

Working Paper

**Maternity Protection and Health
Insurance in Africa**

**Comparative Overview of
Ghana, Kenya, Rwanda, and
Tanzania**

**International Labour Office
Social Security Department
Geneva, September 2009**

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EXECUTIVE SUMMARY

Health insurance is relatively new in all four countries. Ghana has the most extensive formal health insurance enrolment (47%) compared with 36.6% in Rwanda, 25% in Kenya and 14.5% in Tanzania. Rwanda has the most elaborate Community-based Mutual Health Insurance program. Tanzania covers some transportation costs for maternity, and Rwanda has experimented with inclusion of emergency transportation services.

Although exemptions and fee waivers for common maternal care (i.e., ante- and post-natal care, and simple delivery) exist in all the schemes, inconsistencies and ambiguities and poor knowledge of the system of waivers and exemptions frequently result in payment of official and unofficial fees.

Catastrophic maternal payments are common. In Ghana, sometimes mothers or their new born children are detained for nonpayment. In Kenya and Ghana, many households are compelled to sell assets to pay for care. Kenya's hidden fees inflate user costs but Rwanda has clear and unambiguous co-payments.

Ghana has the best maternal care indicators of the four countries. It has the lowest median months pregnant at first visit to an antenatal care facility; 84.3% of pregnant mothers satisfy the WHO recommended 4-5 antenatal care visits per pregnancy compared to 13.3% in Rwanda or 52.3% in Kenya. In Ghana, 47% of births are attended by a trained professional compared to 46% in Tanzania, 42% in Kenya and 38.6% in Rwanda. Ghana also has the highest rate of postnatal care while Rwanda has the lowest.

Policy Recommendations

Educate people on their entitlements, waivers, and exemptions in health care. There were instances, particularly in Kenya, where the women seeking help and even the healthcare providers, knew very little about the prevailing exemptions and fee waiver systems.

Intensify public educational campaigns on benefits of social health insurance schemes. Stress that they broaden the fiscal space of healthcare financing for the government. Premiums, not only improve healthcare services for all, but also help target public funds to the healthcare needs of the poor.

Implement monitoring mechanisms to eliminate hidden fees and informal payments to make the health care more affordable to the poor. For example, Kenya's failure to maintain a centralized fee-setting structure has provided an opportunity for health facilities to levy charges on services that are free by national policy (Sharma et al., 2005).

Extend insurance benefits to cover delivery complications and neonatal intensive care. There is no need to cover the routine delivery for which even the poor can manage to pay,

and not cover complications which are real emergencies, and consequently uncertain, and the reason to obtain health insurance. It is inhumane to hold an infant captive due to poverty of their parents.

Suggestions for Future Research

Develop more effective indicators for maternal mortality to permit a more accurate assessment of progress towards achieving MDG 5.

Explore the role of national, social and community-based insurance in improving access to and quality of maternal health services.

Determine more accurately the cost of maternal care. Accurate cost estimates are important for planning and to gauge the relative impact of out of pocket expenditure for maternal care.

Develop effective methods of providing emergency delivery services in sparsely populated rural areas to reduce delays in getting emergency care.

Conclusion

Maternal mortality is inextricably linked to the health care system and cannot be improved in isolation from the context of health care. National health insurance schemes, by making maternal health care economically accessible and reducing catastrophic payments for delivery complications, can help to reduce maternal mortality, but insurance schemes alone, without the supporting health infrastructure including emergency transport and geographically accessible health facilities staffed by qualified personnel, is unable to reduce maternal mortality for those who need it most—poor rural women. Nevertheless, health insurance schemes lead to extended fiscal space for the health systems. Premiums/contributions collected can be used for quality improvements of services and/or better targeting of public funds to the poor.

1. Introduction

To achieve universal healthcare coverage, with adequate financial protection against the uncertainties of illness, many countries finance their healthcare systems through general taxation or some form of health insurance. With the latter, individuals and families contribute to risk-pooling mechanisms that guarantee partial or full financial reimbursement of their healthcare cost (Donaldson and Gerard, 1993). Despite their long-standing history in the West, and even in parts of Latin America (McIntyre, 1997), formal health insurance programs emerged only recently among Sub-Saharan African countries. Many governments in the sub-region see health insurance—especially the social brand—as an effective way to increase revenue, enhance resource allocation and efficiency in the health sector, and to reduce the financial barriers to health care, especially among their poor citizens (Sikosana *et al.*, 1997). For example Ghana, Kenya, Rwanda, Tanzania, Senegal, and Nigeria, are using various health insurance schemes to improve healthcare access for their citizens. These programs seek to provide effective access to adequate and affordable health care to ensure that out-of-pocket (OOP) expenses do not limit access or quality of health services. Implementing such national health insurance schemes should have positive social and economic impacts, due to the close links between health, poverty, labor, economy, and development. Yet, a serious study examining the impacts of maternal health protection through the implementation of national health insurance schemes in African countries remains to be done. It is this research gap that the current study seeks to fill.

The objective of the present ILO-sponsored study is to examine the social health protections for maternal health and compare outputs regarding benefits/services, cost, and health impacts among four sub-Saharan African countries: *Ghana, Kenya, Rwanda, and Tanzania*. More specifically, the study addresses the following issues:

1. The main features (in terms of funding, premiums, coverage, exemptions, and administration etc.) of the existing health insurance schemes in the selected African countries, with special reference to the maternal protections they offer.
2. The socioeconomic and health burdens of pregnancy and delivery on the well-being of women, children, and households in the selected African countries, paying particular attention to the extent of financial catastrophe related to pregnancy and delivery at the household level.
3. The social, economic, and health benefits of maternal protection under the various health insurance schemes, drawing out the relationships between maternal protection, on the one hand, and maternal care and health outcomes on the other.
4. The knowledge gaps, resultant lessons, and policy implications of our findings, highlighting the main inter- and intra-national differences and similarities in best practices among the various insurance schemes.

Incipient and long-standing social health insurance programs exist in such northern African countries as Egypt and Tunisia, but we limit our analysis to Sub-Saharan Africa where maternal and child health problems are far more acute. The four countries selected

span the wide range and mix of health insurance programs – from volunteer, community-based health insurance (as in Rwanda) to nationally-organized social health insurance (as in Tanzania). By providing in-depth comparative analysis of the insurance programs and especially their maternity protections in these carefully chosen countries, we seek to provide useful prescience that will guide policy for improving maternal and child health outcomes. For each country, we provide a detailed description of the major health insurance programs, available health care systems including its geographic distribution and fee mechanisms, and maternal and child health outcomes.

The focus on maternal protection here is deliberate. Maternal and child health and socioeconomic development remain inextricably linked in Sub-Saharan Africa. Thus, safe maternity remains a vital component of the ILO's long-standing advocacy for decent work. Moreover, Millennium Development Goal #5 seeks to reduce maternal mortality rate by three-quarters by the year 2015. This initiative has reinvigorated global and continental interest in strengthening healthcare systems to reduce maternal mortality and other health problems in Africa. Finally, the high-profile declarations at the recent G8 Summit in Heiligendamm, Germany and at the Abuja Health Summit of 2001 attest to the priority of maternal health improvement.

To accomplish our research objectives, we rely mostly on the review of available literature and analysis of data from a variety of sources, including the Demographic and Health Surveys (DHS), and other data published by reliable national and international organizations such as WHO, ILO, the World Bank, and the UN. Since confounding variables and data constraints make it impossible to establish a direct causal link between health insurance schemes and maternal health outcomes, our goal is to approximate this as closely as possible. We premise our analysis on the assumption that better maternal care, measured by outcomes such as the percentage of births attended by trained professionals and use of prenatal care will result from better access to care through improved financing by way of social insurance schemes. The significant impacts of location and transportation costs on health care access are given special attention in this study, with conscious efforts to highlight rural-urban disparities in maternity care, cost, protection, and access.

This timely study of maternal protection under health insurance schemes in Africa would be of immense value to policy-makers, as they develop national programs to improve the healthcare, and, ultimately, the well-being of their citizenry. The study will also provide useful insights into the extent to which the four African countries, in particular, are meeting their international health-related obligations/expectations, such as the Health MDGs and ILO Convention 102.

2. Theoretical Framework

2.1. Determinants of Vulnerability to Maternal Mortality

A vulnerability theoretical framework is employed in this study. It posits that adverse life circumstances such as disease and death through complications of childbirth do not affect social groups uniformly. Rather, those who are least able to protect themselves due to

lack of the necessary resources needed for protection, such as the poor, are most likely to suffer such adverse events. The processes that make some rather than others more likely to face maternal death define vulnerability. In reality, childbirth is probably the most serious, complicated and life-threatening experience that most women will face in their lifetime. In healthy women and in the right environment, however, childbirth should be a normal, uncomplicated experience. Maternal deaths are substantially reduced when births are attended by trained health professionals, in an aseptic environment, where maternal and fetal complications are identified quickly, and transferred to appropriate facilities in a timely manner (Robinson and Wharrad, 2001). Consequently, timely emergency interventions for labor complications avert maternal deaths. In developed countries where women can count on skilled attendance and emergency obstetric care at delivery, maternal death is rare. Women lacking access to emergency obstetric care services may experience obstructed labor, uterine rupture, sepsis and death. Some survivors suffer severe injuries and complications including fistula, infertility, chronic pelvic inflammatory disease and nerve damage. Thus, increased access to quality health care, including antenatal care and skilled birth attendance, reduces vulnerability to maternal morbidity and mortality (UNFPA and University of Aberdeen, 2004).

Costs of health care and travel, distance from health facilities, and difficulty of finding transportation limit the use of maternal health services, and delay health-seeking behaviors. For example, antenatal care permits early detection and care for high risk pregnancies, although many obstetric complications are neither predictable nor preventable (UNFPA and University of Aberdeen, 2004). Lack of access to antenatal care whether due to cost, geographic access, or health policy reduces the chances of identifying and treating risky pregnancies and averting birth complications and maternal mortality. Remote rural residents are less likely to access antenatal care, more likely to develop birth complications, and less likely to reach quality emergency care in a timely manner. Similarly, where user fees are charged, poor women are more likely to be in the same situation of increased vulnerability. Delays in reaching health facilities are almost inevitable for pregnant women in rural areas of Africa. When complications occur, unless transport is found to reach a facility providing essential obstetric care promptly, morbidity and loss of life are common outcomes. Consequently, the timing of medical interventions in cases of obstetric emergencies is decisive in preventing maternal and neonatal death and disability. Although patient movement has not formed a central focus of studies on birth outcomes, mobility and transport are important determinants of vulnerability to maternal and neonatal disability, morbidity and mortality (Molesworth, 2006; Cham, Sundby and Vangen, 2005).

The “*three delays*” model (Thaddeus and Maine, 1994) captures some components of vulnerability to maternal mortality by proposing that pregnancy-related mortality is overwhelmingly due to delays in: (1) deciding to seek appropriate medical help for an obstetric emergency; (2) reaching an appropriate obstetric facility; and (3) receiving adequate care when a facility is reached. National policies regarding user fees, the geographic distribution of health facilities and the quality of care are critically influential. Also travel costs and inadequate transport infrastructure, combined with poverty and

distance from health facilities implicitly affect the decision to seek medical care, arrival at a health facility, and finally receiving timely and appropriate care.

The model however ignores how cultural factors including household, community, and gender politics affect women's autonomy and their decisions regarding reproduction, health facility use, and birth outcomes. The health status of a woman affects the likelihood of pregnancy complications and her ability to survive them, but health status itself depends on a wide range of factors including poverty. For example, anemia may result from lack of money to buy nutritious food, or limited access to health services that treat anemia. Access to health services depends on whether adequate facilities exist (e.g. adequate supplies and personnel, good quality of care), physical access (if people can reach the available services) and economic access (whether they can afford the services). Maternal mortality is almost always higher among the poor and disadvantaged than among the wealthy.

In summary, poor women in rural areas, lacking access to quality and timely maternal health care, are more vulnerable to dying from maternal complications than rich women living in urban areas with more accessible health facilities. Similarly, due to cost of health care, women who lack health insurance are more likely to delay seeking care, develop obstetric complications and die. Thus, programs that empower women to have a positive delivery experience, such as national health insurance schemes, are needed if maternal mortality is to be reduced. Empowerment is the antithesis of vulnerability.

2.2. Measuring Maternal Mortality

Although reducing maternal mortality is a Millennium Development Goal (MDG), due to measurement difficulties, reliable estimates of maternal mortality are rare. Indeed, under-reporting and misclassification remain a problem in estimates of maternal mortality (WHO, UNICEF, and UNFPA, 2004).

The Tenth Revision of the International Classification of Diseases (ICD-10) defines a maternal death as the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes. Because modern life-sustaining procedures and technologies can prolong dying and delay death, which makes the 42-day limit somewhat arbitrary, ICD-10 introduced *late maternal death*, which is defined as the *death of a woman from direct or indirect obstetric causes more than 42 days but less than one year after termination of pregnancy*.

According to ICD-10, two groups of maternal deaths may be identified: (a). *Direct obstetric deaths* resulting from obstetric complications of the pregnant state (pregnancy, labor and the puerperium – approximately six weeks after birth), from interventions, omissions, incorrect treatment, or other events resulting from any of the above; and (b) *Indirect obstetric deaths* resulting from previous existing disease or disease that

developed during pregnancy and which was not due to direct obstetric causes, but was aggravated by physiologic effects of pregnancy. A limitation of this definition is that maternal deaths are not usually amenable to such fine classification, as the precise cause of death might be unknown. To permit the identification of maternal deaths in circumstances where cause of death is unknown, ICD-10 defines *pregnancy-related death* as: *the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the cause of death.*

Practically then, maternal deaths can be identified based on medical cause of death and the timing of death relative to pregnancy. This has important implications for the approaches to measurement. Three distinct measures of maternal mortality are commonly used: *the maternal mortality ratio*, *the maternal mortality rate*, and *the lifetime risk of maternal death*. Maternal mortality ratio (MMR), the most common measure, is the number of maternal deaths during a given time period per 100,000 live births during the same time period. This is a measure of the risk of death once a woman has become pregnant. Maternal mortality rate is the number of maternal deaths in a given period per 100,000 women of reproductive age during the same time period. This measures the frequency with which women are exposed to death through fertility. Lifetime risk of maternal death considers both the probability of becoming pregnant and the probability of dying as a result of that pregnancy cumulated across a woman's reproductive years. In theory, the lifetime risk is a cohort measure, but it is usually calculated with period measures for practical reasons.

2.2.1. Differences between DHS and WHO/UNICEF/UNFPA estimates of MMR

Maternal mortality is difficult to measure because it requires information about deaths among women of reproductive age, pregnancy status at or near the time of death, and the medical cause of death. All three components can be difficult to measure accurately, particularly in absence of a comprehensive vital registration system or accurate medical certification of cause of death. Consequently, all existing estimates of maternal mortality have varying degrees of uncertainty. When reliable vital registration systems are lacking, maternal mortality estimates are based on household surveys, usually using the direct or indirect sisterhood methods, which are not only imprecise due to sample size considerations, but are also based on a reference point some time in the past, at a minimum six years prior to the survey. While a direct critique of the different approaches for measuring MMR is beyond the scope of this work, it is important to state that household surveys using direct estimation are expensive and complex to implement and require large samples. Similarly, the direct sisterhood method, the approach used by the Demographic and Health Surveys (DHS), requires large sample sizes, has wide confidence intervals, and is unsuitable for monitoring short-term changes in maternal mortality (Stanton, Abderrahim and Hill, 2000; WHO, UNICEF, and UNFPA, 2004).

To surmount these limitations, WHO, UNICEF and UNFPA have developed estimates of maternal mortality primarily with the information needs of countries with no or incomplete data on maternal mortality in mind, and also as a way of adjusting for underreporting and misclassification in data for other countries (WHO, UNICEF, and UNFPA, 2004). The approach adjusts existing country information to account for problems of underreporting and misclassification and uses a simple statistical model to generate estimates for countries without reliable data. MMR estimates from the WHO/UNICEF/UNFPA are usually higher than the DHS (Table 1), because the latter tends to underestimate overall maternal mortality (Stanton, Abderrahim and Hill, 2000). Despite these efforts, robust measures of maternal mortality remain elusive. For example, UNICEF, UNFPA and WHO warn against comparing their 2000 estimates with those for 1990 in order to draw conclusions about trends (WHO, UNICEF, and UNFPA, 2004). Without a robust estimate for MMR measuring progress in MDG 5 remains impractical (Abouzahr and Wardlaw, 2001).

Table 1: Maternal Mortality Estimates by DHS and WHO/UNICEF/UNFPA

Country	DHS			WHO/UNICEF/UNFPA		
	Year	Estimate	Confidence Interval	Year	Estimate	Uncertainty Range
Ghana						
	1990			1990	740	
	1998			1995	590	234 - 1177
	2003	214		2000	540	140 - 1000
Kenya						
	1990			1990	650	
	1995	590		1995	1300	1024 - 1650
	2003	414		2000	1000	580 - 1400
Rwanda						
	1990			1990	1300	
	1995-1999	1071		1995	2300	977 - 4171
	2000-2004	750		2000	1400	790 - 2000
Tanzania						
	1990			1990	770	
	1999	529		1995	1100	802 - 1316
	1995-2004	578	466 – 690	2000	1500	910 - 2200

2.3.2 Skilled Birth Attendance and Other Measures

Another indicator for assessing progress in reducing maternal mortality is the percentage of births with a skilled attendant. It avoids the wide margins of error and other limitations associated with maternal mortality ratio and other measures. As a process indicator, it is

sensitive and widely available through Demographic and Health Surveys; but a major challenge in measuring and interpreting the indicator is determining who counts as a skilled attendant. While efforts have been made to standardize the definitions of doctors, nurses, midwives and auxiliary midwives used in DHS and other surveys, many attendants who are described as “skilled” would probably not meet the internationally accepted criteria (WHO 2004). In addition, a functioning health system has been identified as another key for reducing maternal mortality. Yet, the skilled attendant indicator provides no information regarding whether deliveries occur in a safe, clean environment where emergency obstetric care is readily available. Moreover, the indicator conceals disparities among regions, socioeconomic, and ethnic groups. Additional research is required to identify gaps in calculating and interpreting the skilled attendant indicator and develop more accurate mechanisms for its measurement.

The percent of women using antenatal facilities has also been used as a measure for assessing improvements in maternal deaths, but the research evidence on the effectiveness of antenatal care on reducing maternal health is inconclusive. According to WHO, to be effective, antenatal care must be sought early, continue throughout the pregnancy, and must comprise at least four regular visits. In poor rural areas, these standards may be unattainable. McDonagh (1996) argues that there is insufficient evidence to reach a firm decision about the effectiveness of antenatal care, yet there is sufficient evidence to cast doubt on the possible effect of antenatal care. Antenatal care is critical for detecting risky pregnancies and obtaining help to prevent obstetric complications. However, Carroli, Rooney and Villar (2001) suggest that some antenatal interventions have proven effectiveness, others are promising, and some may be ineffective. Consequently they advocate research that identifies a package of proven and effective antenatal procedures.

In light of the shortcomings of the different indicators for assessing MMR, multiple indicators are needed to gauge progress more accurately. There appears to be consensus that skilled birth attendance and the prevention and treatment of obstetric hemorrhage are the critical ingredients for reducing and eliminating maternal mortality (Costello et al., 2007; Ronsmans and Graham, 2006; UNFPA 2004). By removing cost as an impediment to quality obstetric care, National Health Insurance schemes contribute towards the grand goal of MDG 5 – reduced maternal mortality.

3. Maternal Mortality in Africa

The WHO estimates the number of maternal deaths in 2000 for the world was 529,000 with an MMR of 400 per 100,000 live births. By region, the MMR was highest in Africa (830), followed by Asia (330), Oceania (240), Latin America and the Caribbean (190), and the developed countries (20). The highest MMRs of 1,000 or greater, are, in order of magnitude, Sierra Leone (2,000), Afghanistan (1,900), Malawi (1,800), Angola (1,700), Niger (1,600), the United Republic of Tanzania (1,500), Rwanda (1,400), Mali (1,200), Central African Republic, Chad, Guinea-Bissau, Somalia and Zimbabwe (1,100 each), and Burkina Faso, Burundi, Kenya, Mauritania and Mozambique (1,000 each).

Maternal mortality rates in Africa are excessive and alarming. Forty-seven percent of global maternal mortality occurs in African countries (Mohana, 2005), and according to the World Health Organization (WHO), the MMR in 2000 was 1,100 for Sub-Saharan Africa compared to less than 100 for the more developed countries. In fact, no other health indicator depicts the difference between developed and developing countries as accurately as MMR (WHO Commission on Macroeconomics and Health, 2002). Within the Africa region itself, significant geographic variations in MMR exist. In 2000, the estimated MMR per 100,000 live births were: 1,060 for East Africa, 1,020 for West Africa, 950 for Central Africa, 340 for Northern Africa and 260 for Southern Africa (WHO, 2001). Among other factors, serious deficiencies in the existing health services have been blamed for the problem (WHO, 2001). For example, an estimated 85% of all maternal deaths in Africa result directly from complications arising during pregnancy or delivery (Abdoulaye, 2006), and are therefore preventable.

Lack of affordable, high-quality healthcare is a major factor contributing to Africa's high maternal mortality. Until recently, the only method of health care finance in most African countries was the "cash-and-carry" system, which is seen by many observers to be highly regressive, with detrimental consequences particularly for the poor. Due to cost, many pregnant women delay seeking healthcare until their conditions deteriorate to the point where treatments become too expensive or too late. For example, the poor are more likely to opt for home deliveries without skilled birth attendants, which typically result in poor birth outcomes. Because most Africans do not have access to insurance coverage at the time of illness (Preker, 2004), they face heavy out of pocket payments and a high risk of household impoverishment through catastrophic cost (WHO 2001).

4. Health Insurance in Africa

Besides the purchase of auto insurance (which is generally mandatory and actively enforced), formalized insurance—be it for property, residential, life, disability, or funeral—is quite uncommon in Africa. As well, formal health insurance is only now appearing in many African countries. Traditionally, Africans relied on informal, kinship and other communal networks and associations for mutual support and solidarity during illness, bereavement, and other contingencies. Similarly, the variety of arrangements among the incipient health insurance programs across Africa is complex. For analytical purposes, we group the health insurance schemes under two broad categories: *voluntary* and *mandatory*. Typically, mandatory insurance covers formal sector employees such as the case in the Kenya Hospital Insurance Fund, but voluntary membership is by choice. Mandatory and voluntary health insurance programs may be commercial or not-for profit. While commercial schemes are usually expensive and risk-rated, non-profit schemes are based on ability to pay, and have a relatively restricted package of benefits due to their more limited resource base (Nitayarumphong and Mills, 1998). Commercial health insurance schemes are less popular across Africa perhaps due to the difficult economic circumstances of most people.

Social Health Insurance, which normally combines features of both the voluntary and mandatory schemes, is gaining currency across Africa. Typically, it begins as a mandatory earnings-based risk-pooling mechanism for formal sector workers, managed by a government agency or other autonomous body (Bachmann, 1994). Subsequently, such schemes are extended to cover non-formal sector workers such as farmers and self-employed people, but such extension invariably requires effective means of premium collection, since it is more complex and difficult to capture members of the informal sector. Perhaps the most striking feature of Social Health Insurance programs is their emphasis on social solidarity, entailing an explicit cross-subsidization of lower income members by the relatively well-to-do, and of the ill by the healthy (Hasio, 1996)—an arrangement that fits well with the endemic communalism of Africa's traditional culture. By allowing enrollees to contribute on the basis of their ability to pay and by pooling low- and high-risk people together, this system of insurance usually eschews adverse selection. Social Health Insurance schemes are commonly called National Health Insurance Schemes (NHIS) when they seek to assume national coverage, as in the case of Ghana.

Other forms of social health insurance programs come under the general rubric of Community-Based Health Insurance (CBHI). Like other social health insurance schemes, CBHI is couched in social solidarity and risk-sharing (Atim, 1998). But, unlike the NHIS, CBHIs tend to focus more on those who work in the informal economy, and limit their coverage to a particular community, or geographic region. Typically, CBHIs are community-owned and managed by autonomous, not-for-profit, community health organizations. A fairly similar, and a relatively more recent, brand of insurance is the Mutual Health Insurance (MHI) organization, often established (either solely or partly) by an external organization, such as a hospital, a donor organization, an NGO, or a church, to assist a group of people having difficulties in accessing health care. Like the Community-based schemes the MHI organizations tend to focus on people in the informal sector, and while most are managed by autonomous community solidarity groups and NGOs, some may be managed by the central government organization together with local officials (Sabi, 2005). Since most Mutual Health Insurance organizations are community-based, or emerged out of older community-based programs, the two terms 'Community-based Health Insurance' and 'Mutual Health Insurance' are often used interchangeably (Diop and Butera, 2005; Schmidt, Mayindo and Kalk, 2006).

4. 1. The Evolution of Health Insurance Schemes in Africa

The dominant politico-economic ideology of most African governments in the immediate post-independence era was socialism, with high doses of protectionism and government involvement in key sectors of the emerging economies. Examples include Nkrumah's Ghana, Nyerere's Tanzania and Kenya under Jomo Kenyatta. Healthcare in such countries was 'free' and publicly-funded, with virtually no out-of-pocket payment. Amidst rapid population growth and economic decline, this system quickly became unsustainable (Criel, 1998). In the 1970s, during the OPEC oil crisis, when the global

economy almost ground halt, most African governments were compelled to reduce their budget allocations to social services, including health.

In the 1980s, most African countries were teetering towards socioeconomic collapse, as a result of a volatile mixture of internal and external factors, including economic mismanagement, corruption, political instability, ethnic conflicts, drought, unfair terms of trade, and high oil prices, among many others (Konadu-Agyemang, 2001). Consequently, many African countries sought financial assistance, in the form of loans and grants, from international financial institutions such as the World Bank and the IMF. As a major funding conditionality, African governments were compelled to switch from their socialist-based development policies toward open-market reforms under the Structural Adjustment Programs (SAP) imposed by the World Bank and IMF (Mensah, 2006).

A major component of SAP was the removal of government subsidies and imposition of some form of user-fees for healthcare by the early 1990s. Suddenly, out-of-pocket payment for health care services, which used to be the exception in the early post-independence years in Africa, became the rule (Vandemoortele *et al* 1997).

Despite the shift towards free-enterprise under SAPs, African economies continued to perform poorly in the 1990s, and poverty, malnutrition, high infant and maternal mortality persisted widely across the continent. Criticism of World Bank-IMF policies, particularly SAPs proliferated, not only from African intellectuals, policy makers, and social resistance movements, but, indeed, from conscientious individuals and groups all over the world. UNICEF called for *adjustment with a human face*; the ILO advocated decent work arrangements under SAPs. Similarly, the UN, G8, the African Union, WHO, and many other international organizations intensified their advocacy for increased funding for healthcare systems in Africa, in general, and the reduction of maternal mortality in particular. It is against the backdrop of these continental and international calls that health insurance, especially the social brand, is gaining currency in Africa. As we shall soon see in the specific cases of Ghana, Kenya, Tanzania, and Rwanda, African countries are now moving towards comprehensive, social health insurance regimes, which combine private and public-funding arrangements in creative, socially- and culturally-sensitive ways.

5. The Case of Tanzania

5.1. The Health Care System and its Financing

As recently as the early 1990s, health services in Tanzania were provided primarily by the State. With its *Arusha Declaration* of 1967, the government, among many other patently socialist initiatives, sought to make social services, in general and education and health services, in particular, more equitable for all Tanzanians regardless of gender, geographic location, and socioeconomic status (Ofcansky, 1997; Khan *et al.*, 2005). To redress the usual urban bias in health care services, the government developed a broad-based, grassroots-controlled network of health centers and dispensaries in rural communities across the country. It is estimated that by 1992, 55% of the total hospital beds, 98% of health center beds, and 78% of all dispensaries in the country were government-run. The remainder was run by faith-based organizations, NGOs, and other private agencies and individuals. Even more impressive, nearly 70% of the Tanzanian population lived within 5 km of a health facility by 1992, and 90% lived within a 10-km radius of such facilities (Humba, 2005).

The economic crisis of the 1980s made it difficult for the government of Tanzania, to maintain its commitment to ‘free’ health care, and shortages of medical personnel, supplies, equipment, and drugs became prevalent. As the nation’s financial resources and even donor assistance dwindled through the 1980s, the government was forced to abandon its economic controls and promote the active participation of the private sector in the national economy. In 1986, under the new leadership of President Mwinyi, Tanzania adopted the IMF- and World Bank-sponsored structural adjustment package, locally dubbed the Economic Reform (ERP I). Tanzania’s adjustment package required trade liberalization, privatization, and gradual removal of government subsidies on various social services, including health.

Despite these economic shifts, the private sector was not allowed to operate in the health sector until the early 1990s¹, following the introduction of the Tanzanian Health Sector Reform (HSR) program in 1993. With the HSR, Tanzania sought to improve the provision of health care, which had by then deteriorated to the point of virtual collapse. Among other initiatives, the HSR introduced user-fees in the health sector; instituted a national Drug Revolving Fund to assist ordinary Tanzanians to purchase drugs at a reduced price; established Community Health Funds at the district and local levels; and empowered local councils and communities to supervise health care providers in their localities with the formation of District Health Management Committees in hospitals, health centers, and dispensaries.

5.2. Health Insurance Schemes in Tanzania

5.2.1. The National Health Insurance

The Health Sector Reforms culminated in the creation of the Tanzanian National Health Insurance Fund (NHIF) in 1998 (Humba, 2005). Established by an Act of Parliament (Act No. 8 of 1998), and administered by an autonomous Board of Directors, the NHIF aims to create a reliable, affordable, quality and readily accessible system of health care for formal sector employees in Tanzania, with the hope of extending it to other groups and individuals over time. Like most social programs, the NHIF is based on a progressive, income-tested premium system. The current premium is set at 6% of employees' salary to be paid equally (at 3% each) by the employees and employers (Kamuzora and Gilson, 2007).

NHIF membership covers the principal member or employee, his or her spouse(s), and four children or legal dependents. In a situation where both parents are in the public service, each has the right to register up to four children or dependents. As of 2005, there were some 1.1 million beneficiaries of the NHIF, nearly a quarter of which (248,343) were principal members. With an estimated national population of 36.7 million (in 2005), a mere 3% of Tanzanians are evidently covered by the NHIF. At the onset of operations in July 2001, NHIF covered only central government employees, but was expanded to include all public servants in the country the following year; the plan is to cover all formal sector employees ultimately. The Minister of Health, to whom the NHIF Board of Director reports, has been empowered to determine any other categories of workers to be included in the Scheme (Quijada and Comfort, 2002).

In benefits, the Scheme covers registration or consulting fees; basic diagnostic tests; outpatient services, including payments for examination and prescription drugs; and in-patient services, which include accommodation, medication, examination, medical investigations and surgeries, ranging from minor to major specialized surgeries. NHIF uses a National Essential Drug List (NEDLIT) as the basis for clients' drug benefits. Publicly funded health programs relating to children's vaccination and major epidemics are exempted from the NHIF; so also are socially disapproved health procedures such as sex change or cosmetic surgery. As of January 2005, some 3,705 (or 86 percent) of the existing 4,284 public and private health facilities across Tanzania were accredited to work for the NHIF (Humba, 2005; Tanzania NHIF, 2005)

5.2.2. Community Health Fund and other Health Insurance Schemes

Other community, occupational, and private health insurance schemes operate in Tanzania in addition to the NHIF. Following the 1994 Health Sector Reform, the government introduced the Community Health Fund (CHF) in 1995, targeting the nation's rural population, the bulk of which is ineligible for the NHIF. The CHF was first piloted in the Igunga District in 1996, and subsequently expanded to 9 other districts in 1999. In 2001, the Community Health Fund Act was passed, making the CHF an integral

part of the government's national health plan at the local level. By 2002, a total of 23 districts across the nation had CHF (Quijada and Comfort, 2002; Chee, Smith and Kapinga, 2002). The number of district under CHF increased to 48 by 2005—even though the target was to cover all 127 districts of Tanzania by 2003 (Humba, 2005, 4).

CHF members pay a fixed annual fee per household. Low income households which are not able to pay the fees are, in principle, entitled to an exemption, and all those who are capable, but refuse to join this prepayment scheme are subject to a parallel user fee regime upon visiting public health facilities. The CHFs are managed by Council Health Services Boards (CHSB) whose members are drawn from the local government and the community. The CHSBs work with Council Health Management Teams (CHMT) to ensure quality of care. At the local level, Ward Health Committees (WHCs) mobilize members of the community to join the schemes, grant exemptions to the very poor, and develop community health plans for submission to the districts, where the CHF membership contributions are pooled together. At present the government provides matching funds for the CHF at the district level. We must note that the CHFs are implemented differently by different districts. For instance, while the CHFs in most districts cover primary care services at health centers and dispensaries, the CHF in the district of Songea provides three gradations of benefits, with members paying for different levels of health care, including outpatient and inpatient treatment at mission hospitals (Quijada and Comfort, 2002).

The benefit package for the Tanzanian CHF is predominantly primary care, with some hospital benefits (Bennett, 2004). In principle, the CHF embraces the services of government, private non-profit, and private for-profit health care providers, but in practice no, or only a few, members of the latter category actually participate in the scheme. Shaw (2002) and Kamuzora and Gilson (2007) write of the problems of low enrolment in the Tanzanian CHF. Indeed, a mere 10% of the target population was enrolled by 2002—woefully short of the 70% envisaged by the government by that time (Shaw, 2002). Following a comprehensive evaluation, Kamuzora and Gilson (2007) attributed the low enrolment in the Tanzanian CHF to many factors, including a widespread inability to pay membership contributions, the poor quality of available services, a failure among communities to see the rationale for protecting against the risk of illness, and a lack of trust in CHF managers. Expectedly, the acuteness of these factors varied with the respondents' socioeconomic status, with the poor complaining most about their inability to pay their membership contributions.

Besides the CHFs, there are various occupation-based and associational Mutual Health Insurance schemes in the nation's informal sector (Table 2). Notable among these are the *Umoja wa Matibabu sekta isiyo Rasmi Dar es Salaam* (UMASIDA) and the *Vikundi vya Biashara Ndogondogo* (VIBINDO)—or the Association of Petty Traders with Health Insurance. Also, a few private for-profit health insurance agencies, such as Medical Express (MEDEX) and Against All Risk (AAR), are operating in Tanzania (Humba, 2005, 4).

Table 2: Health Insurance Schemes in Tanzania

Sector	Existing Programs
PUBLIC	
<i>National</i>	<ul style="list-style-type: none"> • National Health Insurance Fund established by Act No. 8/1999 • National Social Security Fund (medical care) Established by Act No 28/1998.
<i>Community</i>	<ul style="list-style-type: none"> • Community health insurance programs run in 48 districts, under Act No. 1/2001
<i>Micro-insurance</i>	<ul style="list-style-type: none"> • UMASIDA¹, VIBINDO², and health insurance schemes run by churches, informal sector groups, cooperatives, etc, all of which operate under the Societies Act.
<i>Occupational Schemes</i>	<ul style="list-style-type: none"> • Schemes organized by some employers.
PRIVATE	<ul style="list-style-type: none"> • National Insurance Corporations; MEDEX (T) Ltd³; AAR Health Insurance⁴; and Strategic Insurance—all these are registered under the Insurance Commission as brokers.

Notes:

1. UMASIDA = *Umujo wa Matibabu sekta Isiyo Rasmi Dar es Salaam* (a mutual health insurance scheme in the informal sector).
2. VIBINDO = *Vikundi vya Biashara Ndogondogo* (association of petty traders with health schemes).
3. MEDEX = Medical Express (a Tanzanian-incorporated private health insurance company).
4. AAR –Against all risks: a private insurance company, incorporated in Tanzania.

Source: Humba (2005, p. 4).

5.3. Maternal Health Care: Cost, Finance, and Insurance Protections

According to Tanzania Demographic and Health Survey (TDHS) 2004-05, 94% of the women who gave birth within 5 years of the survey received antenatal care from a trained health professional at least once. Median month at first antenatal visit was 5.4 months. Only 47% of women gave birth at a health facility, just the same as in 1999. Only 46% of births were attended by a trained professional in 2004-05, an increase over the 36% reported in 1999 (Quajada and Comfort, 2002). Also, whereas 81% of the births in urban areas were attended by trained professionals, the corresponding figure for rural areas was 40%. An estimated 83% of those who delivered outside a health facility did not receive postnatal care (Quajada and Comfort, 2002).

Financial barriers do not seem to be a factor in accessing antenatal care in Tanzania, as it is generally provided free of charge to the vast majority of women. Even the cost of drugs and transportation associated with antenatal care seems to be minimal, hence the high utilization of antenatal care in Tanzania. For instance, the 1996 Tanzanian Human

Resources Development Survey noted that about 95% of women who had given birth in the year preceding the survey had used antenatal care; the vast majority (92%) accessed antenatal services free of charge. No significant rural-urban differences were recorded for the proportion of women who had antenatal care and women who did not have to pay for this care. The fact is antenatal services provided by government and mission health facilities are usually free of charge, and these facilities happen to be the main providers of antenatal services in the country, as can be seen from Table 3 below.

Table 3: Cost of Antenatal Care Services, by Type of Provider

Type of Provider	Cost (in Tanzanian Shillings) ¹				
	<i>Free</i>	<i>1-499</i>	<i>500-999</i>	<i>1,000-9,999</i>	<i>10,000-40,000</i>
Government	95% (n=576)	4% (n=21)	0% (n=3)	1% (n=8)	0% (n=1)
Mission	71% (n=41)	22% (n=16)	3% (n=2)	4% (n=5)	0% (n=0)
Private	57% (n=14)	5% (n=4)	9% (n=5)	16% (n=9)	13% (n=7)
Employer-Owed	100% (n=5)	0% (n=0)	0% (n=0)	0% (n=0)	0% (n=0)

¹The exchange rate of the Shilling to the US\$ varied from Tsh763 to Tsh 800 per US\$1.00 in 1996 when the Tanzanian Human Resource Development Survey, from which this table is derived, was conducted.

Source: Quijada and Comfort (2002, 8)

5.3.1 Cost of Delivery

Available records show that the majority of women who gave birth in health facilities received delivery services, drugs, supplies, and transportation free of charge. Still the percentage of women who incurred delivery-related expenses is significantly higher than those who incurred antenatal expenses, according to estimates by Quijada and Comfort, (2002, 19). Also, cost of delivery varied with delivery type – whether vaginal or caesarian section (Tables 4 and 5).

Table 4: Payments for Delivery Services

Type of delivery	Cost (in shillings)				
	Free	1-499	500-999	1,000-4,999	5,000-40,000
Vaginal	84%	5%	3%	7%	1%
Caesarian	77%	9%	2%	8%	4%

Source: Quijada and Comfort (2002, 9)

Table 5: Payment for Delivery-related drugs and medical supplies

Type of delivery	Cost (in shillings)				
	Free	1-499	500-999	1,000-4,999	5,000-40,000
Vaginal	76% n=278	8% n=22	8% n=23	8% n=36	0% n=1
Caesarian	53% n=22	20% n=3	7% n=2	10% n=6	10% n=5

Source: Quijada and Comfort (2002, 10)

Most women had no delivery-related transportation costs, especially when they underwent vaginal deliveries; this was even more so for those in rural areas, where up to 85% vaginal deliveries had free transportation compared to 61% in urban areas (Quijada and Comfort (2002, 10). Only few women are reimbursed for any antenatal and delivery costs out of health insurance or through their employer, and even fewer women in rural, as against urban, areas generally have this cost-recovery opportunity. The rural-urban ratio for reimbursement stood at 0.4:3 (Quijada and Comfort, 2002).

5.3.2. *Is Maternal Care in Tanzania Free or Not Free? That is the Question*

In 1993 when the government of Tanzania introduced user-fees for health care, a national waiver/exception policy was developed for special health services (e.g. family planning) and specific groups, including the poor, children under five, patients with epidemic diseases, and, more importantly, for pregnant women. While the number of outpatient visits to public hospitals declined by as much as 53% a year after the introduction of user-fees, the utilization of private health services remained almost constant during the same period (Hussein and Mujinja, 1997). Also, Kwast and Vickery (1998) found a drop in the number of births attended by a skilled professional during this same period. A study of 30 Tanzanian districts by the Muhimbili University College of Health Science (1999), noted that high financial cost—in the purchase of drugs, medical supplies, and charges for delivery complications—was the main reason for women giving birth at home. The question that persists is whether maternal care in Tanzania is free or not. Put differently, are pregnant women actually and truly included in the national waiver and exception policy for health care?

A closer look at the available data suggests that even though maternal care is supposed to be officially free, women often have to purchase maternity-related drugs and other medical supplies, and sometimes even have to pay for health procedures associated with complicated deliveries (Muhimbili University College of Health Science, 1999). Indeed, the interpretation of ‘free’ varies among health facilities and health providers. While the official, legal language put ‘free’ antenatal consultation as a right of every woman in Tanzania, many health providers interpret this in a way to strictly associate the term ‘free’ solely with ‘consultation,’ and consequently find any maternity care-related drugs

and medical supplies legally chargeable. The key question is whether mothers can afford their maternal health care costs. This is exactly what Kowalewski, Mujinja, and Jahn (2002) set out to answer in the context of South Tanzania.

Using data from 107 women attending government health facilities in the Mtwara urban and rural districts in South Tanzania, and insights from 21 key informants and some field observations, Kowalewski, Mujinja, and Jahn (2002) noted the following intriguing facts about the cost and affordability of maternal care in the study area:

- Users of maternal services pay for admission, drugs, supplies and travel costs.
- Travel cost usually takes up about one-half of all the financial costs associated with maternal care.
- Average total cost varies from a low of US\$11.60 for antenatal consultation to as high as US\$135.40 for caesarean section at the hospital.
- Time costs or opportunity costs—which include the cost of foregone wages by the care seekers and time spent in travel, waiting, and treatment, as well as the time invested by the caretaker or accompanying person—are almost always higher than financial costs, which include all direct expenses on health care by the household, such as expenditure on transport, drugs, admission fees and cost of food and living at the treatment site for both the patient and caretaker.
- The opportunity costs of waiting times and hospitalization are particularly hard on peasant farmers and mothers with many children.
- High direct payments and the fear of unofficial costs are acute barriers to accessing maternity service; we must note that these authors excluded unofficial costs (of drugs and treatment which are often higher than the official payments) from their calculations, given their irregular character.
- Mothers can rarely afford the costs of maternal services; many women found the direct costs of their maternal service to be way beyond what their nuclear family could afford, and had to routinely borrow money to make up the difference (Kowalewski, Mujinja, and Jahn, 2002).

In yet another study on the affordability of maternal care among Tanzanian women, Prata *et al.*, (2004) examined what it will take to meet WHO standards on maternal care, as set up in the Mother-Baby Package (MBP)². With data on some 757 women of reproductive age derived from the 1993 Living Standard Measurement Survey (LSMS), they estimated the spending on maternal care by women of different socio-economic background. In addition, they examined the effect of prices paid for maternal care on the likelihood of using antenatal care and safe delivery services, controlling for relevant socio-economic and demographic factors, under a logistic regression analysis. Their findings included the following:

- Tanzanian households were spending between 3 and 5% of their total expenditure on maternal health care (in 1993).
- Poverty and lack of education generally cause women to underutilize maternal health services.

- If the WHO mother-baby package were to be implemented under a 100% cost recovery regime, most Tanzanian households would have to allocate more than half of their annual consumption on maternal health care alone.
- Poor socio-economic groups would experience the greatest increase in the use of maternal care if the MBP were subsidized. Consequently, the authors argued for financing arrangements that entail subsidies and cross-subsidization to the benefit of the poor, in particular (Prata *et al.*, 2004)

Evidently, Tanzanian women still pay for maternal care, even though it is officially ‘free’ in the country. Moreover, the cost involved in maternal services is prohibitive enough to prevent some women from seeking these services altogether. Thus, one has to read the ‘official’ literature on maternal care in Tanzania with some dose of skepticism, especially as it pertains to who pays for what.

6. The Case of Rwanda

6.1. The Rwandan Health Care System and its Financing

Rwanda had a virtually ‘free’ government-provided health care system immediately after independence. However, since the economic crisis of the early 1980s, free health care has become difficult to sustain, and various prepayment systems have become common. With insights from the 35th Session of the African Regional Committee of WHO, held in Lusaka in 1985, and the *Bamako Initiative* of 1987³, the Rwandan government adopted a health care strategy that placed more emphasis on decentralized management, district-level care, and community-based healthcare financing. In fact, some 68% of all health centers were involved in a community-based health care financing of one sort or another, by the time the war started in 1994 (Republic of Rwanda, Ministry of Health [MoH], 2003). However, these developments were completely disrupted during the civil war and genocide of 1994.

In 1995, the government issued a new policy to guide the reconstruction of the health system. Among other things, the Bamako Initiative was re-launched with the establishment of health committees in various health centers and district health offices that included community members. Also, in 1995, a network of health promoters were set up throughout the country (Republic of Rwanda, MoH, 2003), and a year later, a user-fee scheme was introduced in some areas of health services to help recover some of the cost of health care in the country (Save the Children, UK, 2007, 3⁴). Since April 2000, the various health committees have included health promoters elected by the population to ensure a better representation of community concerns (Republic of Rwanda, MoH, 2003).

Healthcare services in Rwanda are provided through four main entities – the public sector, government-assisted health facilities (GAHFs), private health facilities, and traditional healers. Rwanda has a three-tier, hierarchical public healthcare structure, starting from a broad base of peripheral or district health facilities (which include district hospital and primary level health centers and dispensaries), through the intermediate or

the provincial health offices, to the central or national reference hospitals at the peak (Republic of Rwanda, MoH, 2005 and 2004). The central level is responsible for developing health policy and the overall strategic and technical framework of the health sector. It is also responsible for monitoring, evaluation, and quality assurance in the provision of health care, and manages the national referral facilities—i.e., the Butare Teaching Hospital and the teaching hospital in Kigali. The intermediate level of care is made up of 11 provincial health offices, managed by the Department of Health, Gender, and Social Affairs. The intermediate level does not provide health services, but deals with management and policy issues. With the increasing tilt towards decentralization in health care, the facilities at the peripheral or district level are now empowered to plan, manage, coordinate, and evaluate the activities of district hospitals and health centers. The district management teams are made up of health professionals, directors of nursing schools, and representatives of various community groups. By the end of 2001, there were 33 functioning district hospitals across the country (Republic of Rwanda, MoH, 2005). Below the district hospitals are numerous health centers, health posts and dispensaries serving the small rural communities. The system of referral naturally runs bottom-up, with the Teaching Hospitals at the national level exhibiting the highest level of medical and health care sophistication. Fully-integrated in the public health system are Government-Assisted Health Facilities (GAHFs) run by NGOs and faith-based organizations. In 2001, some 40% of primary and secondary health facilities were GAHFs. In addition to these are the health care services provided by private health facilities, which now number over four hundred with more than half located in and around the capital city of Kigali (Republic of Rwanda, MoH, 2003).

Medical pluralism is the norm in Rwanda. The sick are just as likely to consult traditional medical practitioners as they are to see modern health care providers, depending on the type of illness. Recognizing the importance of traditional medicine (TM) in the health care system, the Ministry of Health and the Institute of Scientific Research and Technology have embarked on a program to organize and train TM practitioners. In particular, efforts are underway to enhance the quality of home deliveries assisted by traditional birth attendants (TBAs), with pilot training programs in various districts. By the end of 2001, some 1800 TBAs had been trained under these pilot programs (Republic of Rwanda, MoH, 2005 and 2003).

Data from the Rwanda National Health Accounts for 2002 show that total health expenditure (THE) decreased substantially from RWF 35.5 billion in 1998 to RWF 30.6 billion in 2000, before increasing to RWF 33.3 billion in 2002. The nation's total health expenditure, as a percentage of GDP, decreased from 5.1% in 1998 to 4% in 2000 and remained at the same level in 2002 (Table 6). With an increase in the national population of more than 400,000 in absolute terms between 2000 and 2002, the per capita health expenditure has declined. In the immediate years following the civil war, donor contribution to the nation's health care system increased substantially. However, since 2000, there has been a decline in donor support for Rwandan reconstruction in general, and the health sector in particular. Consequently, both the government and the private sector have been compelled to contribute more to finance the health sector (Table 6). Although the Rwandan government has increased health expenditure as a percent of

government spending from 4.7% in 2000 to 6.1% by 2002, it still falls far short of the 15% of total government expenditure target set by African governments under the *Abuja Declaration*⁵.

Table 6: Rwanda National Health Account: Summary of Statistics, 1998, 2000, and 2002

Indicator	1998 ¹	2000 ¹	2002
Total Population ²	7,883,000	7, 691,783	8,128,553
Total Health Expenditure (THE) per capita	RWF 4,501 (US\$14.20)	RWF 3,985 (US\$10.14)	RWF 4,096 (US\$8.62)
THE as % of nominal GDP	5%	4%	4%
<i>Financing sources as % of THE</i>			
Public (including public firms)	9.9%	18%	24.7%
Private	39.6%	30%	41.8%
Donor	50.5%	52%	33.4%
<i>Household Spending on Health</i>			
Household spending as % of THE	33%	26%	31%
Out-of-pocket (OOP) spending as % of THE	32.5%	25%	25%
OOP spending per capita	RWF 1,464 (US\$4.26)	RWF 987 (US\$2.51)	RWF 1,011 (US\$ 2.13)
<i>Provider as a % of THE</i>			
Public facilities	66%	69%	55.6%
Gov't-assisted not-for-profit facilities	10%	7%	24.8%
Private facilities	24%	19% ³	19.6%
Exchange rate US\$ 1 = RWF	317	393	475

Notes:

¹All RWF amounts for 1998 and 2000 are in constant 2002 RWF to facilitate comparison. The Consumer Price Index (CPI) was used for the conversion (89.3 for 1998 and 93.1 for 2000).

²The 1998 population figure is based on the 1992 census; the 2000 and 2002 figures are based on the 2002 census. Due to the genocide and subsequent repatriation, it is virtually impossible to determine the precise population trends for the 1990s.

³Does not add up to 100% because other represents 5%.

Source: Republic of Rwanda, Ministry of Health, 2005. Rwanda National Health Accounts, 2002.

6.2. Health Insurance in Rwanda

6.2.1. Community-Based Mutual Health Insurance Schemes

In 1999, the government of Rwanda, in collaboration with local communities, and with technical assistance from Partnerships for Health Reforms (PHR)—a USAID-funded project—created 54 micro-health insurance schemes in three rural districts, including Kabgayi, Byumba, and Kabutare (Diop and Butera, 2005; Republic of Rwanda, 2004). Organized and managed on the basis of partnership between the various communities and health providers, these Mutual Health Insurance schemes are actually recent versions of older community-based health insurance schemes, such as the *association*

Muvandimwe de Kibungo (1966) and the *Association Umubano mubantu de Butare* (1975). No wonder some authors (e.g., Schmidt, Mayindo and Kalt, 2006; Diop and Butera, 2005), still refer to them as Community-Based Health Insurance (CBHI) schemes, while others (including us) use the two terms interchangeably.

Community-based Mutual Health Insurance (MHI) organizations (locally *mutuelles*) have tripled from 76 in 2001 to 226 by November 2004⁶ (Republic of Rwanda, 2004, 4). While estimates vary, at least 2 million out of Rwanda's total population of 7.7 million then, were covered by MHI schemes in 2004 (Republic of Rwanda, Ministry of Health, 2004). Schmidt, Mayindo, and Kalt (2006) even put the rate of coverage at 43% of the nation's total population of 8 million, with one in every ten members being insured for free on grounds of indigence⁷.

Membership to the MHI organizations is voluntary, usually through a contract between the scheme and members. The amount of annual contribution varies slightly from organization to organization, with individuals paying between US\$1.20 and US\$2.0 per annum, and households paying between US\$7.90 and US\$10.0, depending on the scheme (Republic of Rwanda, Ministry of Health, 2004). The yearly premiums are calculated on the basis of variables such as people's ability to pay, the health center's recurrent costs, utilization rates, existing user fees, the target population, and the desired benefit package (Musango *et al.*, 2006; Schmidt, Mayindo and Kalt, 2006; and Diop and Butera, 2005). Each member is entitled to sign up to seven members per family per annum. The MHI organizations pay a monthly capitation amount to partner health centers, based on the number of enrollees. According to Musango *et al.*, (2006, 98) members are required to pay between US\$0.30 and US\$0.60, as co-payment, per episode of illness. Schneider and Hanson (2006) report that the insured patient pays about RWF497 (US\$1.27) but the uninsured pays about RWF1987 (US\$5.09) per episode of illness.

While the benefit packages vary slightly across the MHI organizations, they generally include all services and drugs provided at the health center, or what is officially called the Minimum Package of Activities (MPAs) in the Rwanda Health Accounts. The MPAs are care provided at health centers and include prenatal care, postnatal care for mother and child, simple childbirth, vaccination, family planning, nutritional services, and curative consultations. Other MPAs are nursing care, hospitalization, essential and generic drugs, laboratory analysis, minor surgical operations, health information, education and communication, and transportation of patient to the district hospital (Republic of Rwanda, Ministry of Health, 2004 and 2005; Musango *et al.*, 2006). In addition, a small number of Complementary Package of Activities (CPAs⁸) are covered by many MHI organizations. The common CPAs covered are consultations with doctors, pediatric care, difficult deliveries including caesareans, and accommodation at the district hospital (Musango *et al.*, 2006, 98).

A number of NGOs, faith-based organizations, and even some local communities provide grants and subsidies to enable the poor to join the MHI organizations in Rwanda (Republic of Rwanda, MoH, 2004, 8). Besides the community-based Mutual Health Insurance organizations, other types of health insurance operate in Rwanda, of which the

Rwandaise Health Care Insurance (*La Rwandaise d'assurance maladie* [RAMA]), the *Fonds d'appui aux rescapés du génocide* (Genocide Survivors' Support Fund [FARG]), the *Gacaca* program, and the Army Mutual Association are worthy of note.

6.2.2. RAMA and other Public Health Insurance Schemes

Set up in 2001 by the government, RAMA is an independent association which provides compulsory health insurance for workers in the formal sector, and now allows the enrollment of members of the private sector, on a voluntary basis. The premium for RAMA is set at 15% of the employee's basic salary, with the employee paying half (i.e., 7.5%) and the employer also paying the other half. Members have to wait for at least three months, following their premium payments before accessing benefits, which include all medical benefits provided in the nation's public and approved health establishments, with the notable exception of antiretroviral drugs (ARVs), prescription eye glasses, and prostheses. Eighty five percent of RAMA members' health coverage comes under a third party payment system, with the remaining 15% paid by the member in the form of a co-payment upon accessing benefits. According to Musango *et al.*, (2006, 96), RAMA had some 49,283 contributors and 106,111 dependents—thus a total membership of 155,394.

The *Gacaca* Insurance scheme is a State-organized health insurance program for members of the public that are involved in traditional conflict resolution tribunals, known locally as *gacaca*. Set up to arbitrate and resolve genocide allegations, membership to the *gacaca* is by election and those elected work, not as paid government employees, but as highly esteemed members of the community in an honorary capacity to resolve conflicts. These tribunal members are commonly called *inyangamugayo*, or 'people with integrity.' The *Gacaca* health insurance, which covers 100% of the minimum and some complementary medical cost of *gacaca* members, is the government's way of showing appreciation for the services of these tribunal members. An estimated 18,350 persons with 95,420 dependents are covered under the *Gacaca* Insurance, a total of 113,770 beneficiaries (Musango *et al.*, 2006, 97).

Rwanda's military and their dependents are covered by the Army Mutual Association, which now has some 100,000 beneficiaries. The benefit package and the premiums paid by members are similar to those of the RAMA scheme. The Rwandan prison system also runs a free health care service for inmates with the State footing the entire bill. Table 7 shows the number of beneficiaries in the various health insurance programs in Rwanda.

Table 7: Health Insurance Schemes in Rwanda, 2005

Sector	Scheme	Number of beneficiaries	As percentage (%) of total population covered by health insurance.
Public System	RAMA	155,394	5.1%
	FARG	283,000	9.2%
	<i>Gacaca</i>	113,770	3.7%
	Prisoners	107,000	3.5%
	Army	100,000	3.3%
Private System	Community-based Mutuels	2,101,034	68.4%
	Health insurance in the private sector	213,512	6.9%
<i>Total number of beneficiary</i>		<i>3,073,710</i>	<i>100%</i>
<i>Total national population</i>		<i>8,128,553</i>	
<i>Percentage of national population covered</i>		<i>37.8%</i>	

Source: Musango *et al.*, 2006, 99.

6.3. Reproductive/Maternal Healthcare: Financing and Protections

With a MMR of 1071 per 100,000, a mere 30% of births attended by a trained birth attendant, and only 27% of births taking place in a health facility, Rwandan women clearly have poor reproductive health status (Table 8). The high poverty rate, estimated at 62% among female-headed households and 54% among male-headed households, compounds the problem further (Republic of Rwanda, MoH, 2005). About 79% of the respondents of the nation's *Integrated Household Living Conditions Survey (2000-2001)* reported that cost is their greatest barrier to seeking basic medical services (Republic of Rwanda, Ministry of Finance and Economic Planning 2002).

Table 8: Reproductive Health Indicators in Rwanda

Indicator	Value/Rate
Women of reproduction as a % of total population	25%
Maternal mortality ratio per 100,000 live births	1,071
Total fertility rate	5.8
Use of antenatal care	92%
Percentage of birth in a health care facility	27%
Percentage of births with a trained birth attendant	30%
Use of postnatal care	1.1%

Source: 2002 Census of Rwanda; DHS 2000

How is reproductive healthcare financed in Rwanda? In 2002 the nation spent a total of RWF 5.2 billion (or US\$10.9 million) on reproductive health in general; this constituted about 16% of all government spending on health, and translates to a spending of RWF

2,524 (or US\$5.31), per woman of reproductive age. A striking feature of reproductive health financing in Rwanda is its high dependence on donors. According to Rwanda's 2002 National Health Account, an estimated 80% of the total spending for reproductive health emanated from donors, followed by 12% from private sources (mostly from households), with the remaining 8% coming from the government (Table 9). Reproductive health receives a mere 4% of Rwandan government health expenditure, although women of reproductive age account for 25% of the total population (Rwanda National Health Accounts, 2002). Of the allocation for reproductive health, 8% is spent on prenatal care, and 7% on postnatal care (Rep of Rwanda, MoH, Rwanda National Health Accounts, 2002).

The cost of each facility-based delivery was estimated at about RWF 3,603 (US\$7.59) in 2002, a sizeable sum when the per capita GDP is only between US\$220 and US\$250 (Schneider and Hanson, 2006; ILO, 2007). Even more worrying is the fact that a greater part of this cost (some 60%) is shouldered directly by households.

Table 9: Financing of Reproductive Health (RH) in Rwanda, Summary Statistics, 2002

Indicator	Value
General Indicators	
Total Reproductive Health (RH) Expenditure	RWF 5,216 million (US\$10.98 million ¹)
RH expenditures per woman of reproductive age	RWF 2,524 (US\$5.31)
RH expenditures as a % of GDP	0.6%
RH expenditures as a % of total of overall health spending	15.7%
Financing Sources of Reproductive Health Funds (as % of the Total Health Expenditure for RH)	
Public (including parastatals)	7.7%
Private	12.5%
Donor	79.8%
Household (HH) Spending	
Total Household spending as a % of THE for RH	10.6%
Out-of-pocket spending (OOP) as a % of THE for RH	10.0%
OOP spending per woman of reproductive age	RWF253.36/US\$0.53
Functions (as % of THE for RH)	
Curative care as a % of THE for RH	18%
Preventive & public health programs as a % of THE for RH	66%
Pharmaceutical & other non-durables as a % of THE for RH	3%
Health administration as a % of THE for RH	7%
Other as a % of THE for RH	6%
Breakdown by Reproductive Health Functions (as % of THE for RH)	
Maternal health services (curatives care)	15%
Family planning (FP)	6%
Preventive and public health programs on maternal health & FP	66%
Administration	7%
Other	6%

¹Exchange rate used for 2002 is 1US\$ = RWF 475

Source: Republic of Rwanda, Ministry of Health, 2005, *Rwanda National Health Accounts, 2002*.

6. 3.1. Health Insurance and Maternal Care in Rwanda

With all the insurance schemes profiled above covering the stipulated Minimum Package of Activities (MPA), it is implicit that they all cover maternal care, which, as we saw in the preceding paragraphs, is part of the MPA. At the same time the matter is not that simple, considering the fact that most insurance schemes require some co-payments, to the tune of about 15% of the cost of benefit per episode of illness. With more than 60% of the population below the government's own poverty line (Musango, *et al.*, 2006, p.93), it is not hard to speculate that even some insured women would find it difficult to access maternal care due to cost.

In principle, very poor households are to be insured for free or at a subsidized rate, with the help of grants from NGOs and Faith-based organizations, and even from some local community resources, but in practice this does not happen. Hospital bills of the indigent are often left unpaid by the public authorities due to budget shortfalls. And since health providers cannot continue to operate at a loss, they are becoming increasingly demanding when it comes to the provision of healthcare to the very poor and needy. Despite the popularity of health insurance in Rwanda, however, only a little over a third of Rwanda's population has health insurance coverage.

7. The Case of Kenya

7.1. The Healthcare System and its Financing

Healthcare in Kenya is provided by both the public and private sectors. Public facilities are run by the Ministry of Health (MoH) and other parastatal agencies. Private hospitals, clinics, maternity and nursing homes, as well as a number of health facilities run by NGOs and faith-based organizations (FBOs) constitute the private sector in health care. By 2004, there were some 4,767 healthcare facilities across the country, with a 51:49 public-private percentage split (Kenya National Coordination for Population and Development [NCPD] *et al.*, 2005, 15). Table 10 shows the number of health facilities, hospital beds, and cots in Kenya from 2001 to 2004.

The public health system in Kenya is hierarchically tiered from community and village dispensaries and health centers through district hospitals and provincial general hospitals to the national referral hospitals at the apex. Supervision and management support generally flow inversely to referral in this hierarchy, with the national hospitals—namely, the Moi Referral and Teaching Hospital and the Kenyatta Hospital—exercising the most administrative influence, management power, and sophistication in terms of health care facilities and professionals. The private health sector is monitored and supported by the Ministry of Health, which also offers staff training and secondment as well as drugs and vaccines whenever necessary. The NGOs, FBOs, and Community-based organizations in the private sector provide a variety of services, depending on their mission and

capabilities (Kenya National Coordination for Population and Development [NCAPD] *et al.*, 2005).

Table 10: Health Facilities in Kenya, 2001-2004

Facilities	2001	2002	2003	2004
Hospitals/maternalities	500	514	526	562
Health centers	611	634	649	691
Dispensaries	3310	3,351	3,382	3,514
Total	4421	4,499	4,557	4,767
# of beds and cots	58,080	60,657	65,851	65,971
# of beds and cots per 100,000 people	18.9	19.2	19.5	18.1

Sources: Kenya National Coordination for Population and Development [NCAPD] *et al.*, 2005, p.17.

Kenya's health care system was financed almost entirely from government revenue in the immediate post-independence era. However, with declining government tax revenue and mounting external debt, especially since the early 1980s, the government has moved to incorporate more user fees, health insurance, NGOs, FBOs and donor funds in health financing. Available records show that the government now finances about 50 percent of the recurrent health care costs in the country with the private sector, including health insurance and other out-of-pocket payments, covering some 42% (Kenya Ministry of Health, 2005). Donors, NGOs, and other institutions finance the remaining 8% (Kimalu, 2002, 4). Per capita health expenditure stood at US\$6.2 by 2004. While this amounts to a sizeable increase over the 1996 figure of US\$3.09, it is still below the corresponding figure of US\$9.55 for 1980, and, indeed, well short of WHO's recommended health spending of US\$34 per capita (Kimalu, 2002). Kenya's government has pledged under the *Abuja Declaration* to increase its annual healthcare spending from the current 8% of national budget to at least 15%; the country is far from meeting this target (Kenya Ministry of Health, 2005).

While Kenya's health indicators improved steadily from independence to the early 1990s, recent evidence suggests a reversal of fortunes, with declines in key health indicators. For example, infant mortality rate increased from 51 in 1992 to 74 per 1000 live births in 1998. Similarly, under five-mortality rate increased from 74 in 1992 to 90 in 1995, and jumped again to 112 by 1998 (KDHS, 1998; Kimalu, 2002, 6). Furthermore, immunization coverage declined from 79% in 1993 to 65% in 1998 (KDHS, 1998; Kimalu, 2002, 6).

With deteriorating macroeconomic conditions including high inflation, sky-rocketing national debt, and dwindling national tax revenue, both the quantity and quality of health services in Kenya have eroded considerably. This is even more so for the nation's poor, following the introduction of various user-fees. Now shortages of staff, drugs, pharmaceutical supplies, and healthcare equipment are commonplace in the Kenyan

healthcare system. While the government had wanted to rely more and more on cost-sharing mechanisms to alleviate the shortfalls in its health budget, there seems to be a policy reversal in recent years, with an increasing move towards social health financing. Plans are well underway to institute a National Social Health Insurance in place of the existing National Hospital Insurance Fund, which currently covers only formal sector workers and their families, who constitute less than a quarter of the national population.

As of 2002, more than one-half of the Kenyan healthcare financing emanated from households (Table 11), although nearly 56 percent of Kenya's population is poor. For example a Kenyan national survey, *Household Health Care Utilization and Expenditure Survey*, noted that poor households used less health care than their well-to-do counterparts (Kenya Ministry of Health, 2005).

The government continues to explore different ways of raising healthcare funds, but given the limited financial resources of most Kenyans, this has never been easy. Efforts to generate more funding from the existing NHIF is plagued with several problems, not the least of which are the weak administrative capacity and poor investment portfolio for the fund. Cost-sharing has not been a smooth source of health revenue generation, either, because it provides less than 3 percent of government recurrent health budget (Kimalu, 2002).

Table 11: Who Pays for Health Care in Kenya, 2002

Payer	Percentage Share
Household	51
Public	30
Donors	16
Other Private	3
<i>Total</i>	<i>100</i>

Source: Kenya Ministry of Health, 2005.

7.2. Health Insurance in Kenya

In 1966, Kenya became the first sub-Saharan African country to introduce health insurance for workers and their families, with the creation of its National Hospital Insurance Fund [NHIF] (ILO, Social Security Department, 2007, 49). At first, only salaried workers were enrolled on a mandatory basis, but in 1972, the program was expanded to include the self-employed—and, more recently, organized groups and pensioners—on a voluntary basis (Kenyan Retirement Benefits Authority, 2007). The program was transformed in 1998, with the enactment of NHIF Act No. 9, to become a State Corporation managed by a Board, whose members are drawn from a far broader spectrum of the Kenyan society, including representatives from Ministry of Health, Federation of Kenya Employers, Christian Association of Kenya, Kenya Medical Association, Trade Unions, NGOs, Farmers and Teachers' Union (Kenya Retirement Benefits Authority, 2007).

The NHIF now draws from workers who earn at least Kshs.1000 per month and self-employed persons whose annual income is at least Kshs.12,000 per annum. Premiums are set per family, as against per head, and are based on income. As of February 2007, the premiums ranged from Kshs.30 to 320 per month, for formal sector workers; for informal sector workers, pensioners, and members of organized groups the premium was Kshs.160 per month or Kshs.1920 per year. The premiums for salaried workers are collected by way of payroll deductions, while informal sector enrollees pay directly at any of the NHIF offices.

The scheme covers in-patient medical needs together with most admissions to a fixed number of days. As of February 2007, the scheme covered a total of 180 days of hospitalization per year, at a daily rate which ranged between Kshs.400 and Kshs.2200. Thus, depending on the type of illness, and, consequently, the number of days in the hospital, members may still have to make out of pocket payments. The coverage extends to the enrollees' immediate family members, including spouse, and children under 18. For a child over 18 years to be covered, he or she has to be attending an educational institution. There is no limit on the number of spouses covered, as long as the polygamous enrollee has the ability to pay for the additional spouse(s). By February 2007, the scheme had some 1.5 million principal enrollees, and 800,000 dependents, bringing the total number of beneficiaries to 2.3 million; this represents a meager 6.2%⁹ of Kenya's estimated total population of 36.9 million (CIA World Factbook, 2007; Kenyan Retirement Benefits Authority, 2007).

Kenya's NHIS is essentially a risk-pooling mechanism by which the rich, (in)advertently, supports the poor, the young supports the old, and the healthy supports the indisposed. A health service provider has to be accredited, on the basis of established standards, to be enlisted in the scheme. By February 2007, some 415 health care providers had been enlisted to offer service to NHFI beneficiaries.

Available financial data indicate that the NHIF is reasonably solvent, at least since the late 1990s and early 2000s (Table 12). Efforts to generate more funding are routinely plagued with problems of weak administrative capacity and poor investment portfolio for the fund.

Table 12: NHIF Resources, 1999-2004 (in Kshs)

Financial Year	Receipt (millions)	Benefits (millions)	Contributions net of benefits (millions)
1999/2000	1,694.3	497.9	1,196.4
2000/2001	2,147.7	710.0	1,437.7
2001/2002	2,143.9	591.4	1,552.5
2002/2003	2,523.9	822.0	1,701.9
2003/2004	2,639.5	713.3	1,926.2

Source Kenya Ministry of Health , 2005.

There are indications that the health care service in Kenya is in a decline, with clearly discernable inequities not only between the rich and the poor, but also between urban and

rural areas, with conditions favoring the former in either case. Also, inequities along the axes of gender and education are evident from the National Health Accounts of 2002 (Kenya Ministry of Health, 2005). Most of the gains made in major Kenyan health indicators in the early years of independence seem to be eroding. It is against this background that Kenya is currently embarking on an initiative to replace the existing NHIF with a National Social Health Insurance Scheme with the intent of providing a comprehensive, equitable, and affordable health care to all Kenyans. The legislation for the proposed schemes is yet to be approved in the Kenya parliament, though.

7.3. Reproductive/Maternal and Child Health Care: Utilization, Financing, and Protections

The Kenya “Ministry of Health has sanctioned the existence of *free unfettered* operations of the Reproduction Health and Child Health Divisions” (Kenya National Coordination for Population and Development [NCPD] *et al.*, 2005, 22; our emphasis). The nation’s reproductive health program provides antenatal, delivery, postnatal, and other services relating to safe motherhood and family planning. Other services include the prevention and treatment of infertility, cancer, HIV/AIDS and sexually transmitted diseases. Until quite recently, Kenya’s reproductive health services were directed solely to adult females, but there is now a move to cover adolescents, as well. The child health services offered by the nation’s Child Health Division are equally comprehensive, at least on paper. These include various nutrition, immunization, de-worming, and health education programs aimed at ensuring the survival, growth, and development of children under 18. In addition, Kenya has several private maternity and nursing homes which work in close collaboration with the Reproduction and Health and Child Health Division to provide maternity and child health services (Kenya Ministry of Health, 2005).

Table 13 presents data on the health facilities that provide maternal health services in Kenya. Clearly, maternal care is available at most health facilities in the country. As to whether pregnant women use these services, for reasons of culture, cost, education etc., is a different matter. Unlike ordinary antenatal care, facilities with medicines for treating pregnancy complications are few and far between in Kenya, as in many other countries of the developing world (Table 11).

Table 13: Availability of Maternal Health Care Services in Kenya by Facilities

	Percentage of facilities offering the indicated services					
	ANC ¹	PNC ²	TT ³ vaccine	ANC, PNC & TT	Pregnancy Complica- tions ⁴	# of facilities (weighted)
Type of facility						
Hospital	84	53	98	50	8	28
Health center	86	51	94	47	8	125
Maternity	76	44	84	41	9	20
Clinic	53	21	52	18	8	8
Dispensary	77	24	79	24	0	249
Managing authority						
Government	81	40	86	38	4	245
NGOs	88	74	89	74	0	16
Private (for-profit)	59	23	66	22	8	61
FBOs ⁵	87	24	88	24	2	109

Notes:

1. ANC= Antenatal care; 2. PNC= Postnatal care ; 3. TT= Tetanus Toxoid; 4. Pregnancy. Complications = Percentage of facilities with all medicine for treating pregnancy complications; and 5. FBOs= Faith-Based Organizations.

Source: Kenya NCAPD *et al.* 2005

Whether maternal care, such as ANC, is free of charge or not in Kenya is not quite clear. Some government documents and independent studies indicate that the government provides *free unfettered* maternal care as part of its Reproduction Health and Child Health provisions (Kenyan National Coordination Agency for Population and Development [NCAPD] *et al.*, 2005, 22; Sharma *et al.*, 2005, 15; Republic of Kenya, 1996; Quick and Musau, 1994). Sharma *et al.*, (2005, 15) note that “based on the exemption rules issued by the MoH in 1994, antenatal clients are exempt from ANC treatment, laboratory, and x-ray fees. Delivery care services generate user fees” (p15). At the same time, the data in Table 14 show that most health care facilities in the country, be it government-, NGO- or private-run, do charge some formal user fees.

Upon a closer reading of the available literature, one might reasonably attribute the apparent contradiction to the lack of knowledge on the part of both health care providers and some maternal care seekers, about what the government policy really is. For instance, Sharma *et al* (2005) revealed that ‘less than half of providers [in Kenya] were aware that antenatal care services were exempt from user fees for clients’ (p.vii). Not only that, they (Sharma *et al*, 2005, vii) noted from their focus group discussion that “all participants were aware that antenatal care service were free for all but the first visit; however none of the respondents knew that the fee for the first visit could be waived.” Any encounter with Kenya’s system of fee waiver will also show that it is hardly automatic: the patient must first request a waiver and wait for a formal response based on set criteria (Sharma *et al.*, 2005, 14).

Table 14: Maternal Care in Kenya: Facilities with User fees and the Emergency Transportation.

	Percentage of facilities that charge user-fees for antenatal care	Percentage of facilities with transportation for maternity emergencies.
Type of facility		
Hospital	80	91
Health center	67	42
Maternity	100	59
Clinic	100	-
Dispensary	61	9
Managing authority		
Government	53	16
NGOs	43	87
Private(for-profit)	76	37
FBOs	95	37
Province		
Nairobi	87	34
Central	77	33
Coast	67	26
Eastern	69	22
North Eastern	20	29
Nyanza	84	26
Rift Valley	52	21
Western	57	46

Source: Kenya NCAPD *et al.* 2005: Kenya Service Provision Assessment Survey of 2004, Tables 6.4 and 6.5).

That Kenyan women pay user-fees for even antenatal care (Table 14), should not be very surprising, given the way the waiver system works: the first visit attracts a fee; although subsequent visits are free, some health care providers are not even aware of the exemption policy, and some pregnant women are not aware of their waiver rights. The universal problem of bribery and unauthorized fees in Kenya (Oppong and Oppong, 2004) compounds the problem and could easily put the cost of maternal care beyond the reach of many poor women. Sharma (2005) reported that “29 percent of poor women in Kenya had no antenatal care during their last pregnancy, and 85% of poor women delivered at home.” Nevertheless, sizeable proportions of health facilities offer emergency transportation in support of maternity emergencies (Table 14). Whether this service is provided free or not is not clear from the available literature.

User fees may have either a positive effect on utilization of health facilities (by increasing the funds available to the facility) or a negative effect (by deterring poor clients from using services). Posting user fees is a good standard for quality of care, since clients are able to know exactly the cost of services. Approximately two-thirds of facilities charge

some form of user fees for ANC. All maternities and clinics charge user fees, and facilities in Nairobi and Nyanza provinces are more likely than facilities in other provinces to charge fees for ANC services (87 and 84%, respectively). Only 20 percent of facilities in North Eastern province charges user fees, despite the fact that fewer facilities in this province offer ANC services. Approximately 2 in 10 facilities charge user fees specifically for client consultations by resident providers; these are mostly private for-profit facilities, FBO-managed facilities, and facilities in Nairobi province. A very small proportion of facilities (mostly private for-profit and FBO-managed) charge for client consultations by consultants, and about one-fourth charge user fees for laboratory tests and iron tablets. About 4 in 10 facilities have fixed fees for all ANC services.

7.3.1. Maternal Health Status and Utilization

Complications related to pregnancy and childbirth is a leading cause of morbidity and mortality among Kenyan women. Recent estimates suggest that there are 414 maternal deaths per 100,000 live births, representing a 1 in 25 lifetime risk of dying from a maternal-related cause (KDHS 2003). Hospital based studies suggest that the majority of these deaths are due to obstetric complications, including hemorrhage, sepsis, eclampsia, obstructed labor, and unsafe abortion. Unsafe abortion practices alone are thought to cause at least a third of all maternal deaths.

Kenyan women's use of maternal health services is higher than in many other African countries. The KDHS 2003 found that 88 percent of women make at least one antenatal care visit, 31 percent make two or three visits, and more than 52 percent make four or more visits. However, the majority of these women seek antenatal care relatively late in pregnancy; the median gestation at first visit is 5.9 months.

Delivery within a health facility or with a skilled attendant is much less common than antenatal care. Only 42 percent of women have a skilled attendant present at delivery, while 28 percent of women deliver with a traditional birth attendant (TBA). Slightly over one-fifth deliver with a relative; and nearly one-tenth of women deliver entirely alone. The majority of the deliveries with a skilled attendant occur in health facilities. Overall, 26 percent of all deliveries occur in public health facilities, and three out of five births occur at home.

The National Reproductive Health Strategy for 1997 (Ministry of Health, 1996) has two principal maternal health objectives: to reduce maternal mortality to 170 per 100,000 live births by the year 2010, and to increase professionally attended deliveries to 90 percent in the same time period. The objective is to help health facilities in various areas manage pregnancy-related complications, unsafe abortion, and newborn care, and to establish a functional referral system.

Some improvement in maternal health is being achieved. According to the 2003 KDHS, the national maternal mortality rate has declined from 590 maternal deaths per 100,000 live births in 1998 to 414 maternal deaths per 100,000 live births in 2003. However,

Millennium Development Goal (MDG) No. 5 is to reduce maternal mortality rate to 175 maternal deaths per 100,000 live births or less. Much still needs to be done to achieve the MDG target.

7.3.2. Availability of Delivery Services

Although about 8 in 10 facilities offer ANC, only about 38 percent of facilities offer normal delivery services; one-third offer both ANC and normal delivery services. Hospitals are most likely to offer delivery services; NGO-managed facilities are more likely than others to offer delivery services. FBO- and government-managed facilities, and facilities in Central province, are least likely to offer these services.

Caesarean sections are offered by only 7 percent of eligible facilities, typically hospitals (76 percent). Only 3 percent of government-managed facilities offer caesarean sections (a decline from 15 percent in 1999), compared with 23 percent of private for-profit facilities. Among eligible hospitals, 67 percent of those providing caesarean sections are government-managed, 78 percent are NGO-managed, and 86 percent are private for-profit facilities (data not shown).

One way of increasing access to emergency obstetric care is to offer rapid transport to a facility where the needed service is available. Without a facility-supported emergency transportation system, the expectant mother and family are forced to use their own means of transport during an emergency. Even when a facility does not offer delivery services, but does offer ANC, it is desirable to have emergency transport available. For many home deliveries, the facility where a woman receives ANC may be the nearest formal health sector site from which emergency help can be sought.

Only 27 percent of all facilities have a system of emergency transportation to another facility for obstetric emergencies. Hospitals are more likely (91 percent) than other facility types to have an emergency transportation support for maternity emergencies, as are NGO-managed facilities (87 percent). Approximately 4 in 10 maternities do not have emergency transport services available. Among those facilities supporting emergency obstetric transport, 62 percent have an ambulance or other facility based vehicle, 19 percent have other arrangements to support cost, and 5 percent are themselves referral sites. Among facilities offering delivery services, however, 52 percent have an emergency transportation system in place for obstetric emergencies (data not shown). This is a modest improvement since 1999, when 47 percent of facilities providing delivery services had a driver and vehicle.

7.3.3. Newborn Care Practices

The perinatal mortality rate (PNMR) in Kenya is 40 deaths per 1,000 births (KDHS 2003), with the Coast province having the highest rate and Western province the lowest. The KSPA 2004 assessed newborn care practices and the availability of equipment and supplies for newborn care. Facilities sometimes need special equipment to support the newborn. KSPA observers noted whether facilities had an emergency respiratory support unit and an external heat source to maintain the infant's body heat, especially in a

premature newborn (incubator, heat lamp, or other device). Details on emergency support for newborns and on newborn care practices (excluding care of the umbilical cord) are provided. Only 39 percent of eligible facilities had an Ambu bag for newborn.

In conclusion, while economic access to maternal care may be a factor in poor birth outcomes, the generally poor health infrastructure appears to be a much bigger problem.

8. The Case of Ghana

8.1. The Health Care System and its Financing

For governance and administration purposes, Ghana is divided into ten Regions, which are in turn subdivided into a total of 138 Districts. The nation's health care system is hierarchically structured around the administrative regions and districts. There is a major hospital in each regional capital, below which are several District Hospitals, sub-District Health Centers or Polyclinics, and Community-Based Health Planning Services (CHPS) zones, in a descending order of administrative power and order of services (Heyen-Perschon, 2005, 12). At the CHPS zones, a small health facility is usually located in one village to cover the healthcare needs of 5 to 10 villages, under the auspices of a Community Health Officer (CHO), with the assistance of a professional nurse, auxiliary nurse, midwives, and one or two Community Health Volunteers (CHV). At present only a handful of Community-Based Health Planning Services are established and operational in the country (Heyen-Perschon, 2005, 12).

Like Kenya, Rwanda, and Tanzania, Ghana, at the time of independence, had a healthcare system that provided 'free' medical services in public health institutions to all citizens. However, with time, population increase and economic decline undermined the government's ability to fully fund the nation's healthcare system, hence the resort to a user-fee system by 1985. A *cash-and-carry* system with drugs charged at full cost to patients was introduced in 1990 as part of the nation's reforms under its IMF- World Bank-sponsored Structural Adjustment Programs (SAPs). Notable exception to the *cash-and-carry* system included entitlements to free medical services for antenatal care, for children less than 5 years, for adults of 70 years and over, and for emergency health situations where patients could not immediately pay for the services.

The introduction of the *cash-and-carry* system had a negative impact on the utilization of health services. Paying out-of-pocket for health services in times of need did impose a serious, and sometimes catastrophic, strain on many individuals and families' budget. Healthcare became unaffordable to the vast majority of the population, especially those in rural Ghana with no regular income. The incipient NHIS, introduced by the government in 2003, is to make healthcare services available and affordable to all Ghanaians.

8.2. Health Insurance in Ghana

8.2.1. *The Ghana National Health Insurance Scheme*

Formal health insurance is fairly new in Ghana, even though traditional, informal networks of social capital and solidarity have existed around health care and other emergencies such as bereavement for decades. Troubled by the growing inequities of the *cash-and-carry* system of healthcare delivery, The National Patriotic Party (NPP) sought to end the system when they came to power in 2000, and to replace it with the incipient National Health Insurance Scheme (NHIS).

After a series of consultations with Ghana's international health development partners—notably, the WHO, DANIDA, DFID, and ILO¹⁰—as well as with relevant national agencies (e.g., and Ministry of Health and NGOs), the government realized that it would not be feasible to establish a single insurance fund, given that about 70% of the Ghanaian workforce is in the informal sector, and about 40% of the nation's population lives below the poverty line (Government of Ghana, 2000), and were incapable of paying the high premium a single, rigid system would ultimately entail. Thus, traditional mechanisms of communal contributions needed to be explored and incorporated into the design and implementation of any new health insurance scheme. A Ministerial Task Force on Healthcare Financing was established in March of 2002 to conduct further studies and recommend an appropriate scheme for Ghana. The Task Force's recommendations were submitted to Parliament in 2003, culminating in the passing of the National Health Insurance Act of 2003 (*Act 650*), and the official birth of the NHIS.

The stated mission of the NHIS is “to ensure equitable universal access for all residents of Ghana to an acceptable quality of essential health services without out-of-pocket payment being required at the point of service use” (Ghana Ministry of Health, 2004a). It is reasoned that the new system would protect all Ghanaians from the problem of having to come up with money for medical care at the time when a person is sick and, most vulnerable. The goal is to ultimately eradicate the cash-and-carry system, by gradually replacing it with the new NHIS. The Ghana NHIS is modeled around the existing Community-based health insurance schemes, with minor variations to accommodate other forms of health insurance in the country. *Act 650* identifies three major types of health insurance in the country. These include:

- (a) *District Mutual (or Community-based) Health Insurance Schemes*: These operate across a district with membership opened to all residents of the district.
- (b) *Private Commercial Health Insurance Schemes*: These are private for-profit schemes that are not restricted to a particular Region or District of Ghana. Membership is, thus, open to all Ghanaians residents in that area;
- (c) *Private Mutual (Community-based) Health Insurance Schemes*: These are made up of a group of people—by way of club, a church, or any other organization—who come together to form their own mutual health insurance schemes; usually membership is open to only members of the organization concerned.

All these schemes have to register with the government to be able to operate legally in the country. The government provides direct financial support only to the District Mutual Health Insurance as part of its ongoing Poverty Reduction Strategy. Community-based District Mutual Health Insurance Schemes constitute the bedrock upon which the government is building its national health insurance program.

Ghana's NHIS is regulated by the National Health Insurance Council (NHIC) headquartered in Accra, the national capital. Regional and District offices of the NHIC are being set up to decentralize the operations of the NHIS. The Council manages the National Health Insurance Fund (NHIF) through the collection, investment, disbursement, and administration of the NHIS. The Council also undertakes the licensing, regulation, and accreditation of health providers. At the District level, there are Health Insurance Assemblies which comprise all members of the respective District schemes in good standing.

NHIS premiums are generally based on clients' ability to pay. Community Insurance Committees identify and categorize residents into four social groups—i.e., the *core poor*, *the poor*, *the middle class* and *the rich*—and vary their respective contributions accordingly. The *core poor*¹¹ (or the indigent) and people who are 70 years or more, and former Social Security and National Insurance Trust (SSNIT) contributors on retirement are exempted from paying any premiums.

While premiums vary slightly from district to district, generally members pay no less than ₵72,000 cedis (or New GH¢ 7.2; about US\$8.00¹²). For members in the formal sector, 2.5% of their contribution to SSNIT is deducted monthly as their health insurance premium. Thus, workers in the formal sector become automatic members of the NHIS, but they still have to register with their respective District Mutual Health Insurance Schemes. Those in the informal sector, or those who are self-employed, pay between ₵72,000 and ₵480,000 depending on income. The government has also introduced a 2.5% sales levy to fund the NHIS. Other notable sources of funding include government budget allocations and donor contributions (Sabi, 2005). All contributors' premiums cover their children and dependents below 18 years of age.

The benefits package of the NHIS include general out-patient services, in-patient services, oral health, eye care, emergencies and maternity care—including prenatal care, normal delivery, and some complicated deliveries. Only specialized services, such as HIV antiretroviral drugs, VIP accommodations etc., are excluded from the health insurance package. According to the Legislative Instrument (LI) which accompanied *Act 650*, about 95% of all essential or common health problems in Ghana are covered (Ghana Ministry of Health, 2004a and 2004b).

Data from Ghana NHIS headquarters in Accra indicate that by June 2007 some 9.5 million Ghanaians, or 47% of the total national population of 20.4 million, had registered for the NHIS. The largest numbers of enrollees, in absolute term, are in the Brong Ahafo Region (1.4 million), the Eastern Region (1.2 mil), and the Northern Region (1.0 million). Of the total enrolled, some 4.1 million (or slightly more than 40%) are children

under 18 years, 714,317 (or 7.4%) are over 70 years, and 186,992 (or 1.9%) are indigent, all of whom are essentially exempted from premium payments. The impact of these exceptions on the Scheme's finances can hardly be ignored in any analysis of its long-term sustainability (Table 11).

Table 15: Ghana National Health Insurance Scheme: Summary of Operational Status Report, June 2007

Region			FULL MEMBERS						
	Pop	Total Registered	Informal (Fully Paid)	Exempt Group					Membership (Fully Paid + Exempt group)
				SSNIT Contributors	SSNIT Pensioners	Children Under 18yrs	Aged 70 yrs and Over	Indigent	
Ashanti	3,924,425	2,008,002	377,317	167,925	18,424	755,192	135,692	16,754	1,468,946
Eastern	2,274,453	1,161,071	277,102	94,066	11,714	559,911	95,215	20,537	1,127,640
BA	1,968,205	1,417,540	456,386	74,303	4,764	711,057	91,578	27,927	1,326,455
Central	1,687,311	934,894	100,331	86,335	10,896	450,926	68,114	13,826	664,998
Western	2,042,340	826,340	158,714	91,061	5,677	434,146	35,149	6,372	724,219
Upper West	561,866	261,443	64,306	13,699	4,788	134,975	34,876	7,550	237,568
Upper East	963,448	366,702	58,030	28,738	6,265	128,284	43,485	24,967	291,302
Northern	1,790,417	1,029,593	130,859	110,917	23,273	443,715	82,363	37,087	826,194
G Accra	3,576,312	861,414	222,381	207,935	14,376	304,630	44,839	18,013	773,414
Volta	1,636,462	726,021	73,525	47,639	8,133	242,570	83,006	13,959	474,592
Total	20,425,239	9,593,040	1,927,951	922,574	108,310	4,165,406	714,317	186,992	7,915,328

Source: Ghana National Health Insurance Scheme, 2007

8.3. Maternal Health Care: Cost, Financing and Insurance Protections

Few studies have examined the costs of maternal health services in developing countries, and fewer still have included any Sub-Saharan African countries in their analysis, making the USAID-funded work of Ann Levin and her colleagues worth reporting here. In this study, Levin *et al.*, (2000) examined the provider and consumer costs of maternal health in Ghana, Malawi, and Uganda, with data from health centers, hospitals, community practitioners, and traditional birth attendants (TBAs) in selected regions of the respective countries. In the specific case of Ghana, the data were derived from the South Kwahu District of the Eastern Region. Levin *et al.*, (2000) divided the costs of maternal intervention into two main categories: (a) costs of supplying services to the consumer (e.g., costs of personnel, drugs, supplies, utilities, maintenance, repair and cost of equipment and other capital expenditure, and (b) costs to consumers, such as travel and waiting time, transport fees, service user fees, and other expenditures such as for the purchase of drugs and supplies. While these costs are part of the total costs, it is reasonable to separate them, they argue, because of their different implications on health care financing. Among the key findings on Ghana, as per our present interest, are the following:

- The unit cost of antenatal health care ranged between \$2.97 and \$5.45; for vaginal delivery, \$7.66-\$14.60; and for obstetrical complications, \$37.57 - \$92.94 (Table 16).
- Material costs comprised a large proportion of the unit costs of maternal health services; they actually made up a larger percentage of the total costs than did labor in most routine services (Table 16).
- The costs of antenatal care for Ghanaian women ranged between \$0.62 and \$3.13; and for vaginal delivery, \$12.52 - \$20.64 (Table 17).
- For routine services, client costs were generally higher at the hospitals than at health centers, due to higher user fees in some case as well as greater travel costs—the latter is in turn attributable to the fact that hospitals are generally farther apart than health centers.
- Client costs were greater for the treatment of obstetrical complications—service offered only in hospitals. This was particularly so for cesarean sections which cost anywhere from \$68.39 to \$139.58 (Table 17).
- User fees, travel costs, and other costs were all, understandably, higher for obstetrical complications than for routine services.

Table 16: Unit Costs of Routine Services and of Obstetrical Complications by Type of Facility

Services	Hospitals		Health Centers	
<i>Routine Services</i>	Public	Mission	Public	Mission
Antenatal Care				
Labor	0.77 (14.1) ¹	0.40 (13.5)	0.52 (16.4)	0.62 (14.9)
Materials	2.59 (47.5)	2.09 (70.4)	1.94 (61.2)	2.37 (58.8)
Indirect Costs	2.09 (38.3)	0.48 (16.2)	0.71 (22.4)	1.06 (26.3)
TOTAL	\$5.45	\$2.97	\$3.1	\$4.03
Vaginal Delivery				
Labor	2.02 (13.8)	1.88 (15.8)	1.03 ² (13.4)	1.40 ² (14.4)
Materials	7.57 (51.8)	7.26 (61.0)	2.76 (36.0)	5.40 (55.4)
Indirect Costs	5.01 (34.3)	2.75 (23.1)	3.87 (50.5)	2.94 (30.2)
TOTAL	\$14.60	\$11.89	\$7.66	\$9.74
<i>Obstetrical Complications</i>	Public Hospital		Mission Hospital	
Cesarean Section				
Labor	\$21.55 ² (14)		\$8.65 (16)	
Materials	51.20 (58)		38.02 (68)	
Indirect Costs	25.08 (28)		8.93 (16)	
TOTAL	\$88.83		\$55.60	
Post-abortion Complications.				
Labor	5.00 ² (8)		2.40 ² (4)	
Materials	43.55 (66)		41.80 (65)	
Indirect Costs	17.91 (27)		19.68 (31)	
TOTAL	\$66.46		\$63.88	
Postpartum Hemorrhage				
Labor	29.69 ² (32)		3.35 ² (9)	
Materials	36.48 (39)		25.78 (69)	
Indirect Costs	26.77 (29)		8.44 (22)	
TOTAL	\$92.94		\$37.57	

¹Figures in parentheses are percentages²Estimate is based on recall rather than observationSource: Levin *et al.* (2000, Tables 5 and 6).

Table 17: Costs to Clients: Antenatal Care, Vaginal Delivery, Cesarean Section and Other Obstetrical Complications in Hospitals

Services	Hospitals		Health Centers	
<i>Routine Services</i>	Public	Mission	Public	Mission
Antenatal Care (<i>N</i>)	(39)	(40)	(19)	(18)
User fees	\$2.40	\$2.40	0.47	0.65
Travel costs	0.64	0.64	0.15	0.08
Other costs	0.09	0.09	0.00	0.05
Average Total cost/client	\$3.15	\$3.15	0.62	0.78
Vaginal Delivery (<i>N</i>)	(2)	(9)	NA	NA
User fees	11.77	18.10	NA	NA
Travel costs	0.75	1.35	NA	NA
Other costs	0.00	1.19	NA	NA
Average Total cost/client	12.52	20.64	NA	NA
<i>Obstetrical Complications</i>	Public Hospital		Mission Hospital	
Cesarean Section (<i>N</i>)	(3)		(2)	
User fees	66.97		\$117.50	
Travel costs	1.25		11.67	
Other costs	0.14		10.42	
Average Total cost/client	\$68.39		\$139.58	
Other Obs. Complications (<i>N</i>)	NA		(4)	
User fees	NA		8.39	
Travel costs	NA		1.13	
Other costs	NA		1.93	
Average Total cost/client	NA		\$11.44	
Postpartum Hemorrhage				
Labor	29.69 ² (32)		3.35 ² (9)	
Materials	36.48 (39)		25.78 (69)	
Indirect Costs	26.77 (29)		8.44 (22)	
TOTAL	\$92.94		\$37.57	

Source: Source: Levin *et al.* (2000, Tables 11 and 12).

Perhaps blindsided by the official declarations of free maternal care in Ghana, some analysts have studied the uptake of maternal care without considerations of costs. A case in point is the work of Addai (2000) which examines the factors that determine the propensity to seek maternal-child health services in rural Ghana. The dependent variables used in his various logistic regression models included the following four: use of a doctor for prenatal care; soliciting four or more antenatal check-ups; place of delivery; and participation in family planning. The astounding feature of this study was the absence any direct measure of cost or income among his predictor variables, which included measures of ethnicity, religions, age, regions of residence, occupation, and education. He found

education and religion to be the leading predictors of maternal and child health service utilization among the Ghanaian women. Not surprisingly, given his focus on rural women (and the ubiquitous lack of health care service in rural Ghana), region of residence did not play a major role in predicting the uptake of maternal and child health care services among his respondents. In Overbosh *et al.*, (2003) where costs and income variables were considered, it was found that household income, distance to health facilities and charges for services had significant, negative bearing on the uptake of antenatal care services among Ghanaian women.

In 1998 the Government of Ghana instituted a free antenatal care regime for pregnant women, and “in September 2003, a policy of exempting all users from delivery fees in health facilities was introduced” (Biritwum, 2006, 78). Thus, financial barriers to the use of antenatal care and delivery care in public and even private facilities are officially eliminated, according to Biritwum (2006, 78). Also, the NHIS offers pre- and post-natal care, normal deliveries, and many even cover complicated deliveries. What then are the media reports on “...Newborn babies [being] detained in hospital pending payment” all about (*Political Affairs Magazine*, 2005: September-October, 12-18).

In a report in the *Political Affairs Magazine*, one reads of a situation in Accra involving women whose babies are detained in the nation’s premier hospital, the Korle-Bu Teaching Hospital, for failing to pay for the cost of delivery. The case of one 28-year-old Gifty Torto was extensively covered in this piece, to the effect that she owes close to ₵3,000,000 (or New GH₵300; roughly some US\$340), and for that her new-born baby had been detained in the hospital. Ms. Torto, who had been discharged three weeks earlier (without her baby), had to go to the neo-natal intensive care unit of Korle Bu about twice daily to care for her ‘detained’ baby. The report observed that some 74 women in the neo-natal ICU were unable to pay.

Upon further investigation, the report noted that even though deliveries are covered by the NHIS in addition to the exemption policy of the Ghana government, this is implemented only at the district level of care, where the cost is not that exorbitant. At the Korle Bu Teaching Hospital, the cost is about three times that of the district hospital, and women are generally expected, or supposed to, use the district facilities for delivery, and not the high cost, state-of-the-art health care facilities at Korle Bu (*Political Affairs Magazine*, 2005: September-October, 12-18). However, given that most of the women who came to Korle Bu were there as a result of delivery complications and consequent referral from District hospitals, the main issue becomes whether complicated deliveries are covered (i.e., under the NHIS or by the government’s exemption policy) or not, for the state-of-the-art facilities at Korle Bu has to be used one way or the other. But then, the question becomes *who pays for what, and when?*

In a similar vein, a recent editorial in the *Ghanaian Times* (Thursday, September 6, p.4) entitled “A Problem for the NHIS” writes about people who are refused treatment at hospitals because they hold NHIS card. It appears from the story that some health providers prefer to treat those who are prepared to pay on the spot, or out-of-pocket, to those holding NHIS. The apparent reason is that for NHIS clients the health provider has

to do a considerable amount of time-consuming paperwork to get paid in a later time—something some health providers are unprepared to do (*Ghanaian Time*, Thursday, September 6, p.4). It is important to note, even if parenthetically, that the Korle Bu Teaching Hospital was implicated in the *Ghanaian Times* story as well. Nevertheless Ghanaian women appear to enjoy better maternal outcomes compared to women in the other countries. Indeed, it is only natural that any such national program, especially one of a social caliber with distributional undertones, would encounter problems (and even some resistance and political backlashes) in its early stage. In the final analysis, though, given the mounting evidence linking out-of pocket payments of health care financing to catastrophic health spending by households (ILO, 2007), it is hard to argue against Ghana's move towards a national prepayment system of healthcare.

9. Main Findings in a Comparative Synthesis

Based on our stated research objectives, the major findings in comparing the health care systems, health insurances schemes, and maternal protections in Ghana, Kenya, Rwanda, and Tanzania are as follows:

1. All four countries had “free” health care systems in their immediate post-independence era, and moved towards user-fees and cash-and-carry systems following economic declines and upon adopting IMF- World-Bank sponsored Structural Adjustment Programmes in the early 1980s.
2. Health insurances—unlike auto insurance which is mandatory and strictly enforced—is fairly new in all four countries.
3. None of the four countries spend more than 5% of its GDP on health care. The total health expenditure (THE) as a percentage of GDP ranged from a low of 3.7% in Rwanda to a high of 4.5% in Ghana (Table 18).
4. OOP as a percentage of the health expenditure is sizeable in all the four countries with the biggest percentages recorded in Ghana (68.2%) and the lowest in Rwanda (23.6%).
5. Ghana leads all the four countries in formal health insurance coverage, with 47% of its total population of 21 million enrolled in the NHIS. Rwanda comes in second with 36.6%, followed by Kenya (25%), which instituted the first major health insurance scheme in Africa. Only 14.5% of Tanzania's national population of 37 million is covered by formal health insurance.
6. The premiums of the leading health insurance schemes in all the four countries are fairly small by Western standards, but placed in the context of Africa, they are sizeable, especially considering that many people on the continent earn no salary or income whatsoever and, therefore, have no means of paying any premium.

Some of the schemes, including the Ghana National Health Insurance Scheme and the Community-based *Mutualles* in Rwanda, have exemptions for the poor.

7. Maternal protection is taken seriously in all the four countries. For the most part the governments, as in the case of Ghana, Kenya, Tanzania, have instituted exemptions and fee waivers for common maternal care (i.e., ante- and post-natal care, and simple delivery). Also, the main insurance schemes in all the four countries provide coverage for maternal care. At the same time, we must note that notwithstanding official declarations of fee waivers and exceptions for maternal care, women continue to pay dearly for maternal care, not only in official fees, and unofficial payments, but also in transportation and other personal, and opportunity costs.

Table 18: Key Indicators on Health Care and Social Health Protection for Ghana, Kenya, Rwanda, and Tanzania

Variable	GHANA	KENYA	RWANDA	TANZANIA
National Population (2003) ¹	21 million	32 million	8 million	37 million
THE ² as % of GDP ¹	4.5	4.3	3.7	4.3
OOP ³ as % of THE ¹	68.2	50.6	23.6	36.2
Formal Coverage ¹				
<i>Total out of national pop. (%)</i>	47.0	25.0	36.6	14.5
<i>State (%)</i>	Negligible	--	2.6	--
<i>Social Health Insur (SHI) (%)</i>	47.0	25.0	8.9	14.5
<i>Mutual Health Insur (MHI) (%)</i>	Now National SHI	Negligible	25.1	0.005
<i>Private HI; Co.; etc. (%)</i>	Negligible	--	--	--
Major Private and Public Health Insurance Schemes/Programs	NHIS; Private Mutuals; Private Commercial Health Insurance.	NHIF; Incipient National Social Health Insurance (NSHI).	MHI, FARG ⁴ , RAMA ⁵ <i>Gacaca</i> ⁶	NHIF, CHF ⁷ UMASIDA ⁸ , VIBINDO ⁹ , MEDEX ¹⁰
Main Health Insurance Scheme ¹⁶	Ghana National Health Insurance Scheme	National Hospital Insurance Fund	Community-Based Mutual Health Insurance	National Health Insurance Fund
<i>Main Characteristics</i>				
<i>Acronym</i>	NHIS	NHIF	<i>Mutuelles</i>	NHIF
<i>Eligibility</i>	Voluntary for informal sector, & the self-employed; mandatory for formal sector workers.	Voluntary for self-employed, informal sector; mandatory for formal sector workers.	Mainly voluntary and community-based.	Formal sector workers and their spouse(s) & 4 dependents.
<i>Size of Membership</i>	9.5 million people, or 46.5% of national population.	2.3 million people, or 6.2% of national population.	2.2 million people, or 25% of national population.	1.1 million people, or 3% of national population.
<i>Premiums & Exemptions</i>	Informal and the self-employed pay New GH¢7.2 – 48.0 ¹¹ ; formal workers pay 2.5% of SNNIT contribution. Core poor and elderly are exempted.	Informal workers and pensioners pay Kshs. 160 per month; formal workers pay Kshs. 30-320 ¹² per month. No exemptions.	Ranges between US\$1.20 – US\$2 per annum per person; and US\$7 to US\$10 ¹³ per household per yr. The poor are exempted.	6% of employee's salary (3% each paid by employee and employer). No exemptions.
<i>Benefits</i>	Out- and in-patient services, oral health, eye care, emergencies and maternal health care	In-patient services; admissions paid to a fixed amount and days: 180 days of hospitalization per year at Kshs 400-2200 per day.	All Minimum Package of Activities (MPAs) ¹⁴ and selected Complementary Package of Activities (CPAs) ¹⁵ .	Consulting fees, basic diagnostic tests, out- and in-patient services, medical investigations and surgeries.
<i>Maternal Protections</i>	Maternal care covered under NHIS; Gov't provides maternal care free of charge even outside the scheme. However women bear transport and other official fees and unofficial fees; catastrophic delivery cost is common.	The government purportedly provides 'free unfettered' maternal care through the Ministry of Health, but women still bear both official and unofficial fees; catastrophic maternal cost is common.	Maternal care and transportation to district hospitals are covered under the MPAs, but most <i>mutuelles</i> require co-payments. Poor women are, in principle, exempted from premiums, but they pay unofficial fees in practice.	Financed by the government for all women through a national maternal cost exemption regime. It is officially free, but there are several (un)official fees and travel cost to women; many women bear catastrophic cost.

Notes: ¹The data are derived primarily from ILO, Social Security Department, 2007. ²THE = Total Health Expenditure. ³OOP = Out-of-pocket payments. ⁴FARG = *Fonds d'appui aux rescapés du génocide* (or Genocide Survivors Support Fund). ⁵RAMA= *La Rwandaise d'assurance maladie*. ⁶*Gacaca* is a state-organized health insurance for

members of the public involved in a traditional conflict resolution tribunal in conjunction with the genocide.⁷ CHF=Community Health Fund. ⁸UMASIDA = *Umujo wa Matibabu sekta Isiyo Rasmi Dar es Salaam* (a mutual health insurance scheme in the informal sector). ⁹VIMINDO = *Vikundi vya Biashara Ndogondogo* (association of petty traders with health schemes). ¹⁰MEDEX = Medical Express (a Tanzanian-incorporated private health insurance company). ¹¹New GH¢0.93 is equivalent to US\$1.0. US\$1 (Nov. 2007). ¹²US\$1 is equivalent to 64.70053 Kenyan Shilling (Nov. 2007); ¹³US\$1 is equivalent to 545.20 Rwandan Franc (Nov. 2007). ¹⁴Rwanda's Minimum Package of Activities (MPAs) are health care provided at health centers; they include prenatal care, postnatal care, simple delivery, vaccination, family planning, nutritional services, curative consultations, nursing care, hospitalization, essential and generic drugs, laboratory test, minor surgical operation, health education, and transportation of patients to district hospitals (Republic of Rwanda, MoH, 2005 and 2004). ¹⁵The Complementary Package of Activities (CPAs) are health care provided at district hospitals; they include consultations with a doctor, hospitalization in rooms, eutocic and distocic childbirth, caesarean operations, minor and major surgeries, refereed serious malaria, all diseases of children under 6 years, medical imaging, laboratory analysis (Republic of Rwanda, MoH, 2005 and 2004). ¹⁶Information on the key features of the various social health protections is derived from various sources used for this paper.

8. Some women, as in the case of Kenya, continue to pay for maternal care, for which they are officially exempted, due to lack of knowledge on the system of waivers and exemptions. Others, as in the case of the Korle Bu Teaching Hospital in Ghana, continue to face catastrophic maternal cost because of apparent inconsistencies and ambiguities in the benefit package in their prepayment system. The lessons from the unfortunate incidents of detaining new-born babies at the Korle Bu Teaching Hospital for mothers' inability to pay is to streamline maternal care in such a way that there will be an increased use of services at the lower levels of the health care system, while reserving the use of high-end facilities for severe complications.
9. Maternal care uptakes were generally lower among low-income women wherever the available data on maternity intervention were disaggregated along income lines, as in the cases of Kenya and Ghana—drawing on the works of Sharma *et al.* (2005) and Overbosh *et al.*, (2003), respectively.
10. Similarly, maternal care uptakes were generally lower among women in rural areas, compared to their urban counterparts, as shown by the work of Quajada and Comfort (2002) in Tanzania, as well as that of Addai (2000) in Ghana, to a limited extent.
11. High, often unexpected, fees and out-of-pocket payments increase women's propensity to endure catastrophic health spending. Extreme case relates to the Ghanaian women whose new-born babies had to be detained for weeks, because of their inability to pay for their delivery complications and the neonatal care required by their children. It is clear from the preceding analysis that notwithstanding the official proclamations of free universal maternal care in countries such as Ghana and Tanzania, catastrophic health spending on maternity care is not uncommon, with many households being compelled to sell assets to pay for care. The same can be said of the existence of prepayment systems, when the benefits are too small.
12. At the level of theory, we must stress that a direct link between health insurance, or any prepayment system, on the one hand, and maternal health outcomes, on the other, is difficult to ascertain. None of the available studies was able to draw that causal connection with any degree of certainty. While it is intuitively appealing to expect an increase in access and utilization of maternal care services as a result of good prepayment system, one cannot stretch this argument to link health insurance coverage or a prepayment system directly with the reduction of say maternal mortality, due to confounding factors such as women's education, economic status, and geographic proximity to healthcare facilities.
13. Women do seek access to care for obstetric emergencies, but because of a variety of problems encountered, appropriate care is often delayed or unavailable. Disorganized health care with lack of prompt response to emergencies is a major factor contributing to a continued high mortality rate. Stories like the following from Tanzania are all too common but frequently end tragically.

Veronica Joseph began walking when she felt contractions. She delivered on the roadside five kilometers from the hospital. It is a wonder that her newborn, only a

few hours old, is fast asleep in his snug cloth cocoon. He has had a dramatic life up to now. "My mother helped. We put the placenta in a plastic bag and arrived at the hospital. But I feel fine," Joseph insists, speaking Tanzania's national language Kiswahili through a translator. Looking unruffled, she sits on the edge of the bed she shares with two other women and their infants in the cramped one-room maternity ward of the Dodoma Regional Hospital in Tanzania's capital city. Only a flimsy curtain separates dozens of resting new moms from the moans of those delivering in the adjoining labor room. Joseph intended to give birth to her still-unnamed son surrounded by healthcare providers who are trained to handle emergencies on the spot. "It is safer here than at my home." The decision is not so clear-cut for many other expectant women in the East African nation. Tanzania is ranked the fifth most dangerous place in sub-Saharan Africa for a woman to give birth, behind Sierra Leone, Niger, Malawi and Angola, according World Bank development indicators. For every 100,000 babies born alive in 2000, Tanzania saw an average of 1,500 women die during pregnancy, child labor or shortly after delivery, World Bank statistics show. That year, almost 21,000 women died after problems arose while they were pregnant. The situation had worsened from a decade earlier, when the maternal mortality rate was 770 per 100,000 live births and about 8,700 women had died due to complications during pregnancy (McGregor, 2007).

10. Best Practices

Few differences exist between the schemes. Ghana has the most broad-based system, embracing both formal and informal workers. A fairly similar scheme is found in Tanzania, but the latter covers only 14% of the national population, all of whom are formal sector workers and their immediate family members. Kenya's National Hospital Fund covers both formal and informal workers, but the benefits are limited to in-patient services. Kenya is increasingly moving towards a National Social Health Insurance scheme like the one Ghana.

Rwanda boasts of perhaps the most elaborate Community-based Mutual Health Insurance program together with many other health protection instruments—e.g., RAMA, FARG, and *Gacaca*.

Tanzania's insurance benefits cover some transportation costs for maternity, a clearly laudable effort. Unfortunately, Tanzania has the least coverage of all the countries studied. Rwanda has experimented with inclusion of emergency transportation services in the community based insurance schemes (Sharma et al., 2005). These need to be expanded to cover a wider population.

All the countries have exemptions for the poor but unfortunately they are poorly enforced. Rwanda appears to do a better job here, particularly since the co-payment amounts appear to be quite unambiguous. In contrast, Kenya's pervasive culture of corruption produces hidden fees and inflates user costs.

Ghana has the best maternal care indicators of the four countries studied (Table 19). For example, it has the lowest median months pregnant at first visit to an antenatal care facility, and 84.3% of

pregnant mothers satisfy the WHO recommended 4-5 antenatal care visits per pregnancy compared to 13.3% in Rwanda or 52.3% in Kenya. Similarly more Ghanaian women who deliver outside a health facility are more likely to receive post natal care than in any of the other countries.

Obviously, maternal health is inextricably linked to overall economic development. The Gross National Income (GNI) per capita expressed in Purchasing Power Parity (PPP) using US dollars was as follows: Ghana -\$2,190, Kenya -\$1,020, Rwanda - \$1,290, and Tanzania - \$610 (de Blij and Muller, 2006).

Table 19: Maternal Health Indicators for Ghana, Kenya, Rwanda, and Tanzania

Indicator	Ghana	Kenya	Rwanda	Tanzania
MMR (DHS)	214 (2003)	414 (2003)	750 (2004)	578 (2004)
Median months pregnant at first visit	4.0	5.9	6.4*	5.4
Urban	3.8	5.7	6.2	5.3
Rural	4.2	5.9	6.5	5.5
Number of ANC visits – None	1.2	9.6	5.4	3.0
1	0.9	4.2	13.0	1.7
2-3	8.3	31.3	68.1	33.4
4+	84.3	52.3	13.3	61.5
Percent deliveries attended by doctor	6.6	11.4	5.0	3.9
Percent deliveries attended by Nurse/midwife	40.5	30.2		39.5
Percentage delivered by trained health professional	47.0	42.0	38.6	46.3
Urban	80.0	72.0	63.1	80.9
Rural	31.0	34.5	34.6	38.0
Percent women with no postnatal care	53.2	80.0	95.2	82.6
Urban	39.4	78.9	92.2	71.3
Rural	55.5	81.0	95.5	83.6

11. Policy Implications

The preceding best practices and findings from our comparative synthesis have a number of policy implications, among which the following are noteworthy, based on our overarching research objective:

- Educate people on their entitlements, waivers, and exemptions in health care. There were instances, particularly in the case of Kenya, where the women seeking help, and even the healthcare providers, knew very little about the prevailing exemptions and fee waiver systems.
- Intensify public educational campaigns on social health insurance schemes, to educate the general public about the benefits of membership; this will boost people's willingness to pay. The fact that the introduction of national health insurance broadens the fiscal space of healthcare financing for the government needs to be stressed in these public educational campaigns. Citizens should be well-informed that their insurance premiums would not only help improve healthcare services for all, but also help target public funds to the healthcare needs of the poor. Permitting health facility administrators to use revenue from insurance contributions and user-fees for the enhancement of local facilities may be a huge incentive.
- Additional educational campaigns can target the providers of healthcare to sensitize them about the need for accountability and proper record-keeping. As we saw in the case of Ghana, there were health providers who refused to attend to NHIS members just because they did not want to do the paperwork implicated in that system of payment.
- Make the system of payment for any maternal care as transparent as possible; hidden fees, whether official or unofficial, make it difficult to plan for the already precarious circumstances surrounding the financing of maternal care at the household level.
- Embark on monitoring mechanisms to limit the level of informal payments to make the health care more affordable to the poor. For example, Kenya's failure to maintain a centralized fee-setting structure has provided an opportunity for health facilities to levy charges on services that are free by national policy (Sharma et al., 2005). Poor knowledge and awareness of the availability of free services compounds the problem of poor women not receiving exemptions.
- Extend the benefits to cover delivery complications and neonatal intensive care. There is no need to cover the routine delivery for which even the poor can manage to pay, and not cover complications which are real emergencies, and consequently uncertain, and the reason to obtain health insurance. It is inhumane to hold an infant captive due to poverty of their parents.
- Travel cost plays such an important constraining role in the procurement of maternal health care services that social health insurance schemes should seriously consider it in the setting of their premium and benefit package. As a corollary, government user-fee regimes should

also be adjusted to take into account transportation and other monetary and time costs to clients.

- Policy makers should take income redistribution vis-à-vis maternal care uptake seriously, by embarking on prepayment systems that give premium to cross-subsidizations, and matters of human rights, equity, and universal coverage, at expense of market-based considerations which tend to treat health care as any other commodity.
- In the final analysis, efforts to sustain affordable improvements in maternal care services can hardly be divorced from conscious attempts by governments to improve the health system as a whole. For example, using skilled and trained delivery care providers assures that all women have access to life saving emergency interventions at the time of labor and delivery. Despite efforts to train TBAs, the level of skill among “skilled traditional birth attendants” is lower than is considered “safe” by safe motherhood programs.

12: Suggestions for Future Research

- More effective indicators for maternal mortality are needed to permit a more accurate assessment of progress towards achieving MDG 5.
- Additional research is needed to determine more accurately the cost of maternal care. For example, we were not able to determine the exact cost of a normal delivery or c-section in Rwanda. Such accurate cost estimates are important for planning and also to gauge the relative impact of out of pocket expenditure for maternal care.
- The role of cultural factors in maternal care utilization needs to be unraveled. In Rwanda, to what extent is the late attendance at antenatal care facilities due to cultural practices and understandings rather than an indication of poor access to antenatal care?
- Research into more effective methods of providing emergency delivery services in sparsely populated rural areas is critically needed. Reducing delays in getting emergency care particularly in rural areas will improve birth outcomes.
- Finally, more research into the specific role of national/community-based health insurance in improving access and quality of maternal healthcare is needed to enhance the theoretical and empirical grounding for the much needed shift from OOP towards social health protections in maternal healthcare in the Developing World.

13. Concluding Remarks

Maternal care is as good as the overall health system; national health insurance schemes cannot make up for the poor quality of care that prevails in under-funded and poorly equipped health facilities. In Kenya for example, elements needed to support quality antenatal care are commonly lacking; only 10% of facilities have all the items needed for counseling, 37% have items needed for infection control, and 57% have all the items essential for providing basic antenatal care. Moreover, basic equipment and supplies recommended for any normal delivery are available in 1 of 3 facilities offering delivery services. About 60% of hospitals have all the basic medicines and

supplies for managing common complications of labor and delivery, but only 25% have medicines for managing serious complications (Godia et al., 2007). When facilities provide quality services, they become widely used and trusted by community members

Transportation is an important but often neglected component of maternal care. The best health providers in well-equipped facilities are little use when labor complications arise and emergency transport is lacking. In Kenya, for example, Sharma et al. (2005) report that the majority of antenatal clinic clients cited distance to the facility as the decisive factor in seeking or not seeking services. National health insurance systems should consider transport costs and make efforts to improve geographic access to health facilities.

Emergency transport systems are needed not just for maternal care, but for all health care. A simple, well-organized system for responding to medical emergencies is required. This will mean the difference between life and death for many people. One way of increasing access to emergency obstetric care is to offer rapid transport to a facility where the needed service is available. Without a facility-supported emergency transportation system, the expectant mother and family are forced to use their own means of transport during an emergency.

The content of antenatal care should be streamlined to assure its utility in reducing labor complications. In this regard, special efforts are needed to keep and maintain the supply of skilled midwives who provide most maternal care in rural areas. The combination of an aging midwife population, inadequate salaries, and few incentives to remain in rural areas all limit the supply of skilled providers who attend deliveries and pose challenges to reducing maternal and child mortality (USAID, 2006).

A clear designation of hierarchical systems is needed. Basic delivery facilities are more widely needed, but referral facilities should also be accessible, although less frequently needed, and the user fees should be streamlined. In fact recognizing that out-of-pocket costs for users of high level facilities are usually higher, such users need a higher level of subsidy.

Finally, there is not a simple and straight-forward intervention, which by itself will reduce maternal mortality significantly. Maternal mortality is inextricably linked to the health care system and cannot be improved in isolation from the context of health care. For example, emigration of health workers affects the totality of health care not just maternal care. Similarly, while there is consensus that skilled attendance at delivery reduces maternal mortality, without essential medicines and equipment skilled personnel in a poorly equipped health facility can do little to prevent maternal deaths. National health insurance schemes, by making maternal health care economically accessible and reducing catastrophic payments for delivery complications, can help to reduce maternal mortality, but insurance schemes alone, without the supporting health infrastructure including emergency transport and geographically accessible health facilities staffed by qualified personnel is unable to reduce maternal mortality for those who need it most—poor rural women.

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¹ Arguably, this delay was due to lingering ideological proclivities towards socialism.

² In the WHO Mother-Baby Package, antenatal care consists of: at least four visits of at least 20 minutes each, starting before the last trimester of pregnancy. Diagnosis tests include: hemoglobin, blood group, urine analysis and RPP syphilis test. Treatment covers: iron and folate supplements, 60mg three times a day for 90 days; two tetanus vaccinations; treatment of malaria and hookworm etc (Prata *et al.*, 2004, 1640)

³ The Bamako Initiative is a declaration adopted by African health ministers at a meeting in Bamako in 1987. The thrust of this initiative was for African leaders to embark of strategies to increased the availability of essential drugs and other health care services. In addition the initiative called of the decentralization of health care decision-making to local levels.

⁴ We must note, though, that Schneider and Hanson (2007) and Shepard, Carrin, and Nyandagazi (1993) trace the origins of a user-pay regime in health care in Rwanda to as far back as 1976.

⁵ The Abuja Declaration emerged out of a Special Summit on HIV/AIDS, TB and other infectious diseases held by the Heads of State and Government of the African Union in Abuja, Nigeria, in April of 2001.

⁶ We must note Musango *et al.* (2006, 98) put the number of these community-based MHI at 116 by December 2004.

⁷ It is very likely these authors included other mutuelles, such as the army mutual associations or even the *Fonds d'appui aux rescapés du génocide* (Genocide Survivors' Support Fund [FARG] in their estimation.

⁸ Complementary Package of Activities (CPA) are provided in district hospitals; they include consultation with a doctor, hospitalization in rooms; eutocic and distocic childbirth, caesarian operations, minor and major surgeries, referred serious malaria, all disease of children under 6 years, medical imaging, laboratory analysis etc.

⁹ Scheil-Adlung, Xenia *et al* 2007, put this figure at 7% which is not that much different.

¹⁰ The ILO, for one, continues to provide technical expertise to the Government of Ghana and other stakeholders on the Ghana National Health Insurance Fund. The ILO's collaboration with the Ghana Social Security and National Insurance Trust (SSNIT)—which culminated in a 2005 report on 'Health Insurance in Ghana,' set in the context of the ILO Global Social Trust Initiative—is worthy of note here (ILO, 2005).

¹¹ The NHIS defines the core poor as “adults who are unemployed and do not receive any identifiable and constant support from elsewhere for survival” (Republic of Ghana NHIS Brochure n.d., 6; Ghana National Health Insurance Council, 2007).

¹² In 2007, Ghana changed its currency from the old cedi (¢) to New GH Cedi (¢). One New GH¢ = 1000 old Ghana ¢. The exchange rate to the US\$ is now about US\$1=New GH¢0.93.