additional revenue and improving efficiency through the prevention of so-called frivolous use of health care facilities. Thus for all medical conditions, except certain specified communicable diseases, users of services were made to pay for the cost of services at the point of receiving services. This payment mechanism was termed "cash and carry" (pay to get services).

Since then, the principal health sector financing mechanisms in Ghana have been Government budgetary allocation, donor contributions and user fees. Government funds 80% of the public health services bill through general taxation and donor funds, and 20% from user fees (Ministry of Health, 2002). User fees however have been found in the main to be regressive and create a financial barrier to health care access. Indeed, the fee system resulted in the first observed decline in utilization of health services in the country in the 1980s. Many facilities were reluctant to extend services to people who could not pay and the exemption system in Ghana did not work well (Waddington and Enyimayew, 1989 & 1990). The people affected most by user fee system were poor households who formed about 40% of the Ghanaian population (Ministry of Health, 2002).

It therefore became more imperative than ever to ease the burden of health spending by Ghanaians in general, and rural poor populations in particular, while at the same time increasing the contributions of those who have the means to pay. It is for this reason that in 1990, the people of Nkoranza District of the Brong –Ahafo Region, assisted by the Catholic Health Services, formed the first community-based health insurance Scheme to finance their health care costs. Since then many such schemes have been formed especially within the last decade.

The successes achieved by these health insurance schemes are tremendous. They have been able to improve financial access to health care especially for the poor rural dwellers in the informal sector that were hard hit by the effects of user fees, improved their health seeking behaviour and reduced "under the table charges" (Aikins, 2003). This has also increased utilization of health services, community solidarity and indirectly improved health status, as well as reduced the cost of health care to patients.

These achievements, which are in line with the vision and objectives of the Ministry of Health, motivated the Government of Ghana to extend the implementation of such schemes as part of the National Health Insurance Policy. The Ministry of Health has as its vision statement "to improve overall health status and reduce inequalities in health outcomes of people living in Ghana" (5 Year Programme of Work, 2002 -2006, : 8). One of the Ministry's strategies to achieve the above goal is to ensure that financing does not become a barrier to health services by extending prepayment schemes to replace the "cash and carry" system.

With the introduction of national mandatory CBHIS, 20% of total health expenditure that was previously being raised from user fees is to be raised through mandatory health insurance scheme. As of now, no country has attempted to meet such a high percentage (20%) of its health care financing needs through mandatory CBHI schemes. Ghana appears to be the first country treading on such shores.

Most studies that have been conducted on community financing schemes have dwelt on their effectiveness and have recommended government involvement in the schemes' operations.

However, these studies did not recommend the complete take-over by the government. As of now, there has not been an assessment of any community scheme highly regulated and controlled by government as the case will be with the one to be implemented in Ghana. Thus, the need to examine the total involvement of government in CBHIS in Ghana is paramount as it would highlight the challenges government is going to face and provide guidelines on how to overcome these challenges.

1.2 Rationale and Justification for the Study

The previous health insurance schemes (with the exception of about five of them), covered people from the same community or a few communities, or workers in a particular activity or profession, rather than an entire district. These schemes were autonomous; they had their own organizational or management structures and set their own contribution rates including the period of collecting the set rates, (taking cognizance of the local socio-economic situation) and based on local morbidity patterns, set their own benefit packages.

The problem that arises here is that all aspects of design for the mandatory health insurance scheme in Ghana are planned at the national level and sent down to the districts. The premiums set in the national health insurance schemes are less than what most of these schemes were paying previously (in relation to their benefits packages) whilst the benefit package in the National Scheme is more extensive than previously. This immediately implies budget deficits (or financing gaps)

Although the National Health Insurance Act (2003) makes provision for cross subsidization funds that will be used to cover some of these costs, the Ghanaian experience with government disbursements of funds, especially for reimbursements to districts under the exemption schemes has been plagued with problems.

There is a general concern that if the insurance funds are not well managed, and that the same inefficiencies seen with the exemptions fund occur under the health insurance system, it will affect both the insurance operations and health service provision in the country. However, if government involvement in the running of CBHIS is well conducted, it will bring some advantages such as the potential to achieve high population coverage rates (owing to recognition of the schemes and mandatory membership), which can also contribute to sustainability. Another advantage is that if government resources that will be invested in setting up costs are well used, they could also contribute to the sustainability of the schemes.

But set against these factors are other important considerations. The experience of CBHIS development in West, Central and East Africa since the early 1990s has demonstrated that the most important factors affecting scheme viability are: good design from the start, including adequate risk minimization features and good scheme management, including dedicated leaders and low administrative costs, social participation and ability to tap into existing community solidarity mechanisms (Atim, 2003; Mariam, 2003).

The average population of a district in Ghana is about one hundred thousand (100,000). Since the districts' residents are people of different backgrounds, different communities and

professions, the memberships of the mandatory schemes will be heterogeneous, instead of people with common characteristics as existed previously. Thus the design of the National Health Insurance raises crucial issues:

- If many people do not join the district schemes, which are supported with the state health budget, the new health insurance system cannot be said to improve access to health care and promote equity as envisaged

- It is not clearly stated how the National Health Insurance Fund and resources will be allocated between different competing interests. Considering the deficits estimated from the schemes' design and the unpleasant experiences of Ghanaians with government disbursements, (e.g. the exemption funds), there is a genuine fear that the bureaucratic financial disbursement system is likely to affect the operations and sustainability of the district schemes.

- There is also the fear that Ghana does not have the necessary technical and management capacity especially at the district levels to manage such big schemes with memberships of about 100,000 or more.

- It is not clear with the current design how much is going to be spent on service delivery and what percentage will go into administration. This is crucial as it may threaten the sustainability of the schemes.

Mandatory membership when one has to pay premiums at the community level is an innovation and is a "deviation" from the existing *voluntary* community based health insurance schemes concept.

Given the vision of the Ministry of Health to improve financial access to health care, ensure equity and to improve upon the health status of all Ghanaians through this financing mechanism, there is the need to assess the mechanism in light of how it may improve equity and financial access, consider its sustainability as well as compare the proposed schemes' prospects and challenges with the traditional voluntary ones.

1.3 The Aim of the Study

The aim of this study is to critically evaluate existing CBHIS and examine the possible impact of the mandatory district-wide schemes on the existing voluntary schemes in Ghana.

1.3.1 Objectives

The main objective of this research was to undertake an evaluation of three different health insurance schemes in Ghana with respect to efficiency, equity and sustainability. Specific objectives were:

1. To compare the performance of a voluntary Community-Based Health Insurance Scheme, a voluntary District-wide Scheme and a mandatory district-wide scheme in Ghana in achieving sustainability, equity and efficiency

2. To assess possible implications for the three schemes of changing to the National Health Insurance Scheme in Ghana

3. To make policy recommendations on voluntary and mandatory schemes

1.3.2 Organisation of the Dissertation

The report is divided into five chapters. Chapter one gives an introduction to the study. Chapter two consists of definitions of key concepts, the framework of analysis and a critical review of international experiences with health insurance schemes using the framework of analysis. It ends with the context in which the National health insurance scheme developed in Ghana. Chapter three entails a detailed description of methodology used in the study and the limitations of the study. In chapter four, results of the study and the possible implications for the existing schemes changing to NHI are discussed. Conclusions of the study and recommendations for policy and further research are presented in chapter five.

CHAPTER TWO

2.0 REVIEW OF LITERATURE

2.1 Introduction

This chapter is divided into three sections. Section 2.2 discusses the concept of insurance and health insurance. Two main types of health insurance; Social Health Insurance and Community-Based Health Insurance Schemes, are briefly described. Section 2.3 presents a framework for analysis of health insurance, while section 2.4 reviews global experiences in terms of the criteria raised in this framework. It ends with an overview of health insurance in Ghana.

2.2 Definitions and Types of Insurance

2.2.1 Insurance

Dorfman (1987:2) defines insurance as "a financial arrangement that redistributes the costs of unexpected losses." He states further that an "insurance arrangement involves the transfer of many different exposures to loss to one insurance pool, which combines the numerous exposures." The International Labour Organisation defines insurance as " the reduction or elimination of the uncertain risk of loss for the individual or household by combining a larger number of similarly exposed individuals or households who are included in a common fund that makes good the loss caused to any one member" (ILO, 1996:15). These definitions provide insights into certain basic principles of insurance.

One such principle is that people are willing to pay a premium in order to be compensated for financial or material losses from an event, which might happen. Another is that insurance relies on the fact that events that are risky and unpredictable for a given individual can be highly predictable for large numbers of people. For insurance to be feasible, therefore, risk must be pooled or spread widely among a large number of people.

2.2.2 Health insurance

Insurance generally involves pooling of risks so that the costs of losses likely to be incurred from the occurrence of such risks are shared among those involved in the pool. Risk sharing or risk-pooling strategies when applied to health do not concern ill health itself, but its financial impacts. For instance, in a health system that uses cost recovery methods like user charges, health care costs are assigned to individuals using the relevant services. In health insurance, these individually assigned charges can be shared or pooled using prepayment arrangements (Bennett et al., 1998).

Donaldson and Gerard (1993:28) describe health insurance as a mechanism "whereby an individual, or family, could make payments to some risk-pooling agency (usually an insurance company) that guarantees for some form of financial reimbursement in the event of illness leading to the insured person incurring health care expenses." As is the case with other forms of insurance, health insurance schemes work better and are viable with a large number of subscribers together with varied and different risk groups (Sikosana et al., 1997).

Health insurance has been identified as one way through which health care funding can be undertaken in order to reduce the financial burden on the poor. To Sikosana et al (1997), this is one of the objectives of health insurance. They list other objectives of health insurance as:

- to increase revenue,
- to reduce financial barriers to care (increase access to health care), and
- to improve efficiency in resource allocation and use.

Thus, health insurance implies protection against the risk that if expensive health care services are needed, the services will be available and of adequate quality, and the cost of using these services will not drive the family into poverty (Nitayarumphong & Mills, 1998). Another implication here is an issue of equity since health care becomes accessible to all at the time of need (at least to all insurance members).

2.2.3 Types of health insurance

There are different types of health insurance schemes. The two main defining criteria according to Mensah (1997) are:

i. Whether or not they are voluntary as opposed to compulsory,

ii. Whether or not the contribution rates are based on individuals' risk assessment.

These criteria thus put the various insurance schemes into two main categories; mandatory and voluntary.

Mandatory Health Insurance schemes such as Social Health Insurance (SHI), which are compulsory for specified individuals like formal sector employees and Voluntary Health insurance schemes which include:

- Private commercial
- Private not-for-profit
- Voluntary participation in publicly managed or social health insurance schemes
- Community pre-payment schemes

Private health insurance schemes (either commercial or not-for–profit), are based on voluntary contributions made by or on behalf of individuals to one of many competing insurance funds, and covered persons are entitled to a clearly specified package of benefits (Nitayarumphong and Mills, 1998). Contributions to commercial health insurance schemes are however risk-rated. Commercial health insurance schemes are not popular or so common in Africa and developing countries as on other continents, perhaps due to the fact that the majority of the population cannot afford actuarial premiums. They are mostly found in Europe and the United States of America. Brief descriptions are given below of Social (National) health insurance schemes and Community-based health insurance schemes, which are more relevant to this study.

2.2.4 Social Health Insurance Scheme

Social Health Insurance (SHI) is a system of financing health care through contributions to an insurance fund that operates within a tight framework of Government regulations (Kutzin 1997). It involves mandatory earnings–related contributions by employers and employees (Hoare and Mills, 1986). The contributions are either made to a centralised fund, or to smaller funds that are coordinated at a central point. Autonomous bodies (or government) manage Social Health Insurance schemes. They are often part of wider social security systems (Witter, 2002). SHI usually starts in most countries with people in the formal sector. However, the scheme could also be extended to non –formal sector workers (e.g. agricultural workers) (Bachmann 1994). Such an extension requires designing an effective means of collecting contributions since it is more complex and difficult to capture members of the informal sector especially in developing countries where information on this sector is not usually readily available. For example, membership of the Costa Rican SHI fund is compulsory for employees of private companies and government but is voluntary for the self-employed (Normand and Weber, 1994).

Another fundamental feature of SHI is social solidarity, which implies cross-subsidisation of lower income earners by the wealthy and of the ill by the healthy. Members are entitled to a specified benefits package and such benefits may be extended to a limited number of members' dependants. If SHI covers the entire population (universal coverage), the funding mechanism is often called a national health insurance (NHI).

Social Health Insurance has a long history in Europe and is one of the main revenue raising mechanisms for health financing in a number of countries. Typically, in European Social Health Insurance systems, both employees and employers pay into the funds and contributions for the unemployed from government or elsewhere are channeled through the sickness funds. Among developing countries, Latin American countries have the most extensive experience of SHI (McIntyre, 1997). However, in recent times, such schemes have been introduced in Asia, North Africa and the Middle East (Ron et al., 1990).

Some of the reasons for introducing SHI in sub-Saharan Africa according to DFID (2002) are: to organize the extensive out-of-pocket expenditure into something more equitable for poorer people, to simplify and improve efficiency of the many small schemes in the formal sector that have developed for middle and higher income groups and to improve efficiency of health care delivery through the creation of a strong purchasing function. Major country policy objectives for introducing SHI in some African countries are summarized in Table 2.1.

Table 2.1: Major Objectives for Introducing SHI in some African Countries

Policy Objective	Country
To formalize cost sharing in the informal sector	Tanzania
To increase revenue to the health sector	Tanzania, Nigeria, Kenya, South Africa, Uganda
To improve access to the health system	Tanzania, Nigeria, Kenya
To improve risk sharing	Malawi, Kenya
To improve equity in revenue collection	Malawi, Nigeria, Kenya, South Africa
To improve efficiency of revenue collection	Nigeria

Adapted from DFID 2002.

2.2.5 Community-Based Health Insurance Scheme

The term community-based health insurance or financing is a generic name or expression for a large variety of health financing arrangements. Community-Based Health Insurance Schemes (CBHIS) otherwise known as Mutual Health Organisations (MHOs) are "autonomous, not-for-profit organisations based on solidarity between members that are democratically accountable to them ...." (Atim, 2000:9). The objective of CBHIS is to improve members' access to good quality health care through risk sharing based on their own financial contributions.

This kind of health insurance tends to have a strong community focus and ownership in contrast to the workplace focus of social health insurance schemes. MHOs usually cover the non-formal sector i.e. people not employed in the official sector such as subsistence farmers, market women and petty traders.

Its main pillar is solidarity or social cohesion, the mutual relationship created by people likely to be affected by a common risk, who contribute to a common fund from which a member is relieved when he/she needs to meet health care costs. CBHIS/ MHOs use financing mechanisms based on a key health insurance principle, which is to enable people to pool their small contributions so that the most unfortunate ones among them have access to health care when they need it.

Names such as micro insurance, community health funds, mutual health organizations, rural health insurance, revolving drug funds and community involvement in user-fee management have been used at different places to refer to similar schemes. What is common to all these

programmes is the predominant role of "collective action in raising, pooling, allocating, purchasing and supervising the management of health -financing arrangements" (Dror & Preker, 2002).

They are voluntary organizations and are based on the tradition of self – help and social moblisation. They generally do not cover the full cost of health care. Some, however, provide comprehensive care at all levels of the health system. In some other cases, benefits are provided at a central facility, such as a district hospital, or at scattered lower level facilities, such as health centers and clinics.

The management of these schemes is varied. While some are managed by a central government organization together with local officials, others have been implemented solely by autonomous community solidarity groups or by non-governmental organizations in co-operation with the community.

2.3 Framework for Evaluating the Health Insurance Schemes

The study employed a framework developed by the World Health Organisation (WHO, 1995). The framework is introduced here so that it can be used as the basis for critically reviewing the literature on CBHIS and SHI. The WHO's framework offers the means of assessing the critical areas of health care system such as sustainability, efficiency and equity.

2.3.1 Sustainability

Sustainability is assessed jointly with level of funding since these are inextricably related. Hence sustainability is assessed from the following perspectives:

Financial sustainability **(sometimes referred to as level of funding)** in this context refers to the capacity of health insurance schemes to provide a sufficient level of finance to enable them to function effectively over time without a substantial injection of external support. This implies that the mix of funding sources provides stability in finance over time and that there are adequate mechanisms to contain the growth of costs within the available funds (WHO, 1995).

Acceptability of health insurance on the part of providers relates to their preparedness and readiness to develop and implement measures to support the programme effectively. Since insurance schemes in themselves do not offer health services, they depend much on the availability and quality of health services. Hence, health service providers will need to cooperate and collaborate well with insurance managers for any scheme's successful operation. This is crucial to the viability of the health insurance schemes.

Acceptability of Health Insurance by members: This is determined by socio-economic and political factors, as well as the quality of health services available. When these factors are favourable, they encourage prospective members to join and keep their membership in the health insurance scheme. An aspect such as expanded opportunities for choice of health care providers by insurance members is crucial to their satisfaction.

2.3.2 Efficiency

Administrative efficiency is considered in this study. ***Administrative efficiency*** refers to how the operations of the scheme are managed in order to keep costs at the minimum whilst achieving the best results (Kutzin, 2001). The study thus considered activities carried out by schemes to keep costs low whilst achieving their objectives.

2.3.3 Equity

Equity has several meanings and implications. For the purpose of this study, equity shall refer to two main aspects: equity in finance and equity in health care delivery.

Equity in finance is considered to be a function of the ability to pay, and can be interpreted as those with different abilities to pay should make appropriately different contributions, i.e. vertical equity, and that persons or families of the same ability to pay make the same contribution, i.e. horizontal equity (Wagstaff and Van Doorslaer, 1993; Kutzin, 2001). Thus equity in finance was evaluated on the basis of progressivity or regressivity of the financing source. The study considered an individual's ability to pay as against actual direct and indirect payment made for health insurance. This involved an examination of the ways in which contributions were made to determine whether they were progressive or regressive relative to individual or household ability to pay. Inequity exists where the contribution system is not progressive, thus low-income individuals or households pay more of their income than high-income people. However, due to unavailability of much data (on individual and household income levels), the study did not evaluate equity in finance in detail.

Equity in health service delivery was also evaluated in terms of vertical and horizontal equity. Evaluation of vertical equity of health services provision requires that persons with unequal need be treated in an appropriate dissimilar way while horizontal equity requires that persons with equal need be treated equally (Wagstaff and Van Doorslaer, 1993).

In practice however, equity in health service provision can be evaluated on a geographic and socio-economic basis. Equity on a geographic basis implies that people with equal capacity to benefit from health care should receive equal treatment, despite personal characteristics that are not related to capacity to benefit, such as residence (Wagstaff and Van Doorslaer, 1993).

Equity on a socio-economic basis implies that citizens with different socio-economic status when ill should receive the same treatment regardless of their influence in society and ability to pay (Wagstaff and Van Doorslaer, 1993).

Thus the study examined whether service delivery and utilization reflected the need for those services rather than the income level or other factors of patients.

2.4 Critical Review of International Experience with Health Insurance

2.4.1 Community-Based Health Insurance

The sustainability and potential of Community-Based Health Insurance Schemes in improving efficiency and equity in the health sector are discussed in the following section.

Sustainability

Sustainability of CBHIs is reviewed in terms of members' and health providers' acceptability of the mechanism as well as the mechanism's ability to raise sufficient funds to finance its activities.

Members Acceptability

A study by Arhin (1995) found that in Ghana, Burundi and Zaire, more than 90% of households in rural areas were either participating in a prepaid scheme or prepared to participate in such a scheme as it ensures access to good quality health services. The contingent valuation studies that she conducted also indicated that households in rural areas are risk averse with respect to health care costs, and that there is a significant demand for health insurance schemes. The recent development and formation of community-Based health financing schemes in Kenya, Tanzania, Uganda, Ghana and Democratic Republic of Congo (Atim, 1997; Musau, 1999) confirm that the CBHI is an acceptable form of health financing to the people in the sub region. What has given this impetus is the considerable expansion of user charges in public health services as a means of financing health care (Musau, 1999), which has made it too difficult especially for most of the rural poor populations to gain access to health care.

Thus, one pre-requisite for a Community-Based Health Insurance scheme is the existence of a felt need for a more convenient means for paying for health care costs to replace an existing less desired one (e.g. a high user fee at public health facilities). The reason for relatively high coverage of Bwamanda Hospital Insurance Plan in the Democratic Republic of Congo, for example, was attributed to high inpatient fees (Shaw and Griffin 1995). They suggest that low

fees at health facilities undermine this type of scheme as exemplified in the CAM card scheme in the same country.

Another success factor for CBHIs is the proximity of the health facility that provides services covered by the scheme and the perceived quality of the health care services of such provider (Arhin 1995; Shepard et al 1996). For example, the Bwamanda hospital was regarded as having a high quality of care, but that was not so in the CAM card scheme (Shaw and Griffin 1995). Issues such as drug shortages at health facilities have been cited as one major reason for not participating in schemes (Arhin (1994).

Prospective members' ability to pay determines how CBHI will be acceptable and sustained in a particular area. People's ability to pay in the developing countries is limited and besides it is vulnerable to seasonality in agricultural production and subject to major fluctuations (Abel-Smith and Dua, 1988). In such circumstances, most people would not like to pre-pay. They would rather postpone payment for health services until they feel they really need the services (usually, in times of ill-health).

People's willingness to pay is in part dependent on who receives the benefits from the specific service provided. If they benefit the community more than the individual, there may be some reluctance to participate in such a scheme.

Social factors may contribute to enrolment into pre-payment or CBHIs. For example, Arhin (1995) attributes the near universal coverage of the Abota scheme to "solidarity" (social

cohesion). Abel-Smith and Dua (1988) found a similar factor for the success in some Asian scheme where there was "a strong sense of community".

The role of community leaders in persuading members to join and remain in the schemes has been important in increasing coverage (Wibulpolprasert 1991; Eklund and Stavem 1996). Confidence in the initiators and in the scheme also plays an important role in the successful implementation of CBHIs. Where the target population has experienced failures in establishing similar schemes or where initiators have been associated with similar unsuccessful schemes, enrollment rates tend to be low (Atim 1998).

One of the possible causes of the generally low rate of penetration of target groups by Community-based Insurance Schemes in sub-Saharan Africa is inadequate market research. Community-based health insurance Schemes rarely carry out user surveys to find out what beneficiaries would like before the schemes are implemented. Thus benefits packages are frequently designed without prior consultation and then "sold" or explained to the target groups. The success of one scheme in Cameroon has been attributed to the active participation of members in premium setting and benefits, strong ethnic base and the incorporation of other benefits valued by the community, including financial relief in the event of death (Atim, 1999).

Provider Acceptability

Implementation of insurance schemes generally requires providers to institute certain measures to be able to conform to the new ways of doing "business" with clients, for example, billing procedures, payment methods, service quality issues etc. Involving health service providers

from the outset of setting up a scheme has led to acceptability of the scheme on the part of providers (Atim, 2000).

Shepard and others (1990) have recommended that decentralization especially with providers' involvement can be important within Community-based Health Insurance Schemes. For example, in Bokoro in the Democratic Republic of Congo, each health center participating in the community health insurance scheme, exercised some control over its profits as a 25 percent share was allocated for its immediate use. They also noted that committed and motivated administrators contributed to the success of the Bwamanda system. While nurses welcomed the commission of 3 percent of the premium income they collected, they also seemed to appreciate being part of a well-functioning system that allowed them to use the locally-available resources to provide health care to their population.

Financial sustainability

The affordability, frequency and timing of scheme contributions are crucial determinants of enrolment into CBHIs, which eventually determine the total funds to be raised through this mechanism (Abel-Smith and Dua 1988; Arhin 1995; Shepard et al 1996).

Abel-Smith and Dua (1988) basing their argument on experiences in a scheme in Indonesia, commented that in many rural areas, agricultural loans are of a much higher priority and rural households are too poor to consider prepayment schemes. However, being aware of this and other problems related to contributions, most schemes adopt strategies to mitigate such problems. For example, contributions are collected at periods when cash income is relatively

high. Usually, rural pre-paid schemes contributions are timed to coincide with harvest; there is therefore greater ability to pay scheme contributions (McIntyre, 1997). The timing also makes it more convenient to contributors.

Presently, the limited literature available on CBHIS's potential to raise revenue gives mixed evidence. For example, only 23 percent of the total drug costs at health posts in Guinea-Bissau were covered through the village Abota pre-payment scheme (Eklund and Stavem, 1996). In the CAM card scheme in Burundi, Arhin (1994) found a higher cost recovery level of 34 percent out of patient drugs costs coming from the scheme. Shepard et al (1996) found that the income from the Bwamanda scheme in the Democratic Republic of Congo exceeded the total cost of services and administration costs of the scheme. These costs however, did not include salaries of expatriate doctors. Perhaps the scheme would have found it impossible to fund all costs, including salaries of expatriate doctors. Thus, what appears to be a favourable balance was so because not all operational costs were considered.

Efficiency

Efficiency is reviewed mainly in terms of administrative efficiency. Therefore areas of administrative structures and practices that minimize costs or lead to cost escalation are reviewed.

Administrative Efficiency

Experience shows that insisting on family or group instead of individual membership is effective in reducing adverse selection (Shepard et al 1996). Such a strategy also leads to

reaching many members at a time and makes use of economies of scale. The strategy is enhanced by carrying out enrolment at one time during the year, mostly at the time of harvest, at which time most people can afford to contribute (Arhin 1995; Shepard et al 1996; McIntyre, 1997).

In contrast, a scheme that permits enrollment at any time during the year has been found to have significant adverse selection. This is exemplified in the CAM card scheme in Democratic Republic of Congo (Arhin 1994).

One administrative weakness of CBHIS is the lack of managerial competence (Huber et al 2002). CBHIs usually rely on the benevolence of voluntary workers who lack the technical skills to manage effectively and efficiently. Shepard et al (1990) suggest administrative efficiency could be enhanced if the schemes are managed by health providers. According to them, this direct insurance system offers important advantages in efficiency and control over indirect systems, in which the insurer pays some independent provider for care. In a provider-based system, many of the inherent conflicts between the insurer and the provider are avoided. Again, the schemes make use of the expertise of providers.

However, the direct system may lead to supplier-induced demand since such system does not encourage checks and balances. This is because the health provider plays the roles of collection, management and disbursement of premiums.

Owing to this, sometimes Community- Based Health Insurance Schemes are managed by either members of the communities or jointly by health providers and the communities. This encourages trust in the schemes since they are being run by their "own people." Such arrangement also reduces administrative costs since usually community members do it on a voluntary basis.

One of the principal drawbacks of voluntary community -based health insurance schemes is the high utilisation of services by the insured. Apart from the reduction in financial barriers to access, other factors like adverse selection, moral hazard and fraud are possible explanations of the situation (Somkang et al., 1994; Sikosana et al., 1997; Criel, 1998)). If this pattern continues, it threatens the sustainability of the schemes.

However, another explanation could also be the fact that members seek care earlier than non-members, in which case they may require fewer drugs and hence, lower cost of treatment (Schneider et al, 2000; Schneider and Diop, 2000). Such a situation would in the long run improve efficiency and effectiveness.

Equity

Equity of Financing

Equity of finance is reviewed in terms of progressivity or otherwise of the contribution systems while equity of service delivery is reviewed in term of whether members with equal needs are treated equally.

Most community-based health insurance schemes have a flat rate contribution per member or per household (Arhin, 1995; Eklund and Stavem, 1996). In such a system, the poorer members tend to contribute a higher percentage of their income, which is inequitable. However, as the poor tend to have a greater incidence of morbidity (Abel-Smith and Dua, 1988), a flat pre-payment is not as regressive as charging for every service used, which is the case with user fees.

Usually, in community financing schemes, fees paid by members when seeking care are reduced to zero or an affordable co-payment. By removing the financial barriers at the time of need, community financing does provide poor people with financial protection by improving access to care and reducing out-of-pocket spending which is more regressive.

However, some argue that community financing may exclude the poorest section of the population due to their inability to pay premiums (Preker et al, 2002). Hence, they argue that these prepayment plans have failed to reduce the financial barriers to access, though they probably might have reduced the number of people affected by these problems (Kutzin, 1995). Indeed, the literature available suggests these schemes are most successful among the rural "middle class" (Atim et al; 2001). But in many low-income countries, rural populations overall are poor and the rural "middle class" is certainly part of the majority poor.

Moreover, in some schemes, the poor have been altogether exempted from making payments. For example, Mallur Milk Cooperatives (India) exempted from contributions landless labourers and people of certain economically and socially backward castes (Abel-Smith & Dua, 1988).

Payment or contribution in kind rather than in cash has also been used to enroll the poor. In the paddy growing areas of South Korea and Indonesia, contributions for health coverage are collected in the form of rice grown by the people. In one Indonesian village, households manufacture tiles to pay the monthly subscription for health insurance (Abel-Smith & Dua, 1988).

Some schemes, such as Gonoshastya Kendra in Bangladesh and MUGEF-CI in Cote d'Ivoire have attempted to take account of vertical equity consideration by using a sliding scale according to income for contributions (Desmet, Chowdhury et al, 1999). This is an indication that some schemes have recognized the problem of the very poor in their communities and are devising means of getting them to join the schemes which also improves equity.

The problem is that overcoming adverse selection tends to militate against sliding fees on the basis that those with high incomes tend to have less need of care and the scheme would risk losing the low risk from the pool. This is because the high-income earners have the ability to contribute high rates but may not be happy paying such rates if they derive few benefits and therefore would not join the schemes.

In the context of schemes based on indigenous institutions, it may be that members are more willing to cross subsidise. This is less likely in schemes imposed by external agencies where social alliances are weaker. It is probably inescapable that, in order to enroll a large proportion of the very poor, some form of external subsidy is required. One way to do this is through the provision of government purchased free cards as occurred in Thailand (Ensor, 2001).

Equity of Service Delivery

Equity in health service delivery presumes that the service is financially and geographically accessible in similar quality to all and that all will get the service in times of need. It is therefore inequitable where free (i.e. entirely tax funded) health services are offered to those in urban areas (Stinson 1984; Abel-Smith and Dua 1988) whilst the rural poor have to devise extra means (from pre-payment schemes) to access the service.

Therefore critiques of pre-payment and other community financing schemes maintain that the systems place the burden of financing health care on the poorer rural communities who have the least ability to afford (Stinson 1984; Hoare & Mills 1986).

Proponents of CBHIS however, argue that if the services offered at those rural areas are poor and the rural dwellers are already traveling to urban areas for better services or receiving services from private providers, they will be incurring high costs. Therefore if the community-financing scheme is able to generate resources to improve the quality of public health services in rural areas, the schemes may reduce the amount that individuals have to pay for health care (Shaw and Griffin, 1995). But, the fact still remains that the poor are contributing more to get similar or sometimes even less quality of service than what their counterparts in urban areas get without extra financial contributions.

Equity may be improved by forming a network of schemes in both rural and urban areas. But while a network permits the creation of a large risk pool or enables a reinsurance function, the reallocation of funds from rich to poor schemes is hampered by the voluntary nature of

association and membership. Even in China, where commune insurance was more or less compulsory until the early 1980s, evidence suggests large differences in wealth of schemes. As a consequence, it is not usually feasible to expect large reallocations between schemes. Even if this succeeds, reallocation of funds merely makes funds equally available to purchase services. Thus there will still be the need to improve health services offered in rural areas to equal standards as they exist in urban areas in order to ensure fairness. In fact, equity between and within community schemes is a major issue.

Summary

In summary, CBHI schemes are able to improve access to health service, at least to a greater extent than user fees. They can however be sustainable only when community members accept the concept and join the scheme. Issues such as ability to raise revenue and manage it efficiently in the midst of poor populations without skilled human resources are challenges to the schemes. Another challenge is the need to find ways of enrolling the very poor without losing the relatively rich and low risk members.

2.4.2 Experience with Mandatory Health Insurance Schemes

The potential of SHI in achieving sustainability, improving efficiency and equity in the health sector are discussed in the following sections.

Sustainability

Members Acceptability

As indicated earlier, insurance generally thrives better with large numbers or high coverage. The need to embark on education and marketing to the target group before introducing SHI is paramount to achieve high coverage. The Scheme in Tanzania faced initial resistance and opposition owing to the fact that many people did not understand or even know of it until deductions started reflecting on their pay slips. In Kenya for example, vigorous marketing was considered a vital component in encouraging the informal sector to participate in the country's Social Health Insurance. Members' acceptability of the scheme is enhanced if they also receive an acceptable quality of health care (Bachmann 1994; Normand and Weber 1994; Kutzin, 1996).

A major advantage of SHI is the fact that it is mostly a payroll deduction. It is therefore more likely to win popular support than other mechanisms such as increases in general taxes (Broomberg and De Beer, 1990).

Studies have shown that the mode of contribution to mandatory health insurance schemes is as important a factor as it is in voluntary schemes. For example, at Boboye in Niger, the whole population was included in their SHI by means of a mandatory poll tax. Because of that, membership was quite high. But Bennett and others (1997) found that where "compulsory" membership meant paying the premium on attendance at a health centre, coverage levels tended to be much lower- for instance, they found 33% at Molodo in Mali and 25% coverage for one scheme in India.

Incrementally adapting the benefit package in accordance with changing needs, values and economic circumstances contribute to the acceptability and hence, sustainability of a social health insurance system (Barnighausen and Sauerborn, 2002). Barnighausen and Sauerborn (2002), advise countries embarking on universal health insurance system to start with packages limited enough to be financially viable, yet with services that are both relevant to needs as well as attractive to enrollees.

Evidence shows that all countries that have universal coverage started by covering subgroups of the population, usually those in formal sector employment, and extended coverage gradually (Normand and Weber, 1994; Ritter, 1983).

The Korean experience shows it is possible to achieve universal coverage using a stepwise approach and in a relatively short period. Universal compulsory coverage was achieved 26 years after the establishment of the first voluntary fund through schemes covering the rural and the urban self-employed (Moon, 1998; Anderson, 1998).

The potential of SHI to generate revenue depends on the size of formal sector employment, the degree to which workers in the informal sector can be incorporated, and the income levels of the economically active population.

Enrollment in insurance schemes either voluntary or mandatory is dependent on employment levels. The schemes that became compulsory as employment levels rose, as in Japan, Korea and Taiwan, had close to full coverage. Indeed, one of the most important lessons learnt is that all

the developed countries achieved successful implementation of mandatory health insurance only when they were at relatively high levels of income, largely urbanized, and had large wage sector relative to informal sectors.

As formal sector employment and or income levels increase, SHI becomes more stable and sustainable health care financing mechanism.

One disadvantage of SHI however, is that it may lead to an increase in employers' cost of labour since employers have to make contributions for their employees. This may exacerbate unemployment or reduction in wages and salaries. Otherwise, employers may also shift this cost to consumers by increasing prices.

SHI can be an efficient source of health care finance if there are sufficiently large risks pools and adequate mechanisms for risk equalization when there are smaller funds acting as intermediaries (Kutzin, 1996). Since SHI is mandatory, it reduces adverse selection and leads to the creation of larger risk pools than can be achieved in voluntary private insurance schemes (Ron et al., 1990).

Experience has shown that near universal coverage also requires substantial state involvement. Interventions to achieve this include regulation of funds and their redistribution to integrated systems (Ensor, 2001). Again, experience shows that those countries legislating for universality had already achieved coverage of the overwhelming majority of their population.

Provider Acceptability

Weak regulation and inability to create appropriate incentives in health institutions to make them behave in a more efficient way will make SHI unsustainable (DFID, 2002). Also the quality of service members' of the scheme receive encourages them to continue to patronize SHI.

Sometimes health care providers turn to have bad debts from unpaid bills. In such circumstances, health care providers are willing to accept SHI as it turns to reduce their bad debts.

Financial sustainability

Experiences from Croatia, Macedonia, Bosnia and Herzegovina show that SHI have been more successful at raising revenue for health in countries with stronger economies (DFID, 2002). However, the revenue raised from the mechanism is not enough to support the whole health system and other mechanisms are still required.

As indicated earlier, it takes a long time for SHI schemes to evolve, hence taxation remains important even in countries that are officially financed by social insurance. Few European countries rely on SHI to entirely finance their health systems. At most SHI never accounts for more than 75 percent of the total health care expenditure (DFID, 2002)

Efficiency

Administrative efficiency

SHI tends to have relatively lower administrative cost, as compared to voluntary private insurance schemes, which increases the net revenue generating potential. The level of administration costs is influenced by a range of factors such as "the number of SHI members (given the economies of scale in insurance administration), whether there is a single insurance fund or a number of smaller intermediaries, the extent of computerisation of membership and provider information" (McIntyre, 1997).

An aspect that affects SHI costs is the payment mechanism adopted to reimburse health care providers of the insurance scheme. Fee –for – service (FFS) for example, as practiced in Germany in the 1960s led to cost escalation (Rosewitz & Webber, 1990). There is ample evidence from countries like South Africa, South Korea and China that fee-for-service remuneration leads to an expansion in overall service volume and rising health care expenditures because of supplier- induced demand (Kutzin 1997; Moon, 1998).

Another problem is the threat of moral hazard in mandatory insurance. A number of strategies have been adopted in different countries to contain costs in SHI. Korea and Taiwan used out of pocket cost- sharing in the form of annual deductibles, co-payments and strict price controls to try to control moral hazard, but these mechanisms did not seem to solve the problem (Gertler, 1998).

The development of good management practice as well as of a trust relationship between administrators and beneficiaries are crucial elements for the long-term survival of schemes (Feng, Tang, Bloom, Segall, & Gu, 1995; Liu, Hsiao, Li, & Ren, 1995). Self-governance may serve both as a source of stability and sustainability as well as a means of decentralising and democratizing the health care system.

Small, informal, voluntary health insurance schemes may serve as learning models for fund administration and solidarity. The creation of legal frameworks, formalizing these schemes and eventually making them compulsory can be an important step towards establishing universal social health insurance (Barnighausen and Sauerborn, 2002). In the OECD countries, indigenous mechanisms for risk pooling existed in all countries and attempts to extend coverage built on these systems. This is again exemplified in the integration of the friendly societies into the administration of national insurance after the First World War in Britain and incorporation of the mutuelles in France (Ensor, 2001). Such a design makes use of existing structure and avoids establishment of new ones, which will increase costs.

Splitting service provision and the purchasing of health function is known to improve efficiency. However, in countries where highly centralised control has been the norm, splitting through a division in organizational responsibilities with a country's Ministry of Health can prove difficult (Ensor, 2001).

Equity

Equity in financing

Equity in health insurance financing depends on the progressivity or otherwise of contribution mechanism used. If a SHI has a flat rate contribution, irrespective of income levels, it is said to be the most regressive.

In some SHI schemes, contributions are a fixed proportion of salaries. Others have gone further to progressively structure income–related employer and employee contributions (Normand and Weber 1994). They are either set as a proportion of wages (e.g. 2 percent for low income earners increasing to 6 percent for the highest income earners) or a fixed amount for specified wage categories. These are more progressive methods and improve equity in financing.

Governments often heavily subsidize schemes for civil servants. This, therefore, represents a cross-subsidy from poorer-tax payers to a relatively prosperous elite. Concerns of this nature have arisen in Thailand.

Also where private insurance schemes are run alongside public schemes, it could lead to "cream skimming" and erode cross-subsidisation. For example, in Chile, while health insurance is mandatory, people have the option of either joining the public health insurance, which is income-rated, or private insurance, which is risk-rated (Sapelli, 2004). The relatively lower income and relatively higher risk people opt for public health insurance (cheaper but less quality health service) whilst the relatively higher income and people with low risk join private health insurance for better quality health services. The system thus encourages inequity.

Perhaps equity could be improved if all contributions were risk-rated and the public subsidizes those whose premiums exceed certain limits (e.g. as in Netherlands) (Sapelli, 2004). Alternatively, SHI could disallow people from opting-out and joining private schemes.

Experience shows the need for risk equalization in the face of multiple funds. This increases vertical equity and enhances administrative efficiency.

Equity in delivery

The design of a mandatory health insurance scheme has equity implications. Experience from Korea indicates that high co-payments will reduce equity in service utilisation within the insured group (Yang, 1991).

In order to be sustainable, proponents of SHI advise using incremental approach to SHI /NHI. But an incremental approach may, in fact, lead to more inequity. For one, revenues in a SHI system traditionally flow from formal wages and salaries. As a result, the population groups likely to be covered last are the most vulnerable segments of the society: those without income (the unemployed, retirees, and family dependants) or those with income that are variable and hard to assess (urban informal workers and farmers). Thus, a stepwise passage to universality may result in decreased access to health care for the uninsured in the interim periods of partial coverage (which may be quite long if political will is lacking or socio-economic conditions are unfavourable).

In view of this, critics of the system argue that SHI creates a two-tier health system with differentiation in access to health services on the basis of contribution status (Ensor 1995; Kutzin 1995). Those who are covered by the SHI get better quantity and quality of health care (Hoare and Mills 1986; Bachmann 1994). The problem is worsened if SHI members use private health service providers. It is likely that health personnel in the public sector would be attracted to the private sector leading to understaffing in the public sector, hence, poor quality of service to the rest of the population. To reduce this effect, Abel-Smith (1991: 197) has recommended sufficient trained health personnel as a prerequisite for SHI.

Another problem with the incremental approach is that current members of social health insurance schemes may be opposed to including other groups in the insurance cover. This is so because those yet without insurance are likely to be low income and high risk people. Hence, those who are currently insured would likely pay part of the price of including these groups in the form of higher insurance contributions (Barnighausen and Sauerborn, 2002).

However, SHI has the potential in promoting equity in service delivery. It may release scarce resources from the public sector, which can be used to provide improved health services for the non-insured population (Shaw and Griffin 1995). Thus, despite the disparities, the non-insured will still receive better and more services than when there is no SHI.

Also if SHI is introduced for all formal sector employees, it can improve equity in the receipt of health care within the insured group (Griffin and Shaw 1996; Kutzin 1996). This happens

because all categories of income earners (low and high income earners) would be entitled to the same benefit package.

Bachmann (1994) argues that there may be fewer health services located in low income residential areas which can increase the indirect costs of obtaining health care and therefore deter low income earners from using as much health care as high income earners. However, it is likely these low-income earners would use more service than previously, as SHI usually reduces the direct costs of care.

The most equitable approach may be National Health Insurance (NHI) (universal coverage), but even then effective coverage (i.e. receipt of care) is likely to be lower for the poor and people who live in underserved geographic areas (especially rural areas) (Bachmann, 1994). In developing countries, universal coverage is also unlikely to be economically feasible owing to high unemployment levels.

Summary

In summary, both voluntary and mandatory health insurance schemes have some common pre-requites. These include social cohesion, economic activity and income levels, good quality health care and good design to minimize risks that lead to inefficiencies. Authorities' involvement (either political or traditional), and provisions to protect the poor and vulnerable are enabling factors to enhance sustainability and promote equity.

Universal coverage however, requires much more state involvement and legislation. It also needs to be implemented cautiously, perhaps on a gradual basis taking advantage of existing community-based health insurance schemes. Thus, CBHIS may form the stepping stone for a Social (National) Health Insurance Scheme.

The need for risk equalization funds comes out strongly but it goes with inherent problems of determining equitable benefits package in the face of different levels of contribution rates. This happens especially when mandatory minimum benefit package is not determined. In such a situation different schemes will set different benefit packages and contribution rates. It therefore becomes a problem when attempting to bring them together to form one big pool and determine a common benefit package.

There is not much experience of mandatory health insurance in developing countries especially in Africa and there is much to learn from the experiences of developed countries.

2.5 Kutzin's Framework for Country-Level Analysis of Health Care Financing Arrangements

Having reviewed the international experience of CBHIS and SHI, it is important to consider the existing health insurance context in Ghana. A second analytic framework is used for this purpose, which is outlined in this session.

Kutzin (2001) suggests that health-financing mechanisms need to reflect the objectives of health systems. According to him, health insurance especially must provide access to health

care with financial risk protection, which he termed the "function of health insurance." Seven main functions in health financing arrangements identified by Kutzin (2001) are considered. These include: sources of funding, contribution mechanisms, pooling of funds, allocation mechanisms, type of organisation, purchasing of health services and benefit package. These are briefly explained below.

Sources of funding: the main sources of funds for health care are individuals and corporate entities (through direct and indirect taxes) and external donors. Government is the most important source of funds and may increase the level of health expenditure by either reallocating funds for other sectors to the health sector or increase her expenditure generally. Usually, it is not easy to re-allocate funds from other sectors and it is equally difficult, especially in low-income countries, for governments to increase general expenditure (see for example, Kutzin 2000). Likewise, an increase in tax rates has the potential to reduce employment levels and hence lead to an actual loss of tax revenue. Thus, governments have to be cautious in their desire to increase funding for health care.

Contribution mechanism: These are usually direct and indirect taxes, payroll taxes, voluntary prepaid contributions, grants and loans. These are influenced by the level of economic development such as levels of employment and income (Kutzin, 2001).

Pooling of funds: this refers to mobilization of funds for health from various sources into a common "pot". Resources in this single fund (pool) will be allocated to the relevant agencies to cater for health care costs. It is an "accumulation of prepaid health care revenues on behalf of a

population" (Kutzin, 2001: 176). Pooling of funds is a means leading to equitable and efficient distribution of health resources. If each region or district is left on its own, more endowed areas may accumulate more funds and have access to better health care whilst poorly resourced areas are denied such facilities.

Allocation Mechanisms: this refers to distributing health funds from central (higher) level to lower levels (regional/provincial, districts) for the purchase or provision of health services for their respective populations. Allocation may be done following historical data (expenditure patterns) or be based on a more sophisticated needs based criteria to cater for differences in health needs of the relevant populations. The latter is said to be more efficient and equitable as it reflects the health needs of the people.

Type of Organisation: this relates to ownership of the health insurance scheme; whether it is government, private for-profit or private-not for profit (NGO). This has implications for how the organisation is run. Most private for profit organisations tend to adopt means of avoiding high risk people. In such a situation, government may need to regulate schemes' operations to ensure equity (Kutzin, 2001).

Purchasing of health services involves actual "buying" of health services for the population. Thus, arranging and paying for health service costs for the people in a locality or in a health insurance scheme. The purchasing function if not well conducted may encourage supplier-induced demand; however "active purchasing" could be used to regulate provider behaviour and enhance efficiency.

Benefit package is the set of health services that an insurance member can access. This is the main motivation for most people to join health insurance schemes. The benefit package can therefore be designed to attract prospective insurance members by including most needed services. However, control measures need to be put in place to avoid excessive use of services.

2.6 Context in which the National Health Insurance Scheme Developed in Ghana

Owing to the problems associated with the "cash and carry" (user fees) system of financing health care in Ghana, the New Patriotic Party (NPP) sought to abolish the user fees system when the Party came into power in 2000 and to replace it with a National Health Insurance Scheme. After a series of consultations and studies, the government realized it would not be feasible to establish a single National Health Insurance fund (Ministry of Health, 2002). This was because about 70% of Ghanaians are in the non-formal sector of the economy and as mentioned earlier, at least 40% of the Ghanaian population lives below the poverty line and may not be able to afford high premiums (Ghana Living Standards, 2000). This meant that traditional mechanisms for organizing communal contributions needed to be examined and factored into the design of the health insurance scheme. A Ministerial Task Team on Health Care Financing was established in March 2002 to conduct further studies and recommend an appropriate scheme for Ghana. The Team's proposals were submitted to the Parliament of Ghana and in 2003, an Act of Parliament was passed to establish and regulate health insurance operations in the country (Act 650, 2003).

The Vision, Goal and Objectives of the National Health Insurance Scheme in Ghana

The Vision

The ultimate vision is "to assure equitable universal access for all residents of Ghana to an acceptable quality of a package of essential health services without out-of-pocket payment being required at the point of service use" (Ministry of Health, 2002, p7). It is hoped this system would protect everyone from the problems that are associated with having to find money at the time of illness before necessary services can be provided.

The Goal

The goal of the National Health Insurance is, "Health Insurance will replace out of pocket payment for a certain minimum benefit package at point of service use over time" (Ministry of Health, 2002: 7). The replacement process will however be a gradual one.

Objectives

The long term policy objective is that every resident of Ghana shall belong to a health insurance scheme that adequately covers him or her against "cash and carry" in order to obtain access to a defined package of acceptable quality needed health services. There are medium and short-term objectives indicating a gradual percentage achievement till the long-term objective of universal coverage is achieved.

Types of Health Insurance Schemes in Ghana

The National Health Insurance is modeled around the existing Community-Based Health Insurance Schemes although provisions have been made to accommodate other forms of health insurance schemes.

According to Act 650 (GOG, 2003), the following types of health insurance schemes may be established and operated in the country:

a) district mutual (community-based) health insurance schemes: this type of scheme operates in the whole district and membership is open to all residents of that district

b) private commercial health insurance scheme: this is a private for-profit company and may not be restricted to a particular location within the country. Membership to this scheme is also open to all Ghanaian residents.

c) private mutual (community-based) health insurance schemes: This could be any group of people coming together to form their own mutual health insurance scheme. It could be a church, an association, a club etc. and usually membership is open to only members of the organization concerned.

However, for any insurance scheme to operate in Ghana, it needs to be registered either as a company limited by guarantee (in the case of district mutual or private mutual) or in the case of private commercial health insurance scheme, as a limited liability company.

The government of Ghana will support directly the District Mutual Health Insurance Schemes. In effect, private mutual health insurance schemes and private commercial ones may be

established but will not enjoy any subsidies from government. It is however, compulsory for anyone living in Ghana to belong to a health insurance scheme (Act 650, 2003).

Thus by that position, Community-Based or District Health Insurance Schemes have become the main focus of government health insurance. Indirectly, Ghanaians are compelled to join the District Health Insurance scheme, in that, opting to join any other scheme implies losing government's resources, which are to be financed by Ghanaians' own taxes and contribution as will be explained in due course.

Administrative Structure of District Health Insurance Schemes in Ghana

In Ghana, health insurance schemes in general are to be regulated by the National Health Insurance Council (NHIC), which has its headquarters in the national capital, Accra. Regional and District offices of the NHIC are yet to be established. According to Act 650 (2003: 6), the NHIC has "the overall function of formulating and providing policy guidance and overseeing the implementation of the National Health Insurance Programme." The Council will specifically manage the National Health Insurance Fund (NHIF), including "collection, deposit, investment, administration and disbursement and oversee the operations of health insurance schemes including licensing and regulating schemes as well as being responsible for the accreditation of providers".

At the district level, the highest authority of the insurance scheme is the Health insurance Assembly which is made up of all members of the scheme in good standing. The scheme is administered through a governing body (Board of Trustees) and by a Scheme Manager. The

governing body has responsibility for the direction of the policies of the scheme and appointment of employees. Members of the governing body are between seven and fifteen persons and elected by a general assembly. The chairman of the governing body is to be elected from among the membership to the body. The scheme manager is either an individual, corporate body or a committee and is responsible for the day-to-day administration of the scheme.

The staff complement is regulated and determined by Act 650 (2003) and subject to the discretion of the NHIC. The basic complements of staff are:

- The Health Insurance Scheme Administrator
- Publicity and Marketing Manager
- Claims Manager
- Accountant
- Data Control Manager
- Data Entry Clerk (Ghana Health Service, 2004)

Sources of Financing

Informal Sector Contributions

Premium rates are based on one's ability to pay. Community health insurance committees are to identify and categorize residents into social groups to enable individuals in each group know their premium rates. The social groups are the core poor, poor, middle income and the rich. The core poor (indigent) are exempted from paying any premium. Those in the paying categories pay no less than seventy-two thousand cedis (US$ 8) per annum (Ghana Health Service, 2004).

Formal Sector Contributions

For those in the formal sector (both private and public), 2.5% of their contribution to the Social Security and National Insurance Trust (SSNIT) will be taken monthly as their health insurance contribution. Thus workers in the formal sector become automatic members of the National Health Insurance Scheme, but they have to register with their respective District Health Insurance Scheme.

All contributors' premiums cover their children and dependants below the age of seventeen years. This means anybody from birth up to seventeen years of age does not pay a premium but is entitled to full benefits as with contributors. Other categories of people exempted from premium contribution are those above the age of seventy years and former SSNIT contributors on retirement. All adults have to join as members and contribute (so wife is not a dependant).

Other Sources of Funds

The government has introduced a two and half percent (2.5%) sales levy as an earmarked fund for health insurance in Ghana. Other sources include the exemption fund (from the government health budget) which was used to pay for the cost of special health services and health care cost of indigents as well as donors' contributions.

Pooling of funds

With the exception of contributions from the informal sector, all the other funds will be collated to form the National Health Insurance Fund (NHIF). The National Health Insurance Council (NHIC) will administer the NHIF and it is to be used to finance exemptions for the poor as well

as for reinsurance of schemes, cross-subsidization and risk equalization through an allocation formula that will be developed.

Benefit Package

The NHI Act (GOG, 2003) and the Legislative Instrument (LI) (GOG, 2004) set out the minimum benefit package to members of health insurance schemes. These include general out-patient services, in-patient services, oral health, eye care, maternity care and emergencies. Only a few specialized services such as HIV antiretroviral drugs, VIP accommodations etc are excluded from the health insurance benefit package. According to the LI (2004), the benefit package covers about 95% of all essential / common health problems in Ghana.

Current Stage of Operation

As of now, only Ejisu-Juabeng District in the Ashanti Region, which was used as a pilot project, has implemented the government health insurance scheme for three years (as at December, 2004). There are however, many other districts at different stages of implementing the scheme. Most of these district schemes were operating as voluntary district health insurance schemes or private mutual health insurance schemes and are by law changed to mandatory schemes.

Previous health insurance schemes were completely voluntary and autonomous. However, with compulsory health insurance, contributors have no choice as to whether they want to join or not. In addition, leaving no option for other methods of financing health care, and with ambiguous means of identifying who the poor are and how the scheme intends to take care of

their health care needs, pose some challenges. This research is undertaken to explore further the challenges the compulsory health insurance poses to households and government and what the prospects are for a sustainable, efficient and equitable health insurance scheme.

The design of the National Health Insurance is summarized in Table 2.2 below using Kutzin's framework of analyzing country specific financing mechanism.

Table 2.2: Kutzin's Framework of Analysis in Relation to Health Insurance Schemes in Ghana

KUTZIN'S FRAMEWORK	
Function /aspect	**Provisions in Mandatory Schemes in Ghana**
Sources of funding	Individuals/households, employers, Donors and Government tax revenue
Pooling of funds	Compulsory for formal sector employees, optional for non formal but should have insurance
Contribution mechanisms	Sliding scale for non-formal sector based on income levels, percentage of income for formal sector
Allocation mechanism	Risk equalization fund; funded by Government revenue, donors, exemption fund and formal sector contributions
Type of Organisation	Ownership of schemes not very clear as of now. There appears to be a co-management system by the Government and Community
Purchasing of Health services	By each District Scheme – contract is signed between scheme and accredited service providers within the district
Benefit package	Low cost and high frequency services and high cost, low frequency services (over 95% of health service needs). HIV/AIDS is excluded. Providers are Public, Private for Profit and Private not for Profit. No Gate keeping nor co-payment

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction

This chapter gives a detailed description of the methodology used in the study. The research design, the study population, and the sampling procedures are all discussed in detail.

3.2 Restatement of Main Research Objective

The main objective of this research was to undertake an evaluation of three different health insurance schemes in Ghana with respect to efficiency, equity and sustainability and to consider the implications for those schemes of the proposed mandatory schemes.

3.3 Research Design

The design for this study was mainly a qualitative one that employed descriptive survey techniques to evaluate the performance of two voluntary and one mandatory community health insurance schemes in Ghana. A qualitative design was used because it has a particular value for discovering "phenomena that were not originally anticipated. This design provides a systematic understanding of complex interactions and insight into the process of change" (Weiss, 1998:269). This study required data based on experiences of members and managers of health insurance schemes in Ghana. What were mainly being sought in the study were descriptions of experiences and opinions about the health insurance schemes. Asking study subjects to quantify their experiences (as in a quantitative study) would not have been as effective as discussing

their experiences and observations in depth. Qualitative data "is the primary form of naturalistic inquiry" (Patton, 1987:14).

3.4 Study Population

All the various types of Community-Based Health Insurance Schemes (CBHIS) in Ghana that were operating during the period of this study, technical supervisors, managers and members of those schemes formed the study population.

Four main types of community-based health insurance schemes exist in Ghana. One type is the small community-based schemes that usually cover only a small number of community members in a defined geographical area or cover an association and special groups. Others are district-based schemes that cover all people in the relevant districts; job-based schemes such as the scheme for teachers and the one for the Civil Servants Association of Ghana. Members to these schemes are voluntary. There is only one scheme whose membership is supposed to be mandatory. This is serving as the Government pilot scheme which will be replicated in all other districts in the country.

3.4.1 Sampling Procedures

3.4.1.1 Health Insurance (Study Sites)

Purposive sampling was employed and a total of three schemes were selected. The existing health insurance schemes are found in the ten regions of Ghana. These regions are: the Greater Accra Region, the Central Region, the Western Region, the Ashanti Region, the Brong-Ahafo

Region, the Eastern Region, the Upper West Region, the Northern Region, the Upper East Region, and the Volta Region.

Although generally, researchers prefer random sampling because it is considered to be more accurate and rigorous, the researcher in this study used purposive sampling. This choice was made because purposive sampling is considered more appropriate when the researcher has a specific plan, especially when there are specific predefined groups (Trochim, 2005).

Thus specific health insurance schemes were selected from different regions based on their types and nature of their operations, which were relevant to answer the research question. To arrive at the sampling of study sites, the researcher took into consideration various socio-economic differences that exist in the study sites. The socio-economic differences included the level of economic activities, income levels, the location of the region and the type of health insurance schemes operating in that region.

One district-wide health insurance scheme was selected from the Eastern Region. The region is located in the southern part of Ghana. Thus the region was sampled to represent the population and life in that part of the country. The scheme sampled from that region is one of the district-wide schemes that have operated successfully in Ghana. The scheme has been operating as a voluntary CBHIS for three years. Since the National Health Insurance scheme is going to be implemented mainly on a district basis, the lessons learnt from this scheme would be useful in the implementation of the NHI. Also the population in the district is relatively wealthy but the

district has several poor rural communities. The population and the social strata in this district provide a typical representation of the general Ghanaian population dynamics.

The second scheme was selected from the Ashanti Region, which is located in the middle part of Ghana. The scheme was the pilot project for the implementation of mandatory health insurance schemes in Ghana. It was in its third year of operation by the time of this study. The experiences from this scheme would provide useful insights into how a mandatory health insurance scheme may operate in Ghana.

The third scheme, which is a small voluntary CBHIS, was selected to represent such schemes that are turning into District-wide schemes. All the schemes in the Northern region are small community-based type. However, the one selected is among the first ones set up in the region. It had operated for about five years by the time of this study. As one of the most experienced schemes of its kind, lessons from it could help guide new schemes to be implemented in the country. The Northern part of Ghana is one of the most deprived parts of the country (Ghana Living Standards Survey, 2000). Thus experiences from this scheme could also represent what pertains in the rural poor settings.

Thus these three schemes were selected to represent the types of existing schemes in Ghana and also to represent the different socio-economic strata in the country. The table below provides a summary of the reasons for selecting particular schemes.

Table 3.1: Reasons for selecting the three Schemes

Type of Scheme	Location/ Region	Justification for Selection
District Health Insurance Scheme	Eastern Region, Relatively Southern part of Ghana	Voluntary district-wide scheme. Relatively wealthy population in district capital but poor rural communities within district
District Health Insurance Scheme	Ashanti Region, middle part of Ghana	Mandatory scheme operated for 3 years, has relevant experience
Small Mutual Health Insurance	Northern Region, Northern part of Ghana	Small Voluntary scheme, located in a deprived area, has very poor rural population

3.4.1.2 Key Informant Interviews

Once again, purposive sampling was employed. People who are involved in the promotion and management of CBHIS in Ghana were selected. Thus these subjects were selected based on their relevant experiences and backgrounds, bearing in mind the purpose (to get people with health insurance technical and management experience) of the individual interviews. A total of thirty-one subjects were selected. These included:

- 3 Insurance Board Chairmen (1 for each scheme)
- 3 Insurance Scheme Managers/Accountants (1 each from the district-wide schemes and 1 from the small CBHIS
- 3 Regional Health Insurance Coordinators (1 each from Eastern, Ashanti and Northern regions, thus from the regions where the three schemes were selected)
- 3 District Directors of Health (1 each from the districts where the selected schemes were operating)
- 2 District Chief Executives (1 from the Ashanti region and 1 from the Eastern region, the one in the Northern Region was not available)

- 3 Medical Doctors (1 each from the providers of the district-wide schemes and 1 from the providers of the small CBHIS
- 3 Senior Nurses (1 each from the providers of the three schemes)
- 2 Billing Cashiers (1 each from the Health Providers of the district-wide schemes)
- 3 Promoters and Initiators of Community-Based Health Insurance schemes (1 from an NGO in the Northern region, 1 from the National headquarters of an NGO and 1 from the headquarters of the NHI)
- 6 Community leaders (2 from each of the three schemes)

3.4.1.3 Focus Groups Discussions

Focus Group Discussions (FGDs) were conducted with members of all the three schemes. In constituting the groups, age and gender were taken into consideration. Male and female groups were constituted separately. This was so because the tradition of the people in the research sites is such that women do not feel free to express themselves in the midst of men. Also young people would usually not speak especially if their views are in contrast with an earlier opinion expressed by an elderly person. Thus separate groupings gave the various groups the ease to express their views well.

The researcher and two research assistants held discussions with sixteen groups. In each of the district-wide schemes, six FGDs were conducted. Four FGDs were conducted in the small community-based scheme. The average number of participants in each group was six. Experiences from the literature show that this number is the optimum for FGDs. Six is "large enough to provide a variety of perspectives and small enough not to become disorderly or

fragmented" (Halloway and Wheeler, 1996 : 147). In all, one hundred and five subjects took part in the FGDs. The discussions lasted between sixty to ninety minutes. With the exception of discussions in the Northern Region, which were conducted in English, all the discussions were conducted in Akan language (one of the local languages in Ghana which is the main language spoken in those research sites).

3.5 Validity and Reliability

To ensure internal validity in descriptive studies, multiple methods of collecting data and sources of evidence are usually used (Criel, 1997: 85). In this study therefore, several methods and sources of data were used. These included self administered questionnaires, key informant interviews, focus group discussions, and record reviews.

The research assistants for the focus group discussions were trained for three days and were given criteria for constituting the various groups. Research assistants were also trained on how to lead, observe and record proceedings of the group discussions. This was to ensure that the groups were well constituted and that the results reflected the views of members of the groups. As part of the training, 'role-play' FGDs were conducted to give research assistants practical experience.

The FGDs conducted during the study helped to corroborate the results from interviews with the managers and providers. The FGDs also helped to find out whether there were any alternative explanations to those given by the managers, etc.

The self-administered questionnaire and the focus group discussions guide were pre-tested with health insurance scheme manager, the accountant and the Board chairman of Jaman South District Health Insurance scheme (a district-wide scheme). The researcher asked detailed questions in the local Akan language in order to find out the respondents' understanding of the questions.

From the pre-testing, it was realized the translation of some of the items in the questionnaire were not conveying the intended meaning. Hence, these items were rephrased to improve reliability. It was also found that the initially estimated time of half an hour for the interview was inadequate; hence the researcher had to alert respondents to this before the actual interview.

3.6 Instruments of Data Collection

Questionnaire

Both structured and semi-structured questionnaires were used to collect data (see appendix "A"). Open-ended questions (guide) were used in conducting the FGDs (see appendix "B").

3.7 Data collection

3.7.1 Key Informant Interviews

The subjects interviewed included scheme managers, health service providers, health insurance technical officers and community leaders. The interviews aimed at finding out their views and experiences on the functioning and performance of voluntary schemes as compared to

mandatory ones. The interviews also sought suggestions for improvement. Thus key informant interviews were conducted on four groups of subjects.

Group one was made up of officers working directly on the selected health insurance schemes. The objective was to get detailed information on the operations of the schemes. After explanations were given to them, the officers were left on their own to complete the self-administered questionnaire, which dealt with more detailed information on the operations of the schemes. However, the researcher was around to provide further explanations whenever the need arose.

Group two was made up health care providers' representatives and government officials. The objectives were to get their experiences, views and suggestions on implementing the schemes in their health institutions and in their districts. Their experiences are relevant to the research question, particularly given the importance of acceptability of schemes to providers in promoting sustainability.

The third group was made up of officers who supervise or provide technical assistance to health insurance schemes. These included Regional Health Insurance Coordinators and officers responsible for health financing in selected organizations at regional headquarters. The technical officers were selected because of their relevant experiences in dealing with insurance schemes.

The fourth group consisted community leaders. The purpose was to get their views on performance of the different schemes in Ghana. The community leaders were interviewed because of the leadership roles they play in organizing insurance members and also acting as their representatives on the health insurance General Assemblies.

It was believed they could share experiences and suggestions for improving the running of insurance schemes. A total number of thirty-one officers and community leaders were interviewed within a three-week period.

The length of the interviews ranged from thirty to forty-five minutes. Discussions were recorded on tapes and hand written notes were also taken. The consent of the interviewees was sought before recording proceedings on tapes. The semi-structured questions used for the interviews covered views on advantages and challenges of voluntary and mandatory health insurance schemes in Ghana, the design of the National Heath Insurance Scheme, suggestions for dealing with problems and ways of improving the NHIS's implementation.

3.7.2 Focus Group Discussion

In all, sixteen focus group discussions were conducted. Participants were members of the three schemes being studied. Topics discussed covered issues on how members view the idea and operations of community-based health insurance schemes in their communities, the benefit package, how they see the services of their health service providers, how to get the poor in their communities enrolled and suggestions on improvement in the scheme running and health service provision under the National Health Insurance scheme.

In all the areas groups of women and men were formed separately to make them feel free in sharing ideas. Proceedings were both recorded on tapes as well as in the form of hand written notes and the tapes were later transcribed verbatim. Semi-structured open-ended questions were used at the discussions. Consent was sought from participants for the discussions to be tape recorded.

3.7.3 Secondary Data Collection

The researcher visited schemes' offices and studied their periodic, activity and financial reports. Other documents studied included the schemes' constitutions, their registers and other information related to the schemes' operations.

3.7.4 Ethics

Permission was sought from heads of the schemes and health institutions sampled for the study. Informed consent of all participants of the interviews and the FGD were sought. The researcher agreed not to identify individual obtained responses.

Ethical clearance was also given by the Research Committee of the University of Cape Town before proceeding unto the study.

3.8 Data Presentation and Analysis

Data is presented using tables and narratives. The results of the FGDs were translated from the local language into English. The themes and categories identified were analysed in conjunction with the results from the key informant interviews and the record reviews. Analysis has been

conducted using both the WHO and Kutzin frameworks of analyzing health financing mechanisms.

3.9 Limitations of the study

The scope of this study was limited to some aspects of the schemes. So this evaluation does not provide a holistic view of the schemes. Other aspects such as qualification and training of staff, income or poverty levels in the study sites, etc. were not covered.

Some of the schemes had incomplete data. In some cases, some pertinent data were either not available or scant. This may affect the quality of overall data available and analysis that has been conducted on them.

CHAPTER FOUR

4.0 RESULTS, ANALYSIS AND DISCUSSSION

This chapter is divided into two main parts. Part one describes the types and operations of the various schemes that were studied. The second part presents a critical analysis and discussion of the results.

4.1: Types and Operations of Schemes Studied

4.1.1 Scheme "A"

This scheme is a voluntary District-wide Health Insurance Scheme. Membership is open to all residents of that district. However, people from that district who reside outside the district are also allowed to enroll in the scheme. Thus people who are not from the district and reside outside the district are not permitted to join the scheme. The scheme was registered under the company's code of Ghana as a Non-governmental Organisation (NGO).

The district population as at 2004 was 230,000 (based on 2000 population and housing census). The economic activities in this district are trading and subsistence farming. Only about 25% of the district population is in the formal sector.

4.1.2 Enrollment

For easy administration, the district is divided into twelve health insurance zones. Each zone has agents who register and collect premiums on behalf of the scheme. Registration is done

once a year, within a period of three months. Although the enrollment fee is per person and joining the scheme is voluntary, when a member of a family/household joins the scheme the rest are required to join. The community members identify the poor and philanthropists and donors pay for the poor's premiums. The scheme itself does not have any provision to pay for the poor.

The scheme started operating in November 2002. The total number of people enrolled into the scheme to date is 18,959, forming 8.24 percent of the district's population.

4.1.3 Benefit package

Members are entitled to full hospital admission coverage. However, a co-payment of 50 percent of the cost is applied to certain health services such as hernia and fibroid operations. There is no limit to the number of times a member can benefit from the scheme.

Some special hospital Out-patient Department (OPD) services such as snakebite, dog bite and cat bite are covered by the scheme. Other OPD services that cost two hundred thousand cedis (US $22.2) or more are covered by the scheme. Members who are referred by the hospital (scheme's health service providers) to another health facility get part of their health care bills paid by the scheme, depending on the type of condition.

4.1.4 Management and Administration

The district health insurance scheme is managed by a General Assembly, Board of Trustees, staff and Agents. They have a constitution and operational guidelines. The highest decision-

making body of the scheme is the General Assembly, which in principle is made up of all members. However, their representatives form the Assembly. The Assembly appoints the Board of Trustees to take major decisions in between Assembly meetings and also to provide supervision and direction to the scheme's staff. The day to day running of the scheme is done by a four member team made up of: the scheme Manager, Public Relations Officer, Accountant and Data Entry Clerk.

The scheme's sources of income are members' contributions, donations, interest on investments and recently government grants. Major expenditure areas include cost of health services for insurance members and general administration.

A summary of enrollment, income and expenditure are found below. Amounts stated in the tables are in cedis (Ghanaian currency) unless stated otherwise. At the time of this study, the average cedi / dollar rate was 9,000 cedis per US$1 dollar.

Table 4.1 Enrollment of Scheme "A", 2002 - 2003

Year	Principal members	Dependants	Total Enrollment	District Population	Percentage Enrollment
2002	5,909	2,523	8,441	219,650	3.84
2003	13,271	5,687	18,959	230,000	8.24

The numbers of dependants in the 2 years are surprisingly low considering the general dependency ratio in Ghana of about five. One would have expected these to be higher than principal numbers. Since members' contributions are individually charged, it is possible that members do not register all their dependants.

Table 4.2: Income for Scheme "A", 2002 - 2003

Year	Premium/Dues	Government	Donation (external)	Total
2002	174,499,000 (62.6%)	- (0%)	104,300,000 (37.4%)	278,799,000 (100%)
2003	544,232,000 (74.5%)	100,000 (13.7%)	86,000,000 (11.8%)	730,232,000 (100%)

As enrollment increases, income from premiums also increases. Donations decreased in the second year of the scheme's operation, possibly due to more financial support being needed for the beginning when a lot of community education and other preparatory activities were needed.

Table 4.3 Expenditure for Scheme "A", 2002 - 2003

Year	Administration	OPD	Inpatient	Referrals	Total
2002	55,206,943 (29.5%)	- (0%)	118,028,204 (63.1)	13,734.704 (7.3%)	186,969,851 (100%)
2003	151,977,991 (24.1%)	- (0%)	452,526,457 (71.9%)	25,060,000 (3.9%)	629,564,448 (100%)

Similarly, administration costs as a percentage of total expenditure went down in the second year, which may confirm that as the scheme becomes more established, some preparatory activities will be reduced or even stopped. However, the increase in membership in 2003 was accompanied with high health care costs.

Table 4.4: Summary Income and Expenditure for Scheme 'A', 2002 -2003

Year	Income	Expenditure	Difference	Remarks
2002	278,799,000	189,969,859	91,829,149	surplus
2003	730,232,000	629,564,448	100,667,552	surplus

The scheme appears to be financially healthy. However, one of the staff is on attachment, meaning, he is actually not the scheme's staff member and that his salary is paid by the mother organisation.

4.1.5 Relationship with Health Service Providers

The scheme has two district hospitals as its providers; one government hospital and one mission (Catholic) hospital. Formal contracts have not been signed between the scheme and the hospitals.

4.2.1 Health Insurance Scheme "B"

This is also a District-wide Health Insurance Scheme (i.e. covers the whole district). The scheme was started as a pilot project for the mandatory District Health Insurance in June 2001. Although membership of this scheme is currently effectively voluntary, it is referred to as the 'mandatory' district scheme here given that it is the pilot scheme for the future mandatory system. It is located in the middle part of Ghana. The district has a population of 124,176 (based on the population and housing census carried out in 2000). Residents in the district are mostly farmers with few engaging in commercial activities. Those in the formal sector are mainly teachers and educational workers. This health insurance scheme was set up with the

assistance of a Consultant engaged by the Ghana Ministry of Health and the District Assembly (Local Government). Government provided funds for the initial set up.

4.2.2 Enrollment

Enrollment into the scheme is open to all residents of the district. Members are to register the whole family/household. Health insurance agents are in all the towns and villages to assist in registration of members. Registration is conducted once a year in the informal sector.

In this scheme, members' contributions cover three (3) dependants below the age of eighteen (18) years (thus spouses are not considered as dependants). In its first year of operation, members contributed fifteen thousand cedis (US $1.66) per annum to get fifty percent of their inpatient bills covered by the scheme (i.e. co-payment of 50%), or a member could also chose to pay thirty thousand (30,000) cedis (US$ 3.33) to qualify for one hundred percent coverage of their inpatient care costs to be paid by the scheme.

In 2004, the premium/ contributions were increased to fifty thousand (50,000) cedis (US$ 5.55) for one hundred percent (100%) coverage for those in the informal sector. Thus, there was no co-payment. At this time, the scheme had incorporated some workers from the formal sector (mainly teachers) in the district into the scheme. They contribute 1% of their salaries monthly to get 100% hospital admission coverage.

The principal members of the scheme in (2004) were 4,534. This consisted of 3,134 people from the informal sector and 1,400 from the formal sector (teachers). Their dependants below

18 years of age totaled 13,602. This means 15% of the district population of 124, 176 were covered by the scheme. There is no provision made to cover the poor or indigent.

4.2.3 Benefit Package

As indicated earlier, the scheme covers only hospital admission / inpatient services. There is no limit to the number of times a member can access services.

4.2.4 Management and Administration

This is not different from that of scheme "A" described earlier. However, in this scheme, the General Assembly and the Board of Trustees have more government representatives in them. Seven staff members run the scheme.

4.2.5 Relationship with Health Service Providers

The scheme has six hospitals including one tertiary hospital, providing services to its members. Members choose to access services from any of the providers. A memorandum of understanding is signed between the scheme and health care providers. Members accessing services go with special notes signed and stamped by the scheme to prove their membership before services are provided to them. The hospitals submit their bills to the scheme monthly and are reimbursed. They use a fee-for-service billing system.

The main sources of income are members' contributions (premiums) and government grants. Income and expenditure information was not available for each year. They were provided in

aggregated form for the period since inception (June 2001 to September 2004). The details are provided below.

Table 4.5 Income and Expenditure of Scheme "B" for the Period June 2001 to August, 2004

Income		Expenditure	
Central Government	350, 000,000	Patient bills	316, 000,000
Local Government	50,000,000	Administration	629,900,000
Premium			
Informal Sector	415,700,000		
Formal Sector (June, 2002 – September, 2004)	487,476,578.51		
TOTAL	**1,303,176,578.51**	**TOTAL**	**945,900,000**
		Balance	**357,276,578**

Premium income for the formal sector within that short period was very high. This is impressive since the formal sector constitutes only 25% of the district's population. Perhaps since those from the formal sector's contribution is based on percentage of salaries, the high income members from the sector paid high premiums which might have led to high income from that source. This exemplifies cross subsidization of high-income to low-income earners in the formal sector and from the formal sector to the informal sector when put together in a health insurance scheme. This scheme however has heavy government funding, which to a large extent accounts for the favourable balance.

Administrative costs account for about 68% of total expenditure. This is possibly due to initial set-up costs such as intensive public education and capital investments. The scheme also attributes part of the high expenditure to the cost of initial services from a consultant.

4.3.1 Health Insurance Scheme "C"

This is a small Community Based Health Insurance for people in a sub-district. The scheme is located in the northern part of Ghana, one of the economically deprived areas of the country. People in the sub-district engage mainly in subsistence farming for a living. This small scheme has been in operation since May 1999. Membership is open to all residents of the sub-district.

4.3.2 Enrollment

Members pay a flat rate of two thousand (2,000) cedis (US$ 0.22) per month per household. Community representatives assist in registration within their respective communities. Members identify indigents who are exempted fully from paying dues but they enjoy full benefits like other members. Total membership to date is 6,891 which forms 41% of its target population (16,854).

4.3.3 Benefits Package

Members are entitled to Out-patient Department (OPD) services, inpatient services (with a ceiling), minor or simple operations, accommodation and feeding whilst on admission. There is no limit to the number of times or episodes a member can enjoy services. However, if one's bill is above five hundred (500,000) cedis (US $ 55.55), she or he is made to pay the excess (co-payment).

4.3.4 Management and Administration

The scheme is managed by a Board of Trustees, made up of community representatives and two member volunteers who conduct day to day administration of the scheme.

4.3.5 Relationship with Health Service Providers

Two hospitals and all health centres (about 4) in the sub-district provide services to members of the scheme. Although there are arrangements with these providers to provide services to scheme members, no contract is signed with them. Members present their identity cards to providers to prove membership of the health insurance scheme. Health providers submit their bills to the scheme and they are reimbursed monthly. There is no negotiation on the payment mechanism, but the providers use a fee-for-service billing system. Income and expenditure of the scheme for three years are presented below.

Table 4.6: Income for Scheme "C" from 2000 to 2002

Year	Premium	Government contribution	Donations (internal)	Total
2000	8,324,000	-	-	8,324,000
2001	11,378,000	-	-	11,378,000
2002	12,240,000	-	200,000	12,440,000

Table 4.7: Expenditure for Scheme "C" from 2000 to 2002

Year	Administration	Out-Patient	In-Patient	Referrals	Totals
2000	1,900,000	2,850,000	2,600,000	-	7,350,000
2001	2,300,000	2,690,000	5,842,000	-	10,832,000
2002	2,840,000	3,400,000	6,070,000	-	12,330,000

Staff of this scheme work on a voluntary basis, hence, they are not paid salaries.

A summary of the descriptions and operations of the three schemes are presented in a table below using Kutzin's framework of analysis.

Table 4.8 Summary of the three Schemes' Operations Using Kutzin's Framework

Function /Aspect	Scheme "A"	Scheme "B"	Scheme "C"
Sources of Funds	Premiums, Government grants, external donations	Premiums, government grants	Premiums, internal donation
Pooling of Funds	The scheme collects all funds	Scheme collects all funds	Scheme collects all funds
Contribution mechanism	Contribution is 28,000 per person per year. Has covered 8.24% of population after operating for 3 years. Principal members/ dependants ratio is 0.4 Poor covered (but not guaranteed	Family /household flat rate for informal sector, 50,000 per household per year. Formal sector members pay 1% of salaries monthly. Has covered 15% after operating for 3 years. Principal members/dependants ratio is 3 Poor not covered	Contribution is 2,000 cedis per family per month (24,000 cedis per family per year). Has covered 41% of population after operating for 5years. Principal members/dependants ratio is 3.8 Poor covered
Allocation mechanism	Funds collected are kept by scheme, no basis for government grants	Funds collected kept by scheme no established basis for government grant	funds collected kept by scheme
Type of Organisation	Members are owners. NGO. Started Nov. 2002	Government-Community joint ownership. Started June 2001	Community ownership. NGO. Started May 1999
Purchasing of Health services	Services are purchased from contracted providers (2 hospitals). Fee-for service is the payment mechanism	No formal contracts with providers, but 6 hospitals in and outside the district provide services. Fee for service is the payment mechanism	Arrangement with 2 hospitals and 4 health centres. Fee-for service is the payment mechanism
Benefit Package	High cost low frequency services (inpatient and some selected OPD services). No limit to number of episodes Co-payment for some surgeries	High-cost low frequency services (only inpatient services covered) . No limit to frequency. No co-payment	Both low-cost high frequency and high-cost low frequency (inpatient and OPD services). Co-payment for some high-cost services

4.5.0 Part Two: Analysis and Discussion

The first objective of this study was to compare the performance of a voluntary Community-Based Health Insurance Scheme, a voluntary District-wide Scheme and a pilot mandatory district-wide scheme in Ghana in achieving sustainability, equity and efficiency. Therefore the analysis is done following those criteria. It will also be considered in this section whether or not the mandatory scheme will overcome existing CBHIS's challenges.

4.5.1 Sustainability of Schemes – Financing

Once again, amounts stated in the tables are in cedis (Ghanaian currency) unless stated otherwise. At the time of this study, the average cedi / dollar rate was 9,000 cedis per US$1 dollar.

Table 4.9 : Total Income for the three (3) schemes, 2001 - 2003

Income	Dues	Government	Donation	Totals
Scheme "A"	718,731,000	100,000,000	190,300,000	1,009,031,000
Percentage	71.2%	9.9%	18.9%	100%
Scheme "B"	903,176,578.50	400,000,000	-	1,303,176,579.50
Percentage	69.3%	30.6%	0%	100%
Scheme "C"	31,942,000	-	200,000	32,142,000
Percentage	99.4%	0%	0.6%	100%

About 30% of income for the district health insurance schemes (schemes "A" and "B") is from external sources (government and donors). This income was more for the starting years (2002 and 2001 respectively) but reduced in 2003. During interviews with the managers of the

schemes it came out that this was so because of the high level of start up costs. It was found that such relatively large scale schemes require intensive public education and marketing especially in the initial stage. Also this was the time they needed certain office equipment such as computers, printers, scanning and laminating machines. This is seen in the high expenditure in administration for the district-wide schemes in table 4.2.

The government grant to the mandatory scheme is particularly high. This was so because the scheme was the government's pilot project based on which such type of scheme will be extended to all districts in Ghana. It was therefore necessary for Government to put in extra resources to ensure the scheme is running in order to realize that objective.

The other district-wide scheme was a community initiative and was only supported later by the government for the same objective of possible extension of such schemes to other districts. The scheme sought financial assistance from an external donor. The donor was also interested in community initiatives. It is also worth noting that the mandatory scheme did not receive any direct donor support within the period.

The small community scheme neither received government grant nor external donor's assistance. No explanation was provided for this situation during the research.

Table 4.10: Total Expenditure of the three (3) Schemes, 2001 - 2003

Scheme	Administration	OPD Services	Inpatient services	Referrals	Total
Scheme "A"	207,184,934	-	570,554,661	38,794,704	816,534,299
Percentage	25.4%	0%	70%	4.8%	100%
Scheme "B"	629,900,000	-	316,000,000	-	945,900,000
Percentage	66.6%	0%	33.4%	-	100%
Scheme "C"	7,040,000	8,940,000	14,512,000	-	30,492,000
Percentage	23.1%	29.3%	47.6%	-	100%

Expenditure on administration in the mandatory scheme (scheme "B") is higher than the other district-wide scheme (66.6% as compared to 25.4% of total expenditure). The mandatory scheme attributed this to the use of expensive consultancy services in the initial stage of its set up. As the government intends to extend a similar scheme countrywide, less expensive or more sustainable technical assistance may be needed since it might not be feasible to offer such expensive consultancy for all districts.

Administrative expenditure of the small community scheme (scheme "C"), as compared to the district-wide schemes was relatively low. From the interview with the managers of the scheme, it came out that such a scheme might not require similar initial intensive public education and marketing activities, "...we are all around here, when we hold a meeting, the community representatives inform their respective communities, this does not involve much costs, we only provide lunch...." (key informant interview: scheme 'C').

However, administrative cost as a percentage of total expenditure in the small CBHIS as compared to the voluntary district-wide scheme is relatively high considering the fact that the

small CBHIS has voluntary staff. A further analysis is conducted below to find out the administrative cost per member.

Table 4.11 Comparative Analysis of Administrative Costs between Scheme 'A' and Scheme 'C', 2001 - 2002

Scheme	Administration costs	Total membership	Administrative cost per member
Scheme 'A'	207,184,934	18,959	10,928
Scheme 'C'	7,040,000	6,891	1,022

This shows that although in terms of percentages the administrative cost of scheme 'C' is close to that of scheme 'A', the actual amount spent per member is far lower.

Overall the administrative expenditures are very high in the three schemes. Community-based health insurance schemes in West and Central Africa typically spend five to ten percent (5-10%) of their total annual expenditure on administration. The pilot schemes in Rwanda also spent approximately seven percent (7%) of their total annual expenditure of administration (Bennett et al; 2004). These figures compare well with the US health insurance industry where twelve percent (12%) of revenue typically goes on administrative expenses (Diamond, 1992). Thus the administrative expenditures ranging from 23% to 67% of annual expenditures as found in this study are too high. According to Bennett et al (2004), the level of administrative costs of CBHIS is affected by factors such as the size of the scheme, how streamlined administrative and operational systems are, the frequency of dues collection, the nature of

provider payment systems, and the form of organisation operating the schemes. For example larger schemes are likely to benefit from economies of scale; they can spread their relatively fixed administrative costs over a larger membership group and consequently administrative costs will most probably constitute a smaller fraction of overall expenditure.

A probable explanation of such high administrative expenditures in the three schemes in Ghana could be the kind of services they offer to their members. Experience shows that schemes that provide insurance against a wide range of expensive hospital services may require more complex administrative systems (which are costly) in order to function well (Atim, 1998). Another explanation could also be the computers, printers and other equipment these schemes purchased. These are not typical expenditures of CBHIS. Usually, as small schemes in rural areas, CBHIS do not set up permanent offices, employ permanent staff and purchase such modern office machines.

The schemes spent the majority of their income on purchasing health services for their members (with the exception of the mandatory scheme). The health insurance schemes provide a way for addressing previously unmet health service needs as also found by Aikins (2003). This is supported by some of the findings from the focus group discussion. A participant of one of the women's FGDs for the voluntary district-wide scheme (scheme "A") remarked, "...now I feel free to go to hospital, I have no fear of being asked to pay deposit..." In another women's group, a participant commenting on the advantages of the scheme also said, "... it helps us and our children, even if we don't have money, we can go to the hospital ..." (women's FGD scheme "B"). However, health insurance suffers from members abusing the system, over using

the services unnecessarily because they will not have to pay for the services (i.e. moral hazard). However, since most of the benefits package in all schemes is for hospital admission, it is unlikely that members will go on admission when not needed (the decision to go on admission is determined by doctors). It is thus unlikely that moral hazard could have played a major role. This is an indication that funds have been used effectively and efficiently (for the ultimate purpose).

Nevertheless, expenditure on health services can increase dramatically over time. For example, in scheme 'A', the only scheme for which annual expenditure and membership data are available, expenditure per beneficiary increased from 15,000 cedis in 2002 to 25, 000 cedis in 2003. Thus in the initial phases, expenditure may rise quite fast.

OPD expenditure of the small scheme relative to its expenditure on admission was high. Usually, OPD services are less expensive than inpatient services. To have such a high expenditure for OPD implies those services were used more frequently than hospital admissions. This is an indication that if OPD services are included in the benefit package in the district-wide schemes, it is likely services costs would be higher than the present ones.

Most of the hospital managers interviewed expressed a fear of sudden increase in workload, "...the insurance is good, it has increased admission in our hospital by almost 50%, ... attendance is likely to increase more when OPD is included, but my fear is that our staff numbers are going down, ... we can't cope with the workload with the present staff strength ..." (key informant interview, providers to scheme "B").

The above quotation also alludes to the issue of staff strengths in relation to workload likely to be experienced when the National Health Insurance starts. Presently, most health institutions in Ghana are understaffed and are overburdened with workload even though these institutions are underutilized (from the perspective of there being unmet need) owing to financial barrier. Therefore, when this financial barrier is removed (by the NHI), many more people will utilize health services. Without a corresponding increase in staff strengths, the situation could lead to poor quality health services that will eventually threaten the sustainability of the NHI.

Further analysis is conducted here to find out if external financial assistance is withdrawn, whether schemes would be self-sustainable. Therefore income as analysed here refers to income from contributions (which include return on investments of contributions).

Table 4.12: Income of Schemes, excluding Government and Donor Grants, 2000 - 2003

Scheme	Membership contribution income	Total expenditure	Difference	Percentage difference
Vol. DHIS (Scheme "A")	718,731,000	816,534,299	-97,803,299	-13.6%
Mand. DHIS (Scheme "B")	903,176,578	945,900,000	-42,723,422	-4.7%
Vol. CBHIS (Scheme "C")	31,942,000	30,492,000	1,648,000	5.1%

The above analysis suggests that the district wide schemes appear to be unable to fund their operational costs from their internally generated funds (premium collection). There are deficits of 13.3% and 4.7% of total costs for the voluntary District Health Insurance and the Mandatory Health Insurance schemes respectively. As explained earlier, the start-up costs were high in the district-wide schemes, which inflated their total expenditure. The small community scheme did not make such initial investments. Also the small scheme has been operating for five years and might not need much community education as compared to the other two schemes.

In addition, staff of the small scheme are not paid salaries. Volunteers run the scheme. If scheme staff were to be paid salaries, this scheme's financial position may not be as it is now. This is because salaries form a high percentage of scheme's administration costs. The problem of deficits is more severe in the voluntary district-wide scheme. As indicated previously, this is not only due to relatively high education costs but also to rapid increases in expenditure on health services per beneficiary. It appears the formal sector contributions, which are high but from few people are helping the mandatory scheme. This confirms the need to merge the formal and the informal sectors in this form of health insurance scheme as found in the literature. Kutzin (1999) found that the potential of this kind of health insurance to generate revenue depends on the size of the formal sector employment, the degree to which workers in the informal sector can be incorporated, and the income levels of the economically active population.

4.5.2 Acceptability to Target Population

Acceptability of the scheme by the target group is crucial to the sustainability of CBHIS (and SHI) as revealed in the literature (Bachmann 1994; Normand and Weber 1994). Acceptability is usually indicated by the percentage of target population enrolled into the schemes. Therefore percentages of the catchment populations enrolled into each scheme are analysed below.

Table 4.13: Coverage of Schemes as against target population from 2001 to 2003

Scheme	Target Population	Number enrolled	Percentage covered
Vol. DHIS (Scheme "A")	230,000	18,959	8.24%
Mand. DHIS (Scheme "B")	124,176	18,134	14.6
Vol. CBHIS (Scheme "C")	6,871	16,854	41%

Coverage or enrollment into the schemes is generally low. The community-based scheme and the Mandatory Scheme achieved relatively higher coverage. A contributory factor to the level of scheme enrollment is the length of time each has been in existence. Scheme 'C' started in May 1999, scheme 'B' started in June 2001 and scheme 'A' only in November 2002. Scheme 'C' is also in a small community where solidarity is strong. Solidarity has been found to be one of the factors that facilitate successful implementation of community-based health insurance schemes (Atim, 1999). Also although in all three schemes, members are expected to enroll their dependants, the different contribution structures might have accounted for some differences in coverage levels. In the mandatory scheme, members in the informal sector contribute fifty thousand cedis (US$ 5.5) per year whilst those in the formal sector contribute 1% of their salaries per month. But members' contributions cover three dependants below eighteen years.

Also in the community scheme, members contribute two thousand cedis (US$ 0.2) per month (thus about US$ 2.7 per year), which covers all the members' dependants below eighteen years. In the voluntary district-wide scheme however, members are required to pay twenty-eight thousand cedis (US$ 3) per person in a year. Further analysis is done below to find average contribution per enrollee in each scheme.

Table 4.14: Comparison of the three Schemes Contribution Rates

Scheme	Contribution per year in cedis	Number of family members covered	Average contribution per family member
Vol. DHIS	28,000	1	28,000
Mand. DHIS	50,000	4	12,500
Vol. CBHIS	24, 000	4	6,000

NB. For easy comparison, absolute figures/contributions from the informal sector are used instead of percentage salaries from the formal sector in the Mandatory scheme. This is also because members in the other schemes are all contributing in absolute figures and are mostly from the informal sector.

From the table, the voluntary district-wide scheme is the most expensive per enrollee as compared to the other schemes. In the mandatory and the community-based schemes, since members' contributions cover their dependants, they are probably encouraged to enroll all members of their families. Hence they achieved relatively higher coverage.

It appears in the voluntary district-wide scheme, those who cannot afford to pay these individual fees register only few or no dependants. This system is likely to encourage adverse selection. In the face of inadequate funds to pay for all dependants, principal members are

likely to enroll only high-risk members of their families. This suggests that having a family rate of contribution is likely to increase coverage and minimise adverse selection more than using contribution per person. This finding confirms those of Shepard et al (1996) and McIntyre (1997) that family registration reduces adverse selection and allows schemes to reach many members at a time making use of economies of scale.

There is however the need to study these issues further to find out whether the family rates being charged by schemes A and B are adequate to cater for the cost of the scheme's operations.

In the National Health Insurance (NHI) scheme, the rates of contribution are per family (a minimum of 72, 000 per year). In response to a question on whether with the coming of the national health insurance membership will increase, one FGD participant said, " ....our children below seventeen years and the elderly above 70 years will not have to pay contributions, hence they would all join the scheme.... this will definitely increase membership, ... we are told it will be compulsory for us, therefore everyone has to join, we have no choice" (Male FGDs scheme 'A' district). Almost all the participants in the key informant interviews at different places also mentioned this and added the fact that enrolling all formal sector employees and their families into the National Health Insurance scheme will increase coverage.

Participants of the FGD in the two district-wide schemes' target population gave these reasons for joining the schemes: the benefit package, especially free hospital inpatient care, reduction in frequent and preventable deaths; relatively affordable rates of contributions as compared to

hospital bills; more convenient to pay than to pay hospital bills at the point of receiving services; and reduction in communicable diseases since infected people get treated earlier.

However, the following reasons were given for not joining the scheme. About half of participants of the focus group discussions mentioned that members do not get quality services from providers. They mentioned particularly bad reception at hospitals, rude nurses, and the fact that the schemes cover only drugs in the Essential Drugs List (EDL).

The issue of quality services came out several times during the key informant interviews and FGDs. The problem was more severe in the health care provider for the voluntary district-wide scheme. Most members were dissatisfied with the quality of health service; " ... they will tell you they don't have drugs, ... the nurses don't talk well to us.... I wish we had another hospital to attend" (FGD: scheme 'A' district). Another one said, "when the NHI begins, this problem will be solved, we can go to a hospital of our choice, ...one can be treated anywhere he/she likes." Perhaps quality of the health care that members receive also contributed to the low enrollment rate as they were not happy and therefore discouraged from joining the schemes as found by Arhin (1995), Bachmann (1994) and Kutzin (1996).

The NHI design allows for private insurance to be run alongside district insurance schemes. If quality of health services in the public sector is not improved to attract all levels of income earners, the system may lead to "cream skimming" creating a two tier system and eroding cross subsidisation as happened in Chile (Sapelli, 2004). This is because those who can afford high premiums are likely to opt for private insurance in order to get services of desired quality.

They also mentioned the fact that schemes do not cover general OPD services and also that inpatient services are infrequent. Others complained about not getting their drug costs reimbursed after they have paid providers. These complaints were more pronounced in the areas where the district-wide schemes are being operated. These are important issues that require attention.

In the National Health Insurance, provisions are made in the design to deal with most of these issues. OPD services are included in the benefit package. There is also an inbuilt mechanism to deal with quality of service. This is because providers (both private and public) are to meet certain minimum standards before they qualify to be contracted to offer services to insured members. If these are adhered to, coverage is likely to be higher than it is in the present schemes since members will hopefully receive better services.

The worry here though is the size and volume of the benefit package of the National Health Insurance scheme. The NHI covers almost all disease conditions in Ghana. One of the key informants interviewed remarked, "... the benefit package is too broad, covering all OPD and hospital admission cases ....." (key informant interviews: Health insurance officer). Another officer in an NGO that provides technical assistance to health insurance schemes in an interview also said "... I am afraid we don't have the experience and capacity to cope with the volume of services members will demand; so far none of the schemes has tried such a broad benefit package."

Barnighausen and Sauerborn (2002) found that incrementally adapting a benefit package contributes to sustainability. They advised countries embarking on a universal health insurance system to start with packages limited enough to be financially viable. Evidence also shows that all countries that have achieved universal coverage started by covering sub-groups of the population (Normand and Weber, 1994). The formal sector in Ghana forms less than 30% of the population (Ministry of Health, 2002). Thus the extent to which contributions from this sector will generate sufficient income to cover expenditure requirements associated with increased service use in the NHI needs to be given another critical look.

An incremental approach however may have equity implications. It means sections of Ghanaians will have health insurance and better health care services whilst others will be left to their fate. In the face of a long history of financial barriers to care, everybody would prefer to be part of the NHI or have a better mode of paying for health care costs than the current user fee system. This calls for devising means to avoid any inequitable situation. Perhaps it would be helpful for Ghana to also start on a limited benefit package but covering all citizens and expand the benefit package gradually. Other means of financing health care outside the benefit package could run alongside the NHI in the interim as was done in Europe (DFID, 2002).

Another problem mentioned is the fact that some people cannot afford the premium (mainly due to poverty). These reasons were common to all scheme types. These confirm the findings of Arhin (1995), Shepard et al (1996), Shaw and Griffin (1995) that low coverage of CBHIS is attributed to among other factors, the type of benefit package, quality of service and levels of poverty.

Others also think that they will be paying higher premiums in the NHI scheme than the previous ones; ".....seventy thousand cedis (US$ 7.8) is too high, can't it be reduced?" (Male FGD: scheme 'A' district). Some other members of the same group also said, " we are poor farmers, we don't have money, can the government help us?" This was a recurring theme especially in the male FGDs in the district where the voluntary district-wide scheme operates. However, members of this scheme are currently paying almost half of this amount as the contribution per individual per annum. Meanwhile in the National Health Insurance, the amount paid covers a whole family and there is no limit to the number of dependants one may have. Many appear not to have detailed information about the National Health Insurance. This also emphasizes the need to do more education on the NHI design and provisions.

4.5.3 Acceptability to Providers

All the health service providers of the three schemes are satisfied with the system. Some have changed their information and billing systems in order to meet the insurance scheme's requirements. Generally, these providers believe the health insurance system has minimized the level of unpaid bills, improved service delivery since patients report earlier and are able to purchase prescribed drugs. One of the providers reported about a 50% increase in patients' attendance since the introduction of health insurance.

Providers however have some challenges. Challenges in the clinical areas include classification of surgeries into minor and major (where insurance covers only minor surgeries) and moral hazard (for example, some insured patients refused to be discharged and others also request

more expensive drugs). Some referred patients return with the reason that the next level is not cooperative with insurance procedures.

According to one hospital manager whose institution serves members of the mandatory scheme, " some patients (intentionally) report late in order to be admitted", as this scheme covers only admission services. One of the managers at the hospitals for the voluntary district-wide scheme also said, "...some would come in the night in order to be admitted." When asked of why this happens she said, "...because the insurance covers mainly hospital admissions, ... if OPD services were included, perhaps people would be encouraged to attend hospitals as soon as the need arises and would not wait till night". This is supported by the fact that the small community-based scheme never reported any experience of this kind since that scheme covers OPD services.

Managerial problems mentioned by the health care providers include absence of designed format for submission of bills to insurance schemes and the fact that bills are to be submitted in detail, which requires a lot of time. One of the officers in the hospital which provides services to the voluntary district wide scheme said, " we have to provide patient details as well as treatment details, .. we are to do itemized billing manually for many patients, we do not have the staff and the time for all these, it takes too much time." As of now, health care providers design their own formats for submitting bills in order to meet the insurance schemes' requirements for reimbursement. Another manager of the same hospital also said, "it is difficult to know what format would be most convenient and appropriate, the problem sometimes causes delays in submission of bills, ... the insurance officers also need to verify each of these bills

before payment is effected and this causes much delay in the process". This highlights the need for investment in more efficient billing and verification systems with the move to an NHI.

Also where certain conditions are exempted from full coverage, there has not been a clear definition of such conditions. Providers are sometimes not sure of what is fully covered by the scheme and what requires co-payment, etc.

Among the three schemes, none has a formal contract between health care providers and the insurance scheme hence issues like deadlines for submission of bills and reimbursement are not specified. This could be a potential source of conflict between schemes and health care providers. Fortunately, there is a provision for contracting in the NHI. However, the format and actual content of such a contract have not been designed yet. It would be helpful for some of these issues such as format and deadlines for submitting bills, means of bills verification by insurance schemes and possible date for reimbursement to be specified.

Another problem raised by the health care providers of the mandatory scheme was that dependants are not issued with identity cards; "...they use their parents' cards, which is confusing." The health care providers find it difficult to verify the dependants' membership. This problem was absent in the voluntary schemes since each member whether principal or dependant is given a photo identity card.

A common problem that was raised in all the interviews was that some insured patients appear not to be aware of their benefit package. They therefore request several services outside the

insurance benefit package. In the NHI, these are clearly stated in the Legislative Instrument (LI), but only a few people may have access to this document. Even if the LI is made available to all, owing to the level of illiteracy in Ghana, it will still be out of reach to many people. This again calls for devising tailor-made and more effective means of doing public education on NHI bearing in mind the literacy background of most Ghanaians.

Thus, whilst the mandatory NHIS has the prospect of increasing coverage, necessary administrative procedures and definitions of certain clinical terms need to be established.

4.5.4 Efficiency

Administrative efficiency: All three schemes have similar administrative structures that involve community representatives and scheme staff. The district-wide schemes however have full time paid staff whilst the community-based scheme has volunteers who manage the scheme.

Administrative costs of the mandatory scheme, as indicated earlier are the highest amongst all the schemes. That scheme too has the highest number of staff. The details of staff strengths and member to staff ratios of the schemes are found below.

Table 4.15 : Staff strengths of schemes

Scheme	Number of staff	Staff status	Member to Staff Ratio
Vol. DHIS	4	three full time and 1 staff seconded to the scheme	6,850 :1
Mand. DHIS	7	All temporary, yet to be confirmed	2,590 : 1
Vol. CBHIS	2	Volunteers	3,435:1

The staff strength of the mandatory scheme in relation to membership appears to be on the high side. Each staff member in the mandatory scheme has less than half the number of members that a staff in the voluntary district-wide scheme has to handle. Although the staff strength of the voluntary community scheme seems to be low, in terms of member /staff ratio, the voluntary district wide scheme staff have about twice the workload per staff member as compared to staff of the community scheme. Thus looking at staff numbers alone, the community scheme may appear more efficient but this comparative analysis shows otherwise.

The mandatory scheme situation could once again be explained by the fact that the government is fully supporting its operations as a model for other districts. A district scheme of this nature will require staff with various backgrounds such as accounting, marketing, management etc. Perhaps the mandatory scheme has the full staff compliment owing to the expected coverage. But this indicates that coverage of schemes needs to be considered when employing staff for such schemes. In the National Health Insurance Scheme, each district scheme will employ a minimum of six staff. An insight from the results presented here is that perhaps the employment of staff could be done gradually considering membership at each stage before employing an additional staff member in order to be more efficient.

Although all schemes claim to be doing family registration to minimize adverse selection, there are no practical measures in place to enforce this. It appears this weakness affected the number of dependants that principal members of the schemes enrolled. The principal member / dependants' ratio are analysed in the table below.

Table 4.16 Principal member / dependants Ratio for the three schemes, 2001-2003

Scheme	Principal members	Dependants	Principal Member/Dependant Ratio
Vol. DHIS	19,180	8,210	0.4
Mand. DHIS	4,534	13,602	3.0
Vol. CBHIS	1,424	5,447	3.8

Although it is optional to join the voluntary district-wide scheme, it is compulsory for every principal member to enroll all her/his dependants when one decides to join. Meanwhile as mentioned earlier, contributions are made per person and there is no means of verifying whether or not one enrolled all her/his dependants. Members are likely to register only dependants who are likely to fall sick. This could have contributed to the low principal member/dependant ratio in this scheme (0.4).

In the mandatory scheme however, principal members' contributions cover three dependants. During the key informant interviews and the FGDs, it came out that those who do not have dependants feel exploited since they pay the same amount as those who have three dependants. For example some participants of the FGD said, " I am not even married, I have no dependant but we all pay the same amount." Another one said, "it is not fair, how can I pay the same amount that covers four or more people, meanwhile I am alone" Yet another commented, " it is

better to take a relative's or a friend's child as my dependant ..." These were comments from participants of one of the male FGDs in the mandatory district-wide scheme. It is possible that some principal members are enrolling non-members' dependants as theirs. The principal member/dependant ratio is 1:3 as found in Table 4.7. This is a major weakness in the family contribution rate system.

In the small community-based scheme principal members' contributions cover their dependants and they are not limited to any number of dependants. Principal members/dependants ratio is nearly 4 in this scheme (see Table 4.16). The schemes that have family contribution rates face the challenge of crosschecking the right age of dependants. Dependants are supposed to be less than seventeen years in the mandatory scheme and eighteen years in the small community scheme.

Thus the tendency for principal members to 'cheat' in one way or the other (either adverse selection as happens in contribution per person or enroll unqualified dependants as in contribution per family) is possible in all the schemes. The tendency to 'cheat' is however more acute in the scheme which has a contribution rate per person because it is more expensive to enroll each additional dependant than in the others.

In the NHI, there is no limit to the number of dependants a principal member may enroll as long as that dependant is below the age of seventeen. This is likely to reduce possible adverse selection. However, the problem is that Ghana does not have good demographic data including

dates of birth. Principal members may exploit this weakness and enroll "dependants" older than the stipulated age.

In the NHI, OPD services will be covered. A risk that is likely to be experienced is fraud especially if compulsory membership is not enforced from the beginning. Members can for example, feign sickness and collect drugs for others who are not members of the scheme (in OPD services). In the previous schemes, the sense of ownership and community solidarity might have accounted for 'good' behaviour of members. However, in Ghana there is a general apathy towards projects belonging to Government and there is the fear that such communal spirit that guided scheme members' behaviour might not be there in the NHI. A comment made by a health insurance technical advisor alludes to this; " ...members will think.....its a public good,...it makes charlatan, its for government, not for us ..." A member of the voluntary district-wide scheme also remarked in one of the male FGDs that " ... this one is for us, we must ensure that no one cheats us or runs away with our money, if government brings money, she has to find means of securing her money ...". Again another person said, "when government brings money, it is for us all, but this one, we have contributed our money, you can't play with it....." (FGD in Scheme 'C' community).

All the three schemes studied are using fee-for-service as a payment mechanism. Evidence from the literature shows that such a mechanism can lead to supplier-induced demand and therefore increase insurance schemes' costs of operation (Rosewitz and Webber, 1990). The study did not do a detailed analysis of this problem in the three schemes.

In the NHI a fee-for-service system is to be used as the payment mechanism. Meanwhile all kinds of health care providers including the public, private –for- profit and not- for profit will be serving insured patients. It is advisable that other methods of payment are also evaluated against a fee-for-service mechanism in a bid to choose a more efficient payment mechanism. This may also be supported by providers, given their comments presented earlier on the difficulty and cost of itemised billing.

4.5.5 Equity

Equity of Finance

The present design of contributions to the insurance schemes favours people who have the ability to pay. Generally, one does not benefit if she/he is unable to make contributions. With the exception of the community-based scheme, there is no explicit provision to cater for the poor. There are no criteria for declaring one indigent. Community members use their own judgments.

The voluntary district-wide scheme has a flat rate per person for all categories of contributors (adults and children, principal members and dependants, the wealthy and the poor). Meanwhile enrollees are expected to enroll all members of their families. This means those with large family sizes pay more; in that a principal member pays the same premium multiplied by the number of dependants he/she has. For example, if one has seven dependants, one pays 28,000 cedis multiplied by seven. Thus there is no inbuilt mechanism to cross subsidize from small to big family sizes or from singles to those with families. More importantly, there is no cross-subsidy from high-income earners to low-income earners.

Although this scheme gets philanthropists to pay for the indigent, discussion with managers of the scheme revealed that these are individuals who in each year decide to assist those who are unable to pay. The people involved keep on changing every year. The funding of the poor is neither from an organisation nor any reliable institution. Thus this source of paying for the poor is not reliable and the poor may be excluded from coverage. This may confirm the findings of Preker and others (2002) that in voluntary prepayment schemes, the poor are left out.

In all three schemes studied, only the community-based scheme had an arrangement to cater for the poor; members shared the cost to cover the indigent. In the voluntary district-wide scheme, some philanthropists give money to the scheme to pay contributions of those who cannot afford. The scheme managers liaise with religious and community leaders to identify the poor who are then covered by the fund. The mandatory scheme did not have any provision for the poor at all. The need to cover the poor is crucial to ensure equity of both finance and service delivery.

In the National health insurance (NHI), the indigent are to be identified by insurance committees for them to be exempted from contributing. The problem in the NHI design is that no specific criteria have been set to guide these committees in identifying the indigent. It is critical to clarify how the poor will be identified as it has come out as a concern several times in this data collected.

The mandatory district scheme's contribution system may be relatively progressive if lower income groups have more dependants than high income groups. Principal members' contributions cover their dependants. In the mandatory scheme, since contributions from the formal sector are as a percentage of one's income, it allows for cross subsidization from high-income earners to the low-income earners. However, the problem arises with those with more than three dependants, the maximum number allowed. This problem is avoided in the community-based scheme, which does not limit the number of dependants a principal member may register. This is in line with the design of the NHI in which principal members are allowed to enroll all their dependants.

As mentioned earlier, the mandatory scheme had more government financial support than the other district-wide scheme whilst the community scheme did not receive any financial support from the government. The NHI will be organized on a district basis. While each district will be expected to mobilize funds through contributions, government will be supporting the schemes through a cross subsidisation and a risk equalisation fund. The purpose of this is to ensure equity and efficiency in government health resource disbursement and utilisation.

As of now, no clear criteria are in place concerning allocation of government resources to schemes in the design of the NHI. This poses a danger of possible arbitrary allocation. If these criteria are not clearly established and adhered to in the implementation of national mandatory health insurance scheme, allocation of resources is not likely to be efficient or equitable.

Equity of Service Delivery

Access: By the design of the schemes, except for geographical reasons, all members have equal financial access to health services (at least within the benefit package). Considering the poverty levels in the areas that the schemes operate, the researcher agrees with Yang (1991) that the co-payment in some health services and the upper limit set for cost of services place limitations on those who cannot afford their part of co-payment.

Utilisation: The geographical locations of some members of the schemes and the kind of service providers in their areas of residence place limitations on their level of utilisation. All the schemes studied have tertiary and district hospitals whilst one is also using health centres. Those close to hospitals are likely to get better quality and more services than their counterparts living far away and in rural areas of the districts. In an attempt to use the hospitals, those living in remote areas will have to spend more on transport. Depending on place of residence, while some health insurance members utilize tertiary hospital services, which are of better quality, others use services from health centres. This confirms the findings of Stinson (1984) and Abel-Smith and Dua (1988) that in insurance of this nature those in rural areas either receive lower quality service or spend more to get better services in towns.

Hospital charges are also usually higher than health centres. Thus the schemes spend more on those who use hospitals, which is both inefficient and inequitable. There are thus remaining equity challenges in the current schemes.

A summary of the detailed analyses of the existing schemes is presented below using a combination of Kutzin and WHO frameworks of analysis.

Table 4.17: Kutzin's Framework in Relation to WHO's Framework of Analysis as Applied to the Three Schemes

Kutzin's Framework		WHO's Framework of Analysis in Relation to Aspects/Issues					
Function /Aspect	**Factors / Issues**	**Finance**	**Members' Acceptability**	**Providers' Acceptability**	**Administrative Efficiency**	**Equity in Finance**	**Equity in service Delivery**
Sources Of Funds	Premiums, Government grants, donations	Heavy reliance on external sources due to start-up phase costs	Low patronage due to poverty, contribution per person instead of per family,	Clinical and administrative problems I	High administrative costs, due to start-up costs and public education, expensive consultancy services	Flat rates per person for vol. dist. scheme. Family contribution rate for others. Percentage on income for formal sector members in mandatory scheme	
Pooling of Funds	The scheme collects all funds	Schemes collect and use own funds, with government subsidy to some	All members accept putting their contributions together	-	-	Indigents covered by philanthropists; not reliable others leave poor out	Equal financial access but geographically inequitable
Contribution mechanism	flat rate per person or per family paid once a year. Percentage on salaries	Formal sector sustainable, informal sector needs to increase coverage	Members prefer family contribution		Efficient as collection is done once /year. Formal sector uses existing structure	In vol. dist. Scheme, all members pay same amount. In others family rates are paid (equitable)	Same benefit package for all members in same scheme
Allocation mechanism	No allocation basis established yet	-	-	-	-	inequitable	-
Type of Organisation	NGO. Gov't/ Community joined	NGOs; Govt, Community	No special preference but less trusting of government run organisations	-	-	-	-
Purchasing of Health services	Purchased by schemes	Fee-for service is used by all schemes, which creates sustainability problems	-	Highly acceptable, it makes them sure of right billing, poor quality service	Not efficient due to possible supplier induced demand	Hospitals have higher fee rates than rural health centres	-
Benefit Package	High cost low frequency services. No limit to number of episodes	Sustainable since limited to selected infrequent services	Acceptable but Prefer OPD services inclusive	Prefer more services but fear for accompanied workload	Efficient – limited service easy to manage	Low income earners are unable to afford co-payments	Some have easy access to hospitals whilst others use rural health centres

4.5.6 Possible Implications for the Three Schemes Changing to the National Health Insurance (Mandatory) System.

The second objective of this study was to assess the possible implications for the three schemes changing to the National Health Insurance Scheme in Ghana. Therefore such implications are discussed below.

Considering the present operations of the three schemes and the design of the National Health Insurance (NHI) Scheme, the change is likely to have both positive and negative effects on the three schemes.

Process of Change

Implementation of the NHI makes no transitional provision for the existing schemes. During the interviews, the managers of the schemes appear not to be aware of how their schemes will change. However, they have been informed that they are expected to implement the provisions of the NHI by January 2005. One scheme manager of the voluntary district-wide scheme made the following comments, " we will have to change our operations to conform to the NHI, how we will go about this is not known yet, we do not know how this will be done..." The manager of the small community-based scheme said, "... we prefer to remain like this, if we have to change in the middle of our insurance year, we don't know how we will handle issues concerning members claims or whether we should give back members contributions to them.." Thus there appear to be some areas of confusion that need to be clarified as schemes prepare to change to the NHI.

Some of the scheme managers would also prefer that the change to NHI is done gradually. Even the managers of the mandatory scheme appeared not to be ready for a sudden change to the NHI. One of the managers of that scheme said, "...how do we change suddenly like that? ... we have been collecting people's money, we need to be given some time to render accounts and also ensure that they benefit from the contributions they make before the NHI starts. Otherwise, we have to find ways of giving their money back to them.....or their contribution will have to be considered as part of the NHI contribution." These statements suggest that if the process of changing to the NHI is not well planned and managed, these existing schemes will have problems with their current members. It is not clear how this will be done.

Acceptability and other Sustainability Issues

The change is likely to lead to an increase in schemes' coverage. This is because the schemes will get national recognition and legal backing (mandatory). Hence Ghanaians will have to accept this system of health care financing. Exclusion of OPD services from the benefits package was one of the main reasons for many people not joining the present schemes as was found in this study. Since the NHI benefit package includes OPD services, it is likely to attract those who were not joining the schemes. Also the change in contribution mechanism from contribution per person to contribution per family, especially for the voluntary district-wide scheme, will possibly increase coverage as was found in the evaluation of the three CBHI schemes.

The implications for the schemes are that they will have to expand resources in order to cope with the workload. The average district population in Ghana is one hundred thousand. If all join the scheme, the schemes are going to have a big number of people to deal with.

During the study, it came out that most of the staff of the schemes had no formal training in insurance management. Some of them had on- the- job training while others attended workshops on community-based health insurance schemes. With the change to "big" schemes, the staff will require skills to be able to handle such large numbers of membership. For example, the small community-based scheme can no longer rely on two voluntary workers to manage the scheme. Alternatively, better-qualified staff may have to be employed and the current unqualified staff laid off. This will also lead to some dissatisfaction tendencies. The laid off staff will feel exploited, having been used to set up the schemes and now that the schemes have become recognized, they are asked to leave. Also if the government does not take up the payment of salaries of these staff, schemes' administrative expenses will increase.

One implication for the small community-based scheme is that it will have to admit members from outside the sub-district. This may "dilute" the solidarity that existed among the small group of members. Some members are not likely to be happy with admitting such outsiders.

Presently, all policy decisions are taken by the schemes. In the NHI, all policy decisions such as premium rates, benefit package and contribution mechanisms are determined by the National Health Insurance Council (NHIC). The schemes will also have to register with the

NHIC before they are recognized as legal entities. They will now have to seek permission or be directed to do things the way the NHI permits. Thus the schemes may have to implement policies that may not be appropriate to their local conditions. This feeling was expressed by most of the health insurance managers and technical advisers interviewed, "...they do not know our local problems here, some people have never held even five thousand cedis (US$ 0.55) in their life...how can they contribute the national premium rates?." Another one said, "... in our district, we may have to declare everybody poor, for the majority cannot pay... we should have been allowed to set our own premiums and benefit package....not all the disease conditions which were used to set the contribution rates exist here..." Thus these officers believe the schemes would be more efficient and effective if they were given the autonomy to decide on some or possibly all major issues.

The NHI anticipates deficits since premiums that will be collected at the district level will not be able to cater for all expenses. Also it is recognised that all districts do not have equal economic or financial strengths. Hence the risk equalisation and cross subsidisation funds (from general tax revenue) will be used to bring all districts to relatively level grounds and cater for their deficits. If the funds do not flow on schedule, schemes are likely to run out of funds in the course of their operational year. They may not be able to pay for the cost of health services for members and schemes are likely to collapse. A scheme manager from the mandatory scheme said "...if the NHI does not bring the money as promised, we are dead, members will not even believe that we don't have the money, ... and the hospitals have told us they will not continue to offer services if we don't pay them regularly..." One officer from the small community-based scheme said, "... we are not comfortable with government's

promise to bring us money, we can't trust politicians, they will push us into problems by promising the people, meanwhile they will not be on the ground to experience the pressure on us to meet the demands of the members even if we do not get the money.." One manager of the health care providers for the mandatory scheme during the key informant interview said, " we still remember what happened with the exemption funds disbursements, .. if this one also delays, we will stop offering services immediately..., how do we continue operation without our services being paid for?... we depend on our fees ..."

If the allocation of funds from the NHIC to schemes is not done equitably, some schemes may appear to be performing well (because they are better resourced) than others. This may lead to rivalry among schemes and some schemes branded as not doing well.

Efficiency

Efficiency in administration is likely to improve. This is because when many people join the scheme, some of the resources such as computers, printers and office space will not necessarily have to be increased. Thus the schemes are likely to enjoy economies of scale. Also public education and marketing can be done at the national level instead of each scheme doing its own activities. This is likely to reduce costs of operation.

However, appropriate strategies need to be adopted to reach all groups of people. For example, if education is done only on television, some rural population may not be aware of it. This is because many rural dwellers do not have television sets and even sometimes radio sets. Presently, all the schemes do physical visits to the communities to interact with them for

public education. A efficiency challenge with the NHIS will be to control health expenditure increases associated with fee-for-service reimbursement.

Equity: The NHI makes provisions to cater for those who cannot make contributions such as the poor, people less than seventeen years and the aged above seventy years. Therefore equity of financing is likely to improve. Thus the problem of finding a means to cater for these people who need help will be solved.

However, equity of delivery issues needs to be well addressed. The small scheme is in a rural district and is using health centres whilst the rest use hospitals. Members will make comparisons between the services they receive and what their counterparts in other schemes receive. This can create problems for the managers of the rural district scheme.

Members joining the three schemes generally make flat rate contributions (with the exception of the formal sector employees in the mandatory scheme). This was found to be regressive. In the NHI scheme, there are different contribution rates for people in different income levels within the informal sector. These are:

-Seventy-two thousand (72,000) cedis for low-income group

-one hundred and eighty thousand (180,000) cedis for the middle income group and

-four hundred and eighty thousand (480,000) cedis for the high-income group.

However, due to unavailability of data on levels of income in the informal sector, it will be difficult to classify people in that sector into the right categories. It is possible for high income people to be classified as low income earners and vice versa. In Ghana, it is a

common practice for people to present low-income statements in order to evade or pay less than required taxes. If this practice is repeated in the implementation of the NHI, it is likely that many Ghanaians in the informal sector will be wrongly classified (most probably into low income brackets) and pay wrong contribution rates. Thus, although the contribution schedule is progressively structured, the reality is likely to be a more regressive flat rate of 72,000 cedis for all families in the informal sector.

Since those in the formal sector's contributions will be deducted at source, they will be compelled to pay the right premiums. This is likely to lead to unfair contributions between the formal and the informal sectors.

Most importantly, in Ghana, the health facilities located in big towns are better resourced and therefore provide better quality services than those in the rural areas. Meanwhile, the contribution rates are regardless of where one lives. Thus those who stay in rural areas and receive less quality and quantity of health services pay the same rates as those in cities who get better services.

Also the government financial support to the three schemes was skewed in favour of the district schemes. These schemes were located in relatively economically stronger areas than the small scheme. In the NHI, if economic factors are not considered well, schemes that need government support most, (i.e. those in deprived areas) may not get it. This will compound the problem of unequal volume and quality of service different scheme members will receive.

CHAPTER FIVE

5.0 Conclusions and Recommendations

5.1 Introduction

In this chapter, a brief summary of the main findings of the study is given. Also an attempt is made to provide some recommendations, which hopefully can contribute to refining some of the mandatory health insurance scheme proposals in Ghana. Finally, a conclusion to the study is given with suggested areas for further research.

5.2 Conclusions

A key objective of this study was to determine the prospects and challenges for voluntary and mandatory Community-Based Health Insurance Schemes in Ghana in achieving sustainability, efficiency and equity. Findings on this and other issues were expected to help determine whether the policy of government to implement a universal mandatory health insurance scheme will be achieved.

5.2.1 Sustainability of Schemes

The financial positions of the schemes studied were reasonably strong. All schemes had favourable balances or surpluses. However, analysis of their sources of income indicates that the schemes depended much on external sources to fund all their activities, especially the start-up costs for the district schemes. Owing to the fact that these schemes are voluntary and fairly new, there is the likelihood of early registration of the highest risk people who will

need to use health services very often leading to high costs. Perhaps after operating for some time, when there will be no need to do intensive public education and capital investments, these schemes could be self-sustaining. Also with contributions from the formal sector combined with those of the informal sector, the schemes are likely to be more sustainable.

Part of the rationale for this study was that most of the government's resources for health will be directed towards the National Health Insurance when it starts and if many people do not join the NHI, it means government's resources will go to few people. Coverage of the schemes studied was generally low. The analysis indicated that the contribution mechanism contributed to the low coverage of schemes. It has been found that contribution per person instead of per family does not encourage high coverage. Other reasons given for low coverage of the schemes were poverty, poor health service quality and the fact that schemes' benefit packages do not include outpatient services. Most of those issues will be addressed by the design of the NHI.

The major source of income for insurance schemes is members' contribution which is a function of coverage. Thus, low coverage affects the level of funds that can be mobilized from premium collection. The contribution system in the NHI is per family, thus it is likely that coverage will be high in the NHI.

Health service providers expressed the fear of inability to cope with the workload likely to result from a sharp increase in utilisation when the National Health Insurance scheme is introduced, especially when OPD services are included in the benefit package. The present

insurance has led to an increase in in-patient service utilisation and since OPD services are more frequently used, it is expected that workload would increase at a higher rate. There is the need to have corresponding increases in resources especially human resources, which are dwindling in Ghana at the moment.

5.2.2 Efficiency

Administrative expenditures are high. Analysis of the expenditure structures reveals that initial set-up costs involving marketing and education, consultancy services as well as capital investments inflated costs.

Their administrative structures are simple and involve community participation, which is key to community programmes of this kind. Considering the sizes of target populations and expected coverage, the staffing levels are generally adequate and appropriate. However, if coverage continues to be low, there might be the need to reconsider the number of staff that schemes retain to contain personnel costs.

Although all schemes mentioned investing funds to increase incomes, the researcher found no proper records on investments and returns on investments. This is crucial considering the low levels of coverage and incomes. Efficiency of financial resource use could be enhanced through sound financial investments.

5.2.3 Equity

All members (except formal sector members in the mandatory scheme) of the schemes studied pay the same premium not withstanding socio-economic status and geographical location. This system does not provide for cross subsidisation between low and high-income earners. However, where the contribution rate is for an entire household, there is a subsidy between small and large families. There is no official provision made for the poor except when some philanthropists or donors come to their aid. This flat rate premium is regressive. There is a need to explore the possibility of increasing the solidarity basis of the scheme and making the premium contribution more progressive. Whatever system is adopted it should be technically feasible and socially acceptable.

In the National Health Insurance scheme provisions have been made to cover the poor but there have not been any criteria for identifying and declaring one poor. Also there are different contribution rates for people in different income levels. Thus when one falls within a particular category, he or she will pay the specified contribution rate, not withstanding his or her geographical location. Generally, in Ghana, the better resourced health facilities are located in the cities. Thus those in the rural areas will be paying the same contribution rates as their counterparts in the cities but will not have equal access to such good quality health services as their counterparts in the cities will get.

Also, there is generally a lack of data on levels of income in the informal sector in Ghana. It will be difficult to classify people in that sector into the right income categories and charge them the appropriate contribution rates. It is possible for especially the high income people to

be classified as low income earners and therefore pay less than the appropriate contribution rates.

However, contributions from workers in the formal sector will be deducted at source. Since their contribution rates are a percentage based on their income, they are likely to make fair contributions. Meanwhile, formal sector employees are distributed to all sectors and geographical areas (both in the cities and in the rural areas) of the country.

Most of the successful private businesses (informal workers) are located in the cities where the better-equipped health facilities are located. If the informal workers pay lower contributions and receive better health care than those in the formal sector who pay the right rates but are working in the rural areas, the system will not be fair to the formal sector workers.

5.3 Recommendations

From the findings of the study, the following recommendations are made.

5.3.1 Sustainability

i. An effective Public Education programme is recommended to be put in place. This should aim at educating people on the operations and benefits of schemes. This will complement the fact that membership to the schemes is going to be mandatory. It will encourage people to join.

ii. To increase membership and sustain schemes, it is suggested that implementation of schemes be accompanied by quality care by providers and good relations between providers and patients. Quality of care could be enhanced by the availability of drugs, medical supplies, equipment, necessary human resources and good staff /patient relationship.

iii. Small CBHIS should be assisted financially by Government to operate as they are now instead of being compelled to join district schemes. This is in line with the recommendation of the Scheme Design Task Team that provided guidelines for designing and implementing District wide MHO s in Ghana (MOH, 2004) and suggests that existing CBHIS could be sub-district level financial intermediaries for the District Health Insurance Schemes.

iv. It is recommended that a common computer software/programme be developed for capturing service provision and billing data. This will minimize problems health service providers face in compiling and submitting bills to insurance schemes. Also a means of verifying the information should be developed for schemes to speed up the reimbursement process.

5.3.2 Efficiency

ii. The usual referral system must be adhered to. Hospitals, especially tertiary hospitals should not be used as the first point of call, except in emergencies. They should be reserved as referral centres.

ii. It is recommended that alternative reimbursement mechanisms to fee-for-service be considered

5.3.3 Equity

i. Efficient administration of the cross subsidisation fund to minimize district income level and risk differences is recommended. To achieve this, the NHI should establish clear and evidence-based resource allocation and risk equalisation formula and adhere to them.

ii. It is recommended that a practical means testing mechanism to declare one poor in order to qualify for exemption from contributions should be adopted. Chiefs and other community leaders could be involved in identifying the very poor in their communities. Extensive research and consultation would be needed on this issue. The present design for the mandatory scheme to be implemented does not have such practical guidelines for means testing.

iii. Government, it is recommended, should improve services in health institutions in areas where residents find it difficult to get to urban facilities. This, it is hoped would improve on physical access and equity of service delivery.

5.4 Conclusion of Study

Over the last few years, people from all walks of life and some international bodies have been calling for alternative health care financing strategies. Health insurance has been the one mentioned most frequently.

Currently, community-based health insurance schemes are being suggested as appropriate for rural communities. Experiments are now underway in various African countries such as Ghana. District-based or community –based health insurance schemes are useful in situations where the financial cost of health care is a barrier to utilisation (Criel, 1998). However, the schemes themselves ought to be well designed to be efficient and sustainable to be able to continue to serve their purpose.

Results from this study indicate that the health insurance schemes operating in Ghana have helped in improving access to health care (mostly in-patient services) for the insured population. Evidence from the study goes further to suggest that schemes should be specially designed to incorporate measures that lead to sustainability, efficiency and equity. Including OPD services in the benefit package and quality improvements in health service promote acceptability to members hence, increasing membership rates which will eventually improve schemes' sustainability. This supports the view of Sikosana and others (1997) on the sustainability / viability of schemes as alternatives to financing health care.

Efficient and effective administration of the risk equalization fund will help reduce differences in districts' ability to raise revenue owing to different levels of economic activities as well as local morbidities. There is a need for further research on equity in access and means testing. This should come with solutions to identifying the very poor in the communities and to put in place workable and sustainable measures to tackle the financial barriers to health care they face.

Also there is a need for further research into the possibility of allowing CBHIS to act as financial intermediaries for the mandatory district schemes. The present design only allows them to operate as separate entities but would not get the Government's support.

The lessons drawn from experiences of existing schemes and the recommendations made in this study will hopefully contribute to the successful design and implementation of mandatory health insurance scheme in Ghana.

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APPENDIX 'A'

MANDATORY COMMUNITY BASED HEALTH INSURANCE SCHEME IN GHANA, PROSPECTS AND CHALLENGES

QUESTIONNAIRE FOR HEALTH INSURANCE MANAGERS

SECTION A

A) SCHEME'S DETAILS

1. District .....

2. Full name of Scheme .....

BEFORE INTRODUCTION OF MANDATORY HEALTH INSURANCE

3. What type of scheme was operating here?

a) Community –Based

b) District-Wide scheme

c) Other specify .....

4. Date on which the health insurance started operating .....

B) LEVEL OF FUNDING / EQUITY

5. Number enrolled in each year before 2003

YEAR	PRINCIPAL MEMBERS	DEPENDANTS	TOTAL ENROLLMENT
2000			
2001			
2002			
Total			

6a. Which people could join the scheme?

i) Anybody living in Ghana

ii) Anybody living in this District

iii) Other (specify) .....

6b. hat was the total population of your target group? .....

7. Complete **table A** if your premium is individually rated. Go to **table B** if your premium is family / household rated. Complete both if both apply to your scheme.
Fill in the space provided for flat rates if your scheme operates a flat rated premium system.
If the premium rates are based on income levels, please fill in the space provided for income related column and indicate the income ranges used to charge premiums in the spaces provided.

TABLE A INDIVIDULA PREMIUM RATES

Individual	Flat Rate 1	Income Range 1	Income Range 2	Income Range 3 ....
Monthly				
Quarterly				
Half Yearly				
Annually				
Other (specify)				

TABLE B

FAMILY / HOUSEHOLD PREMIUM RATES

Individual	Flat Rate	Income Range 1	Income Range 2	Income Range 3 ....
Monthly				
Quarterly				
Half Yearly				
Annually				
Other (specify)				

8. For family premium, how many people did it cover and what was the age limit for dependants?

Number of Family members ..... Age limit .....

9. What are your other sources of income?

i) .....

ii) .....

iii) .....

iv) .....

10. What was the benefit package of the Health Insurance Scheme? (Types of services offered by the scheme to members)

i) .....

ii) .....

iii) .....

iv) .....

11. Which health institutions were your providers?

i) .....

ii) .....

iii) .....

iv) .....

12. Did you negotiate with providers on fee levels? Yes ..... No .....

13. Did you negotiate for a payment mechanism? Yes ..... No .....

14. What was your payment mechanism?

i) Fee for service
ii) Capitation
iii) Case Payment
iv) Diagnosis Related Group
v) Daily Rate
vi) Other (specify) .....

15. Did you have a Gate keeping system? (Were members who needed care required to seek care from the lower levels (e.g. health center) before getting to higher levels (e.g. District Hospitals)?

Yes ..... No .....

16. Did you have a co-payment system in place?

Yes ..... No ..... (If no, skip to question 18)

17. If yes in question 16, what type of co-payment system was in place?

i). Percentage of cost (what percentage .....)

ii). Below certain minimum cost (below ¢.....)

iii). Above certain maximum cost (above ¢ .....)

iv) First few days of Hospital admission (first .....days)

vi). Beyond certain number of days of admission (beyond .....days)

vii) Other (specify) .....

18. Were the poor granted any exemption?

Yes ..... No ..... **(If no, skip to question 20)**

19. If yes, what type of exemption?

i) Full Exemption
ii) Subsidized Premium
iii) Other (specify) .....

20. If No to question 18, were the poor simply excluded from the scheme? **(if Yes to question 18, skip to question 22)**

Yes ..... No.....

21. If No to question 20, who paid for the poor?

i). .....

ii) .....

iii) .....

22. How were the poor identified?

.....

.....

.....

.....

EFFICIENCY AND SUSTAINABILITY

E) MANAGEMENT AND OPERATIONS

23. Briefly describe your management structure

.....

.....

.....

.....

.....

24. What role did Community representatives play in the scheme's management?

.....

.....

.....

25. What was the relationship between the scheme's staff and the Community Leaders?

.....

.....

.....

26. What were your total staff and positions? Total staff .....

No.	Position	No. of staff
1		
2		
3		
4		
5		

F). FUNDS MOBILISATION AND EXPENDITURE

27. What are your total funds mobilized from all sources including donations?

YEAR	Premium /Dues	Government (Local and Central)	DONATIONS	Total
2000				
2001				
2002				

EXPENDITURE

YEAR	ADMIN. cost	O.P.D. Service payments	Inpatient service payments	Referrals	Total payments
2000					
2001					
2002					

G) ACHIEVEMENTS

28. What are some of the main achievements of the health insurance in your community / district?

i.....

ii.....

iii.....

iv.....

H) CHALLENGES

29. What were the challenges /problems of the scheme?

i. .....

ii .....

iii. .....

30. What are the possible solutions to the problems you have mentioned in question 29?

i. .....

ii .....

iii .....

iv .....

I. MANDATORY COMMUNITY HEALTH INSURANCE ERA

31. When did you change to the Government health insurance scheme?

.....

32. Describe the general process of changing from the old to the new Scheme

. .....

.....

. .....

. .....

33. Did you face any problems in the process of changing to government scheme?

Yes ..... No. ..... **(if No, skip to question 36)**

34. If yes, what are some of these problems?

i. .....

ii .....

iii .....

iv. .....

35. How do you think the process of change could have been managed to minimize or avoid these problems?

i .....

ii.....

iii.....

iv.....

36. What benefits have your scheme got or is likely to get from this change?

i. .....

ii. .....

iii .....

iv. .....

37. What have been some of the impacts of the change to government scheme on the operations of your scheme?

i.....

ii.....

iii.....

iv .....

J). ENROLLMENT IN THE MANDATORY SCHEME ERA

YEAR	PRINCIPAL MEMBERS	DEPENDANTS	TOTAL ENROLLMENT
2003			
2004			
Total			

38. INCOME

YEAR	PREMIUM	GOVERNMENT	DONORS	OTHER	Total
2003					
2004					

EXPENDITURE

YEAR	ADMIN. COST	O.P.D. SERVICE COST	INPATIENT SERVICE COST	TOTAL
2003				
2004				

39. Has there been any changes in your benefits package? Yes ..... No .....

(if No. skip to question 41)

40. If yes, please indicate the changes?

i.....

ii.....

iii.....

41. Are the providers in your area accredited yet?

Yes ..... No .....

42. Did you negotiate on fee schedules and payment mechanisms with your providers?

Yes ..... No .....

43. How is the Community Represented in the new management structure?

.....

.....

.....

.....

.....

44. Briefly describe your management structure if there has been any change from the previous one?

.....

.....

.....

THANK YOU

APPENDIX 'B'

MANDATORY COMMUNITY – BASED HEALTH INSURANCE SHCEME IN GHANA, PROSPECTS AND CHALLENGES

A GUIDE FOR FOCUS GROUP DISCUSSION WITH SCHEME AND COMMUNITY MEMBERS, PROVIDERS AND OPINIION LEADERS

1. Are you members of the scheme?
2. How long has the scheme been operating in your community?
3. Before changing, what were the advantages of belonging to the scheme?
4. What were the main problems of the scheme?
5. After changing to Government scheme, do you still have some of these problems?
6. Are there any new problems you think have come about because of the change?
7. What improvements has the change brought?
8. Do you think that everyone in the District will join the scheme? Why? Why not?
9. Do you think the poor should be able to join the scheme without paying? If not, why not? If yes, how should the poor be identified?
10. What would you like to be added to scheme's operations and benefits either by Government of members?
11. What would you like to be eliminated from the scheme's operations?

THANK YOU

Appendix 'C'

INTERVIEWEE'S CONSENT FORM

PART A

Hello, I am William Sabi, a student of the University of Cape Town, South Africa. I am conducting a research on Mandatory Community Based Health Insurance Scheme in Ghana.

The study forms part of my dissertation for a master's degree, but will also help policy makers in designing this kind of health insurance in Ghana.
If you are willing, I would like to have a short interview with you on the community based health insurance. This should not take more than an hour of your time.
All information obtained from you will be kept confidential. Your participation is completely voluntary.

PART B

The purpose of this study has been explained to me satisfactorily. I understand it and I agree to participate in the study.

Name of interviewee: .....

Signature: .....

Date: .....