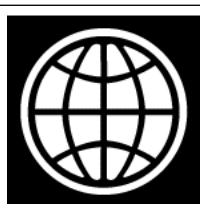


Health Financing in Ghana at a Crossroads

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Executive Summary

Introduction

This Report reviews Ghana's health financing system with a special emphasis on its National Health Insurance Scheme (NHIS). Such an assessment is important since Ghana is often considered a global 'good practice' as it is one of only a handful of African emerging market countries to actively start implementing universal health insurance coverage by providing formal coverage to its vulnerable population groups. Ghana's NHIS has evolved rapidly by transitioning its existing community health insurance schemes into a national health insurance program supported by significant amounts of earmarked national government revenues.

In addition to the global interest in the Ghana 'model', this review is timely in view of a recent critique of the system and call to abandon it in favor of a National Health Service (NHS) as well as the availability of several new and updated sources of information on: total health spending, inputs, outcomes, household spending, and the macro economy. The study also undertakes for the first time an extensive international benchmarking analysis; assesses the financial protection/equity of the system at both macro and micro levels; and, contains an extensive fiscal space analysis based on Ghana's new macroeconomic realities (i.e., a 60+ percent higher (Gross Domestic Product (GDP) as of November 2010).

Study Approach

The study focuses on structural and operational reforms of Ghana's health financing system in terms of its performance to date and future available fiscal space. The report addresses five key areas:

1. It provides the essential background on: demographic and epidemiological trends; the configuration of Ghana's health system, health financing functions and health systems goals; and, a brief description of Ghana's health financing system.
2. The study assesses the performance of Ghana's health system with respect to these goals through international comparisons of health outcomes, inputs, health spending, and financial protection as well as time series comparisons of trends in neighboring countries.
3. Based on this assessment and the significant body of Ghana-specific health policy literature, the report analyzes the strengths and weaknesses of Ghana's health system, thereby providing Ghana's health policy reform baseline.
4. The sustainability of the NHIS in the context of Ghana's future potential fiscal space, based on revised macroeconomic information positioning Ghana as a lower middle income country (LMIC), is analyzed.
5. Major structural and operational reform options for the NHIS to assure its long-term efficacy and sustainability are then discussed.

Key Messages

The analysis in the report generated the following key messages:

- The health financing system in Ghana in general is going in the right direction based on international good practices:
 - There is a clear movement away from supply side subsidies to demand-side financing.
 - The NHIS relies on diversified and progressive revenue sources and significant amounts of earmarked funding to assure coverage of vulnerable groups.

- The NHIS is functioning as a new unified health purchaser with a maturing strategic purchasing function that, while not adequately exploited now, has the potential to be a force for change and modernization in service delivery.
- There is evidence that the NHIS has reduced financial access barriers to health care, increased utilization, and has been pro-poor, although some equity issues remain.
- The system as it is operating now, however, has serious structural and operational inefficiencies and is on a trajectory to go bankrupt, possibly as early as 2013.
- Without major concurrent reforms, some of which are outside the purview of the NHIS, it is difficult to argue for major increases in funding because: (a) the system is too inefficient to absorb significant new resources in an effective way; and (b) Ghana's macro/fiscal consolidation is fragile, and new government funding commitments should only be taken very cautiously until the economy and fiscal situation are on more solid ground.
- Ghana's total health spending is slightly below average as a share of its GDP, while public health spending as a share of GDP is about average for its income level, but Ghana also seems to be getting less in the way of outcomes.
- Although modest increases in government expenditure on health will be possible as a result of economic growth and improved revenue collection measures, it is not likely that there will be large increases in revenues beyond what is proportional to GDP growth.
- Nonetheless, as a result of the earmarked National Health Insurance Levy (NHIL) and social security contributions the health sector (and NHIS in particular) will likely get at least its share of any new revenues, and slightly more as Ghana evolves to a middle income country and expands its share of GDP allocated to health.
- For the NHIS to expand enrolment and be sustainable, continued stable and modestly growing public resources will need to be allocated to the system. But most critically, fundamental reforms are needed in the coverage rules, basic benefit package, provider payment and cost control to assure efficient use of resources and bring expenditures into closer alignment with the currently available resources and Ghana's future fiscal space.

Health System Performance

The study found that population growth and structural changes will strongly impact Ghana's future health financing needs as well as the ability of the country to meet those needs. Ghana's population will increase by almost 40 percent by 2030, but the elderly population will increase by 90 percent. The burden of disease will continue to shift from communicable diseases to non-communicable diseases and injuries, although for the foreseeable future Ghana will need to deal with this dual burden of disease imposing significant costs on the health system. The large level of informality in the labor force, some 70 - 90 percent, and the preponderance of small firms, provide significant challenges to both revenue collection and enrolment in NHIS.

Assessing the performance of Ghana's health system in terms of basic health system goals painted a very mixed picture. As a result of Ghana's new macroeconomic situation, the results show a country whose total health spending as a share of GDP is slightly below the global average for comparable income countries, but also a country with fewer health sector inputs and somewhat poorer health outcomes for the monies spent. Ghana is unlikely to meet several of its millennium development goals (MDG) targets, and health spending has not increased as rapidly as most African countries over the 1995-2009 time period. However, since 2004, public health spending has

increased 11 percent faster than GDP and 15 percent faster than government revenues, although the share of the government budget dedicated to health is, like many other African countries, below the 15 percent Abuja target. Consumer satisfaction however is high, and access appears to have improved, including for the poor. Specific findings from the performance assessment are:

- Holding income and health spending constant Ghana performs worse than average with respect to under-5 (and infant) mortality and maternal mortality, but better than average for life expectancy.
- Over the past several decades Ghana's improvements in some health outcomes have been less impressive than several neighboring countries, despite starting from better levels.
- Ghana has fewer physicians and health workers per capita than other comparable income and health spending countries and a serious shortage of specialists.
- Ghana in 2009 has fewer hospital beds per capita relative to income and health spending comparators.
- Over the past several decades increases in hospital beds and physicians per capita have been lower than many neighboring countries, and since 1985 hospital bed growth has not kept pace with population growth.
- The country spends less than 5 percent of its GDP on health, which is slightly below average for a LMIC of Ghana's income level.
- Based on 2009 World Health Organization (WHO) national health accounts (NHA) information, 47 percent of total health spending is private and 37 percent is from out-of-pocket (OOP) payments, the remaining 10 percent is from private insurance and other private risk pooling mechanisms.
- Of the 53 percent public spending share, NHIS accounts for some 30 percent of public spending on health and 16 percent of total health spending.
- Ghana's public spending on health, depending on how it is measured, is either slightly above or about the same as other global income comparators.
- For its income level OOP spending (a gross measure of financial protection), depending on the specific measure used, either is higher than or about the same as other similar income global comparators, but double the recommended WHO thresholds.
- From an equity perspective, membership in the NHIS appears to have led to better utilization by the poor of health facilities and financing appears to be progressive, although enrolment and overall benefit incidence do not appear to be pro poor.

Health System Strengths and Weakness

Ghana's health system like those in all other countries has important strengths, but also faces major challenges:

Strengths

Governance, Management, and Organization

- The Government has in place the administrative and legal requirements for its decentralized governance structure.
- The Public Financial Management (PFM) system is adequate, clear, and meets most international requirements.

- Successive Common Management Arrangements (CMAs) provide an effective framework for relating to partners.
- The NHIS legislation (Act 650) strategically sets out an elaborate governance and administrative framework for the provision of health insurance.
- There are high levels of consumer satisfaction.

Delivery System, Pharmaceuticals, and Public Health

- There have been large increases in human resources for health (HRH) numbers and production of nurses, and the production of doctors is higher than many countries in the region.
- Exits from the labor market are largely due to retirement, not outmigration, since the 2006 salary increase.
- Informal payments are *reportedly* uncommon, although anecdotal evidence and the high out-of-pocket share of total health spending suggest further in-depth analysis of this issue is needed.
- The Ministry of Health (MOH) and Ghana Health Service (GHS) have developed a comprehensive approach to set priorities for investments, considering recurrent costs, human resource constraints, maintenance implications etc.
- Outpatient Department (OPD) utilization has increased significantly.
- Overall hospital use trends (for most categories) are positive with occupancy rates increasing from 45% to 60% and average lengths of stay decreasing from 4.5 to 3.8 days.
- A vibrant private sector is a major care supplier of all forms of non-hospital care and a significant supplier of hospital care.
- Ghana has a reasonable Essential Drug List (EDL) and good availability of drugs.
- Full immunization coverage has increased, HIV/AIDS prevalence is low, and Ghana is likely to meet the child nutrition MDG goal.

Financing

- Ghana is one of a very few emerging market countries to take serious steps toward demand-side financing for health, pass legislation for universal health insurance coverage, begin implementation by covering vulnerable groups, while significantly expanding enrolment, and earmarking substantial resources to support the system.
- The revenue base for Ghana's overall health financing system is largely progressive, and NHIS relies on a diversified set of largely progressive funding sources, resulting in significant and stable sources of revenues.
- Ghana's approach is pragmatically built on its existing system of community-based health insurance plans transitioned into DHMISs and is evolving toward a uniform national system.
- According to NHIS, active membership in 2010 is 8.16 million, some 34 percent of the population. Since 2005 outpatient visits have increased 23-fold, inpatient service use 29-fold, and expenditures by 40-fold.

Weaknesses

Governance, Management, and Organization

- The decentralized health sector faces a number of serious challenges, including potential inconsistencies between the Government's overall decentralization model of devolution versus GHSs model of deconcentration.
- Local authorities have little control over budget/expenditures because most of their resources are actually executed centrally or earmarked from the center to specific programs or initiatives.
- Other issues include: low health workforce ratios, health infrastructure deficits, equipment and transport deficits, Health Management Information System (HMIS) deficiencies, drugs procurement and the poor performance of the Central Medical Stores vis a vis financing, quality assurance, and logistics management.
- Poor coordination among the various regulatory agencies results in high drug prices and sub-standard drugs.

Delivery System, Pharmaceuticals, and Public Health

- Current health care provider densities are far below WHO recommended levels.
- There is an unequal urban-rural distribution of staff (especially high level cadres), inadequate total numbers, and a weak distribution of health workers to regions with high poverty levels.
- There are few incentives to ensure performance of health sector workers.
- Hospital occupancy rates have increased to 60 percent, but there is considerable inter-regional variation in occupancy, beds, average lengths of stay, and turnover, suggesting less than optimal allocation and use of this expensive input.
- Health infrastructure expansion is limited by:
 - inadequate financial resources
 - delays in the release of budgetary allocations, resulting in cost overruns
 - unplanned initiation of projects outside the capital investment plan
 - weak planned preventive maintenance
 - issues in the acquisition, distribution, installation, use of equipment.
- There is a need to strengthen district health and sub-district health systems with a focus on primary care.
- Ghana's MMR focus has been problematic and the country is unlikely to meet the MMR MDG goal; anemia is a major problem among women and children; the contraceptive prevalence rate is low and stagnant with high levels of unmet need; and, TB prevalence is high, stagnant, and there are large unmet needs.

Health Financing

- With current expenditure and expansion plans, the NHIS is not financially viable and is projected to be insolvent possibly as early as 2013.
- Premiums, taxes, and reinsurance payments for NHIS and to DMHISs are not actuarially determined, and premiums for informal sector workers are low relative to their costs.
- The original health insurance law does not require a necessary reserve fund.
- The basic benefit package (BBP) is heavily biased toward curative care; coordination with MOH vertical programs is poor; and, coverage of 95 per cent of the Burden of Disease (BOD) with no cost sharing may not be affordable.
- Lack of an effective gatekeeper system, an ineffective referral system, and misaligned provider payment incentives preclude NHIS from being an effective 'active' purchaser.
- Large numbers (e.g., perhaps on the order of 30 per cent) of the 65 per cent premium exempt members could afford to contribute.
- The stringent definition of indigent excludes some poor and near poor.
- Lack of a modern HMIS results in poor claims management and quality assurance, high administrative costs, and incomplete information on enrollees and providers.

Fiscal Space

Health reform options are constrained by Ghana's future available fiscal space. An extensive fiscal space assessment undertaken as part of this study indicates that economic growth and improved revenue collection efforts could provide modest but steady increases in fiscal space for health over the next three to five years. New fiscal space will only be possible, however, if enhanced revenue collection efforts are successful, and Ghana does achieve a collection rate of 20 percent of GDP by 2015.

Other than government resources for health that may become available from economic growth and better revenue collection and a significant change in government spending priorities, adding significant new expenditure burdens to the fragile macroeconomic and fiscal recovery is not realistic. Furthermore, prudent public policy indicates that countries should not raise additional revenues to increase spending on an inefficient base system. Thus, additional increases in resources for the NHIS are likely to have to come from within the system, and through efficiency gains from more rational expenditure patterns.

Reform Options

Based on the performance and fiscal space analyses, potential options to reform Ghana's health financing system are suggested. These reform options suggests that health financing policy in Ghana should focus on the following

1. At least maintaining the share allocated to the health sector of any new revenue, either from economic growth or improved revenue collection.
2. Ensuring that the full amount of commitments from all sources is transferred to the NHIF in a timely manner.

3. Optimizing the mobilization of resources *within* the NHIS through enforced means-tested premiums and possibly strategic copayments to both add to the revenue base and direct utilization toward more cost-effective services.
4. Re-visiting the NHIS eligibility and benefit package to be sure they are rational given the economic realities in Ghana. The comprehensive benefit package may be sustainable if it is combined with appropriate cost-sharing and serious provider payment/cost-containment reforms.
5. Embarking on an effective strategy of strategic purchasing within the NHIS to use provider payment systems and other purchasing tools to contain cost growth, improve the cost-effectiveness of service utilization, and drive greater efficiencies in the health system.
6. Addressing the severe operational inefficiencies within the NHIS particularly claims processing bottlenecks and the slow process of automation and HMIS modernization.
7. Addressing the inefficiencies in the health service delivery system, particularly high administrative costs and low health worker productivity.
8. It also is necessary to examine the large transfer of funds from the NHIS budget to the MOH. It is not clear why such large subsidies are being made back to the MOH, and whether the funds would be more effectively used to augment the demand-side financing and cover a larger share of the health system's operating costs through the provider payment mechanisms of the NHIS.

The report analyzes several reform options from re-engineering the NHIS to abandoning it in favor of a NHS. It argues that the fundamental design features and operational policies of NHIS actually have many of the advantages that are often attributed to a National Health Service (NHS) (e.g., progressive general revenue funding, coverage of vulnerable groups) and that current policy directions will embody NHIS with the basic advantages of a formal health insurance model in terms of strategic purchasing and purchaser-provider splits. The report argues that refining the structural and operational features of NHIS to assure its evolution as an effective public insurance organization is a much more sensible approach than going back to a fully general revenue-funded NHS with free care to all, provided through a publically owned and operated delivery system..

Specific policies for increasing revenues and improving expenditure efficiency are analyzed and discussed in the context of broader health systems' reforms. The following table summarizes these reform areas:

Structural Reform Areas and Options

Structural Component	Option
Eligibility for Premium Subsidies and Enrollment Changes	Focus on the Poor Change the Eligibility Unit Incentives to Encourage Enrolment
BBP	Extensiveness Cost Sharing Coordination with Vertical Public Health Programs
Revenues	Increase the Value Added Tax (VAT) Earmark Increase the Social Security National Insurance Trust (SSNIT) Contribution Sin Taxes Means Test Exempt Groups Levy a Onetime Premium on Members
Provider Payment Reforms	Implement payment systems that encourage efficiency, quality, cost-effective service utilization, and better coordination across the continuum of care. Options include the appropriate mix of capitation, other bundled payment systems, blended payment systems, various managed care approaches, and modern pay for performance systems

Pharmaceuticals	More rational reimbursement methods, including capitation for basic primary care medicines, bundling in Ghana Diagnosis Related Group (G-DRG) payments, reference pricing or other modern reimbursement methods Improve Information Systems and introduce incentives for rational use of medicines Update EDL Based on Medical Appropriateness Criteria Reduce expenditure for generic medicines through pooled procurement Copayments Consumer and Provider Education
Administrative Reforms	Data for Decision-making HMIS Centralize Control Other Operational Reforms
Other HSS Reforms	Public Health Physical and Human Infrastructure Governance

The NHIS is at a crossroads, and the Government needs to act decisively to assure the sustainability and efficacy of the system. In a short time Ghana has made substantial progress in transitioning the NHIS into a functioning health insurance program for a significant part of its population. However, its future is now dependent on strategic health policy choices and an effective transition to universal coverage. Those choices will determine whether the NHIS becomes an effective health insurance entity for the entire Ghanaian population and a true global ‘best practice’, or another stage in Ghana’s quest for universal coverage.

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Acronymns

BBP – Basic Benefits Package

BOD – Burden of Disease

CHAG – Christian Health Association of Ghana

CHPS – Community-based Health Planning and Services

CMAs – Common Management Arrangements

CMS – Central Medical Stores

CWIQ – Core Wealth Indicators Questionnaire

DRG – Diagnostic Related Groups

EDL – Essential Drugs List

GDP – Gross Domestic Product

G-DRG – Ghana Diagnostics Related Groups

GHS – Ghana Health Service

GoG – Government of Ghana

HMIS – Health Management Information System

HRH – Human Resources for Health

HSMTDP – Health Sector Medium Term Development Plan

LIC – Low Income Country

LMIC – Lower Middle Income Country

MDG – Millennium Development Goals

MOH – Ministry of Health

NCDs – Non-Communicable Diseases

NGO – Non-governmental Organizations

NHIA – National Health Insurance Authority

NHIF – National Health Insurance Fund

NHIL – National Health Insurance Levy

NHIS – National Health Insurance Scheme

NHS – National Health System

OECD – Organization for Economic Co-operation and Development

OPD – Outpatients Department

PFM – Public Financial Management

UC – Universal Coverage

SSA – Sub-Saharan Africa

SSNIT – Social Security National Insurance Trust

SWap – Sector Wide Approach

THE – Total Health Expenditure

UHI – Universal Health Insurance

U5 – Under five

VAT – Value Added Tax

WHO – World Health Organization

WHR – World Health Report

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Chapter 1 - Introduction

Background

This report reviews Ghana's health financing system with a special emphasis on its NHIS.¹ It focuses on broad structural financing issues and is an input into Ghana's 2011 Country Status Report (CSR) and the Government's ongoing health financing reform efforts. As health financing interacts with all other health systems components, this report also relies on the other CSR background reports completed to date as well as the prodigious literature on Ghana.

The intent of this report is not to replicate these other efforts, but rather to provide an up-to-date assessment of the Ghana health financing system given: (1) the rapid expansion of the NHIS since its inception in 2005 to covering over one-third of the population (2010 NHIS figures); (2) seemingly high levels of consumer satisfaction; and, (3) strong political and financial support from the government and donor community, but contradicted by a recent critique suggesting that the system is a failure and should be replaced by a general revenue funded National Health Service.² Moreover as a relatively lower income country that has opted for implementing universal health insurance coverage by scaling up its existing community-based health insurance plans into District Mutual Health Insurance Schemes (DMHISs) which are transitioning into a full-fledged national health insurance system, and earmarking a significant portion of its national revenues (some 5 percent) to support the system, Ghana is often cited as a 'good practice' example by the international community.³ Furthermore, the National Health Insurance Authority's (NHIA) vision is: 'To be a model of a sustainable and equitable social health insurance scheme in Africa and beyond'.⁴

This report also is timely as several new sources of data have become available including information on: total health spending, inputs, outcomes, household spending, and the macro economy (i.e., the significant November 2010 macroeconomic revisions). It also undertakes for the first time an extensive international benchmarking analysis; assesses changes over time in the financial protection/equity of the system at both macro and micro levels; and, contains an extensive fiscal space analysis based on Ghana's new macroeconomic realities.⁵

The report is divided into five sections. This introductory chapter provides the essential background on: demographic and epidemiological trends, the configuration of Ghana's health system, health financing functions and health systems goals, and a brief description of Ghana's health financing system. Chapter 2 assesses the performance of Ghana's health system with respect to these goals through international comparisons of health outcomes, inputs, health spending, and financial protection as well as time series comparisons of trends in neighboring countries. Chapter 3 discusses the strengths and weaknesses of Ghana's health system, which in effect determines Ghana's health reform baseline. Chapter 4 analyzes the sustainability of the NHIS in the context of Ghana's future fiscal space, based on revised macroeconomic information positioning Ghana as a lower middle income country (LMIC). Chapter 5 discusses major structural and operational reform options for NHIS to assure its long-term efficacy and sustainability.

¹ The NHIS is the term used to describe the health insurance system as a whole. The NHIA is the managing body for the NHIS, and the NHIF is the statutory fund where resources are accumulated to fund the NHIS.

² Apoya, P. and Marriott, A. (2011).

³ See WHR 2010 (2010).

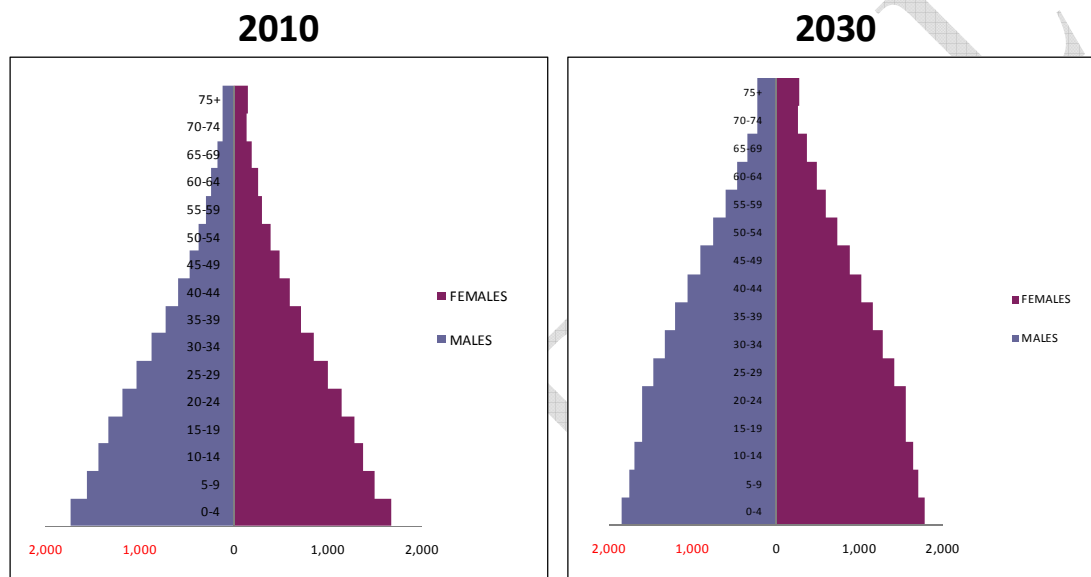
⁴ National Health Insurance Authority (2010), 2009 Annual Report

⁵ There are serious inconsistencies and problems with much of the publically available information on NHIS and health spending in Ghana. A recent report by Hendriks, R. (2010) highlights inconsistencies in registration information and underlying demographic information. Moreover Ghana has not done a full blown National Health Accounts (NHA) since 2002. Lack of modern HMIS and uniform data standards seriously compromise the validity of much of the available information needed for decision-making.

Underlying Demographics and Epidemiology

Ghana's underlying demographics and epidemiological situations are important determinants not only of the health systems future needs/demands but also the ability of its population to support those needs and demands (e.g., those in the productive working ages relative to the elderly and young). Figure 1.1 below shows the population pyramids for Ghana in 2010 and 2030.

Figure 1.1: Ghana population pyramids 2010 and 2030



Source: World Bank, HNP STATS, Accessed April 24, 2011

Ghana's population will increase from its 2010 level of 24.3 million to 33.8 million in 2030, an increase of 39 percent. However with declining birth rates and increasing life expectancy the percentage of the population below 14 will decrease from 38.1 percent in 2010 to 30.8 percent in 2030, while the percentage of the population over 64 years will increase from 3.7 percent to 5 percent by 2030. In 2030, there will be 90 percent more elderly than there were in 2010.⁶ Thus Ghana's health system and other social programs will need to grow to meet the increasing demands of its growing and structurally changing population.

Another important aspect of this changing population structure relates to 'population momentum'. As a result of Ghana's high past rates of population growth, large numbers of individuals will be entering the 'productive' labor force age ranges of 14-64, while relatively fewer will be born and relatively more will be entering the 64 plus age range. The dependency ratio – percentage of those 0-14 and over 64 relative to the 'productive' 14-64 population measures in effect the ratio of the number of dependents per productive (or labor force aged) member of the population. Ghana's dependency ratio will decrease from .72 dependents per productive member in 2010 to .56 in 2030 and continue decreasing until 2050, .51, and beyond.

This 'demographic benefit' from this falling dependency ratio will become a reality only if Ghana can productively employ these individuals. Employment possibilities, productivity growth, and revenue potential will also depend on

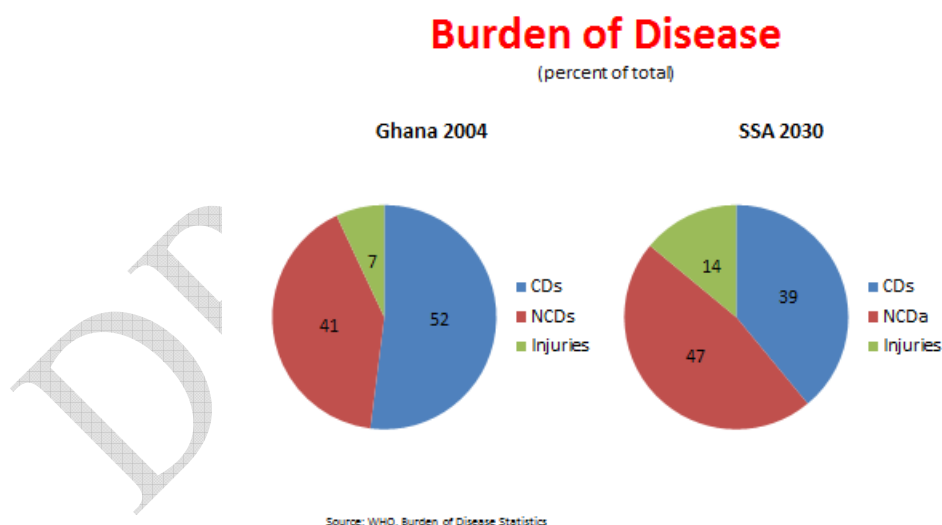
⁶ World Bank, HNP STATS, accessed 4/21/2011

the size distribution of firms as well as the level of informality in the economy. Currently, small firms, less than 5 employees account for 70 percent of business firms and as much as 70 - 90 percent of the labor force may be in the informal sector⁷. These factors are partially responsible for Ghana's current (and possible future) low revenue and premium collection efforts discussed below. If Ghana cannot productively employ those entering the labor force, this demographic transition could turn into a 'demographic curse' leading to lower growth, decreased tax revenues and NHIS premium income, and political unrest.

But in addition to this demographic transition in terms of numbers, there will be a changing disease pattern and burden resulting from these changes in the age structure, the epidemiological transition. Ghana now faces a dual disease burden of non-communicable (NCDs)/injuries and communicable diseases. Figure 1.2 below displays Ghana's disease burden in 2004 and the projected disease burden for SSA in 2030.

As shown in Figure 1.2, assuming Ghana follows the SSA trend; Ghana's Burden of Disease (BOD) will continue shifting from communicable to non-communicable diseases and injuries over the next 20 years. The communicable disease burden will decline from 52 percent to 39 percent, while the NCD burden will increase from 41 to 47 percent. Injuries and accidents will increase from 7 to 14 percent. NCDs and injuries are much more expensive to treat and require different health system inputs. In the absence of effective road and occupational safety, disease prevention, and health promotion strategies and much better coordination between MOH/GHS and NHIS, the epidemiological transition will exacerbate impending cost pressures, necessitate system's redesign, and significantly impact on the financing needs of Ghana's future health system. Similarly, the little discussed nutrition transition (malnutrition as a continuing serious problem along with increasing over nutrition) will exacerbate Ghana's future NCD burden. While not the focus of this report, these are important areas for Ghana's health reform agenda.

Figure 1.2: Burden of disease: Ghana and SSA



⁷ See Ghana Statistical Service and WIEGO, (2005) and Benzing, C. and Hung C. (2009).

Configuration of Ghana's Health System

Ghana has a well-developed integrated multi-level health system distributed throughout the country⁸, composed of community-based CHPS zones, health centers, district, regional and teaching hospitals, private health providers, and non-governmental health-related organizations. Figure 1.3 provides an overview of the system, while Figure 1.4 provides a detailed schematic of the service delivery system. The MOH is the overall steward for the system, which consists of public (GHS), NGO (CHAG) and other private providers, as well as the NHIA, and numerous governmental and regulatory entities at various levels of Ghana's highly decentralized health system.

There have been large increases in human resources for health (HRH) numbers and the production of nurses⁹, and the production of doctors is higher than in many countries in the region. Ghana has a vibrant private sector as a major care supplier of all forms of non-hospital care and a significant supplier of hospital care in several districts, largely in urban areas, producing more than half of all services used in virtually every category.¹⁰

On the other hand, there are serious management, organizational, and distributional issues¹¹; increases in critical health sector inputs have not kept pace with population growth or growth in neighboring countries; Ghana has fewer inputs than other income and health spending comparators; inputs are often not optimally used as partially evidenced by a 60 percent hospital occupancy rate; and, decentralization has confused roles and responsibilities. The Manpower, Private Sector, and Infrastructure background papers for the CSR provide in-depth assessments of these service delivery system issues as does the recent report by the Rockefeller Foundation¹². These matters are further analyzed below in the context of the full range of strengths and weaknesses of the Ghanaian health system.

⁸ See GHS (2010), *The Health Sector in Ghana, Facts and Figures 2009*.

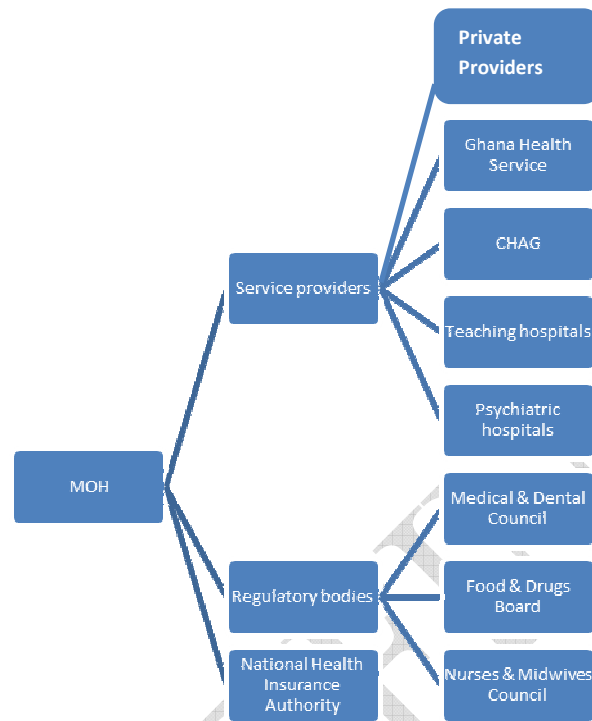
⁹ Appiah, A. et al. (2010).

¹⁰ Sealy, S. et al. (2010)

¹¹ GHS, op. cit.

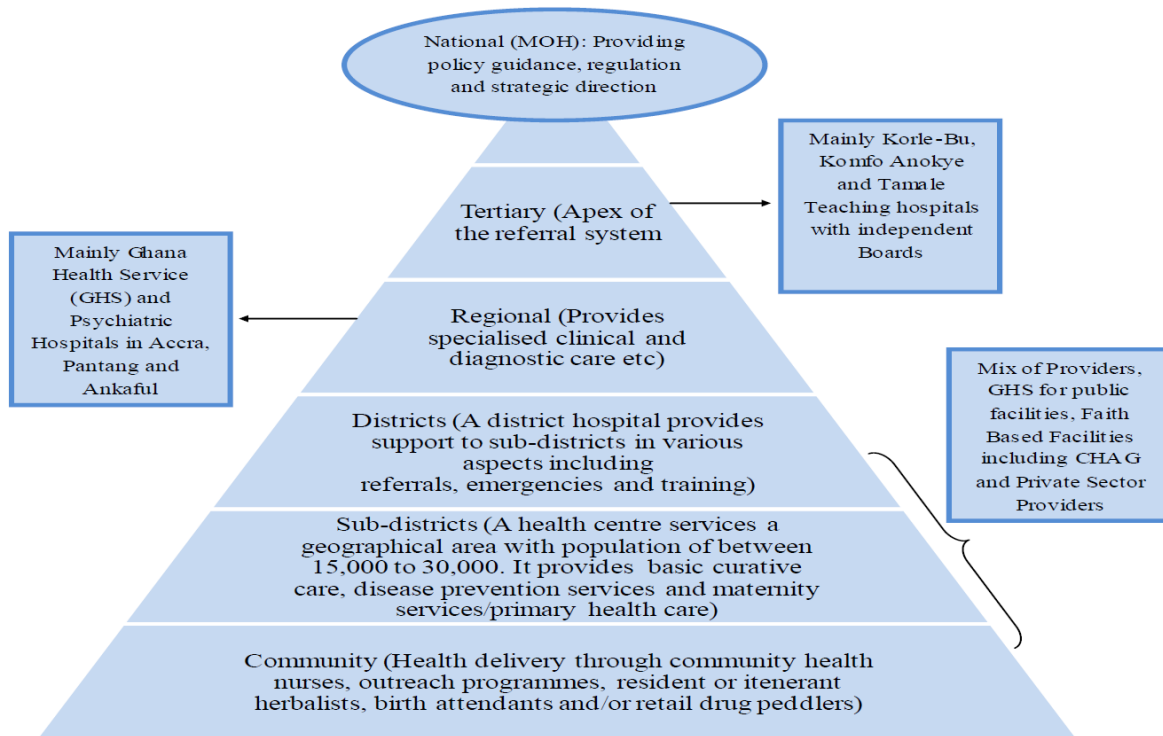
¹² See World Bank (2012), Ghana Country Status Report, Herbst (2010), Dumbledam, R. et al. (2011), Sealy, S. et al. (2010), and Seddoh, A. et al. (2011).

Figure 1.3: Ghana's health system



Source: Ministry of Health of Ghana and modified by the World Bank.

Figure 1.4: Ghana's service delivery system



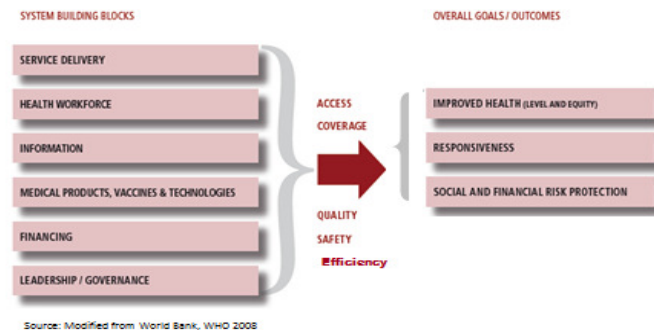
Source: Seddoh, A. et al. (2011), "Ghana's National Health Insurance Scheme", Rockefeller Foundation, New York, June 2011.

Health System and Health Financing Functions and Goals

Using WHO's health systems' classification, health financing systems are one of the six basic building blocks of health systems which include: service delivery; health work force; information; medical products, vaccines and technologies; financing; and, leadership/governance. Financing interacts with all of these other health systems elements and has a profound effect on achieving health systems goals of improved health outcomes, assuring financial protection, and responsiveness to consumers in an equitable, efficient and sustainable manner. Figure 1.5 below summarizes all these elements diagrammatically.

Figure 1.5: Health systems components and objectives

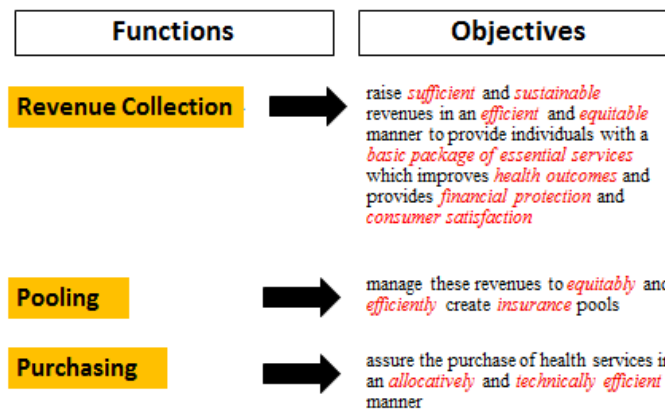
Health Financing Reforms are One Important Aspect of the Broader Health System Reform Agenda



The three basic health financing functions are revenue raising, risk pooling, and purchasing of services¹³. These functions and their underlying objectives are summarized in Figure 1.6, while Figure 1.7 from the 2010 World Health Report (WHR) shows the three critical elements of universal coverage: breadth, scope and depth.¹⁴

Figure 1.6: Health financing functions and goals

Countries Need to Focus on Health Financing Functions and Objectives, not Generic Models

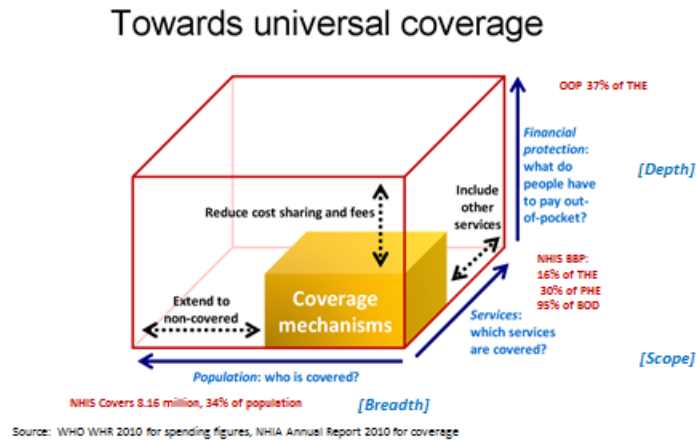


Source: Gottret and Schieber, *Health Financing Revisited*, World Bank 2008

¹³ WHO (2000) *WHR 2000*.

¹⁴ WHO (2010) *WHR 2010* and Kutzin, J., et al. (eds.) (2010).

Figure 1.7: Ghana's transition to universal coverage



With respect to health financing, countries need to focus on effectively implementing the three functions in order to achieve the basic objectives of improving health outcomes, assuring financial protection, and promoting consumer responsiveness in an equitable, efficiency and sustainable manner¹⁵. These latter aspects – equity, efficiency, and sustainability are sometimes referenced as sub goals of the three basic goals. Vacuous debates about financing ‘models’, such as Social Health Insurance vs. a NHS, are meaningless, as are ideologically driven ‘one size fits all’ solutions. Countries need to focus on the objectives they want to achieve in the context of their underlying demographic, epidemiological, political, geographic, institutional, and economic contexts, and design their financing policies to achieve those objectives¹⁶. Achievement of these goals will depend on the institutional arrangements and economic incentives embodied in Ghana’s health financing arrangements, and more broadly in its overall health system.

Figure 1.7 provides information about Ghana’s transition to universal coverage. In terms of the proportion of the population covered (breadth of coverage), according to NHIS, in 2010 34 percent of the population was covered by NHIS..¹⁷ In terms of the range of services covered, the scope of the basic benefits package (BBP) is broad with respect to covering 95% of the BOD, but far less broad in terms of the NHIS accounting for only 16 percent of total health expenditures (THE) and 30 percent of public health expenditures (PHE).¹⁸ In terms of the depth of coverage, out-of-pocket spending accounts for about 37 percent of total health spending, well in excess of WHO’s suggested 15-20 threshold for adequate financial protection. In proposing reforms of Ghana’s health financing system, each of

¹⁵ See WHO WHR 2010.

¹⁶ See Gottret, P. and Schieber, G. (2006).

¹⁷ As a result of the major controversy concerning NHISs coverage numbers resulting from the OXFAM report (Apoya, P. and Marriott, A. (2011)), which argued that only 18 percent of the population was covered, while NHIS was claiming 60+ percent in 2009, in 2010 NHIS changed its methodology and now reports 8.16 million ‘active’ members, 34 percent of the population.

¹⁸ If one uses NHIS 2009 expenditure information from its 2010 Annual Report for contributions from social insurance organizations instead of WHO’s NHA figure, and applies this figure to WHO’s 2009 total and government health expenditures for Ghana, then NHIS accounts for 24 percent of total health spending and 45 percent of all government spending. The large disparity in these figures emphasizes the critical need for better information for decision-making. WHO uses Ghana’s last comprehensive NHA in 2002 for estimating sources and uses of funds in its NHA estimations. It is critically important for Ghana to do a new comprehensive NHA, and for NHIS to continue refining its methodology and data for deriving its coverage figures.

these critical dimensions of coverage needs to be assessed, reform policies developed and actuarially estimated, and reconciled with the available fiscal space.

Lack of essential underlying information is a critical problem in Ghana. The last comprehensive national health accounts are from 2002, and the detailed weights across sources, uses, and service categories that are used to estimate the latest 2009 NHS are seven years old and predate NHIS. Similarly, as blatantly emphasized in the recent OXFAM report and heated coverage debate, there was no consistently reliable information with respect to unduplicated NHIS coverage numbers. As a result of the large disparities of figures (18 – 60+ percent), NHIS has revised its methodology for obtaining coverage figures, and according to its 2010 Annual Report, the number of ‘active’ members in 2010 is 8.16 million or 34 percent of the population.¹⁹

Ghana’s Health Financing System

There is an abundant literature on Ghana’s health financing system and the NHIS. The evolution of Ghana’s health financing system from a classic general revenue funded NHS (e.g., free care through the MOH) to a ‘cash and carry’ system relying on substantial patient payments to a national mandatory health insurance scheme has been well documented²⁰. As a low income country (LIC, at that time), Ghana was one of a handful of LICs to enact legislation with significant amounts of earmarked funding to put in place universal health insurance coverage with an extensive basic benefits package (BBP) with no cost-sharing, and starting its transition by covering the poor and other vulnerable populations. While in many OECD countries, UC evolved from community-based schemes, these evolutions took place over decades. Ghana on the other hand, based its system on the its existing community-based health insurance plans at the local levels, transitioned them to DMHISs, standardized the BBP and administrative procedures, and has in only 5 years de facto (albeit not de jure and not without problems) transitioned these schemes into local branches of the NHIS.

Figure 1.8 lays out in detail NHISs governance, administration, membership, provision, and financing arrangements. These various features and particularly the administrative, institutional and DHMIS operational aspects are analyzed in detail in the recent Rockefeller report²¹. The focus here is on the broader financing, eligibility, benefit, and provider payment issues.

¹⁹ NHIS (2011), 2010 Annual Report, p.16.

²⁰ See for example Apoya, P. and Marriott, A. (2011); Durairaj, V. et al. (2010); Nyongator, F. (2010), Ghana Case Study for WBI Health Reform Flagship Course; Mensah, J. et al. (2010); Hendriks, R. (2010); and, National Development Planning Commission (2008).

²¹ Seddoh, A. et al., pp. x-xi.

Figure 1.8: NHIS features

Legislative instruments	Act 650, 2003 and LI 1809 2004 are the main legal frameworks guiding the implementation of health insurance in Ghana
Governance	A Fifteen (15) member National Health Insurance Council established to manage a National Health Insurance Fund, provide subsidies to District-wide Mutual Health Insurance Schemes, regulate the insurance market and license and monitor service providers under the scheme.
Administration	A national Health Insurance Secretariat to provide administrative support to the National Health Insurance Council in the implementation of the Scheme.
	District Mutual Health Insurance Schemes established by sponsors identified by the District Assemblies or established by the Council as corporate bodies for the implementation of the scheme at the district.
	Private sector schemes may be established but do not receive subsidies from government. These operate as insurance schemes based on a premium, contract and policy.
	A Health Complaints Committee of the NHIC with decentralised and established in every district office of the Council.
Membership	Enrolment and membership in a District Mutual Health Insurance Scheme is mandatory for all residents of Ghana except those working with the Ghana Armed Forces, the Ghana Police Service or those who have proof of holding a health insurance policy. Persons eligible to membership are expected to pay a contribution of GHC 7.2 per year (equivalent of US\$ 7.74 at time of passage of Act). A period of six months may lapse between payment of membership and issuance of membership cards for accessing service.
	The scheme provides for persons to be exempted from paying membership fees. These are:
	- Contributors to the national Social Security and National Insurance Trust (SSNIT) or drawing pension benefits on SSNIT - Persons under the age of 18 with at least one parent paying membership fees or covered by the exemption clause - Persons above the age 70 years - Persons classified as indigents according to the criteria set by the Act and LI
Service provision	The legislative instrument defines a benefit and an exclusion package for which a member of the scheme may have access
	Any service provider wishing to provide services to members of the scheme have to apply to the NHIC for accreditation and licensing to provide a specified set of services from the benefit package according to their assessed competency.
Financing	There are five main sources of funds that accrue to a National Health Insurance Fund used primarily to finance service provided and cover administrative overheads of the NHIC
	- Appropriation of 2.5% of all funds mobilized from workers pension contributions to SSNIT - Ad valorem of 2.5% levied specifically for health insurance over all goods and services purchased or provided that are eligible for Value Added Tax - Government annual budgetary allocations proposed and approved by parliament to the NHIF - Accruals from investments of surplus funds held in the NHIF by the NHIC - Gifts and donations made by benevolent individuals or organizations to the NHIF
	Note: Contributions paid for membership do not accrue to the NHIF for reallocation in support of service provision. These are held at the district level for administrative support at that level

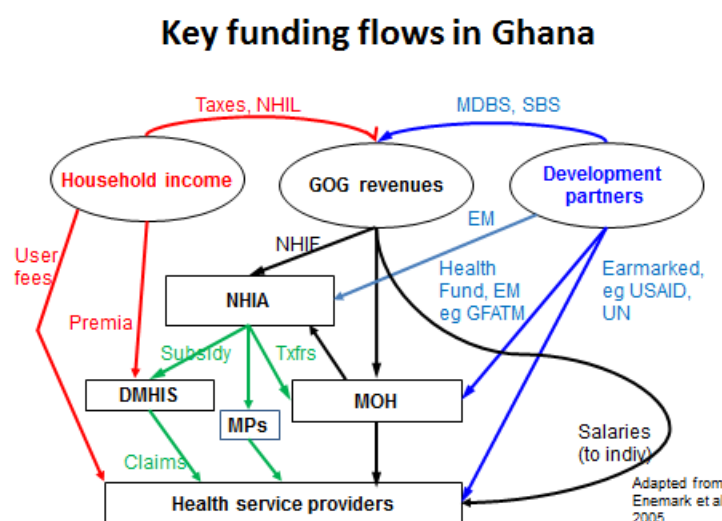
Source: Developed based on Act 650 (2003) and LI 1809 (2004).

Seddoh, A., et al., Ghana's National Health Insurance Scheme (2011), pp. x-xi.

However, as a LIC with limited experience in health insurance administration, a complex decentralized administrative structure, an economy open to external shocks, and rapid expansions of enrolment over 5 years to over one-third of the population (NHIS estimate), the NHIS has encountered serious growing pains and now finds itself at an important crossroads. The diversified funding sources for the NHIS are proving to be relatively stable and, according to the fiscal space analysis presented in Chapter 4, are likely to be a viable financing base for the scheme over the next three to five years. The revenue will not be sufficient to sustain the NHIS, however, under the current expenditure patterns and expansion plans. If the structural inefficiencies in the NHIS and in the health service delivery system are not addressed, the NHIS is projected to become insolvent by as early as 2013. It is difficult to argue for bringing additional resources into such a highly inefficient system. The NHIS needs to undertake major structural reforms to fundamentally alter its expenditure patterns in order to assure its future financial sustainability, effectively serve the Ghanaian population, and become a successful African and international ‘good practice’.

In analyzing these issues, it is important to understand the current flows of funds in Ghana’s health system. Figure 1.9 below displays the flows of funds in Ghana’s health system. Revenues for the system flow through non-tax revenues, taxes, donor contributions, and out-of-pocket payments by individuals. Funds are earmarked for the NHIS from the budget, but the budget also supports the MOH and some of the earmarked funding to NHIS is passed through to the MOH. Donor funds also provide direct support to the Government, NHIS as well as the MOH.

Figure 1.9: Flows of funds in Ghana’s health system



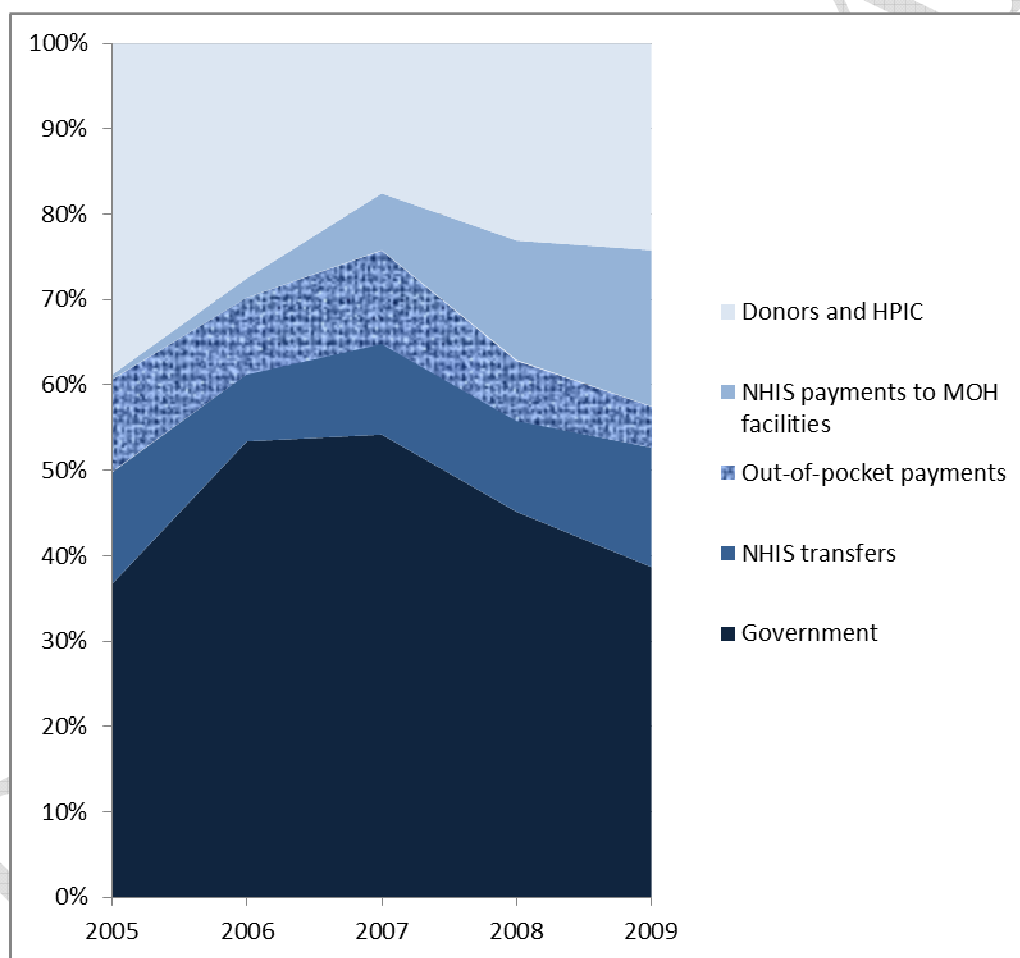
A background note prepared for this Report shows that financial resources and expenditures for health for both MOH and NHIS have increased quite substantially between 2005 and 2009²². In nominal terms, according to MOH financial statements, expenditures increased from GHC 349 million in 2005 to GHC 786 million in 2009, while those of NHIS (excluding transfers to MOH and payments to MOH facilities in order to avoid double counted amounts) increased from GHC 13 million to GHC 181 million.²³

²² Moulay Driss Zine Eddine El Idrissi (2011).

²³ There are serious data inconsistencies between WHO's NHA estimates and expenditure information obtained from administrative records. Unfortunately, Ghana has not done a full blown NHA since 2002. On the other hand, administrative

Figures 1.10 and 1.11 from that note display the sources of revenues of MOH, and show the increasing importance of NHIS transfers and the diminishing importance of direct government appropriations. In addition to the direct transfers to MOH, MOH facilities themselves are becoming increasingly dependent on internally generated funds – IGF for their revenue needs, which consist of out-of-pocket payments and NHIS insurance payments as shown in Figure 1.12. IGF now accounts for about one-quarter of public provider revenue. This raises important questions about whether NHIS is purely an insurance/purchasing entity or whether it is increasingly being required to take on MOHs/GHSs and the private sector’s role of health systems capacity development, and given the size of the MOH transfer, has major implications for NHISs sustainability as discussed below. Nevertheless, NHISs impact as the single national insurer and purchaser is very large and continues to grow.

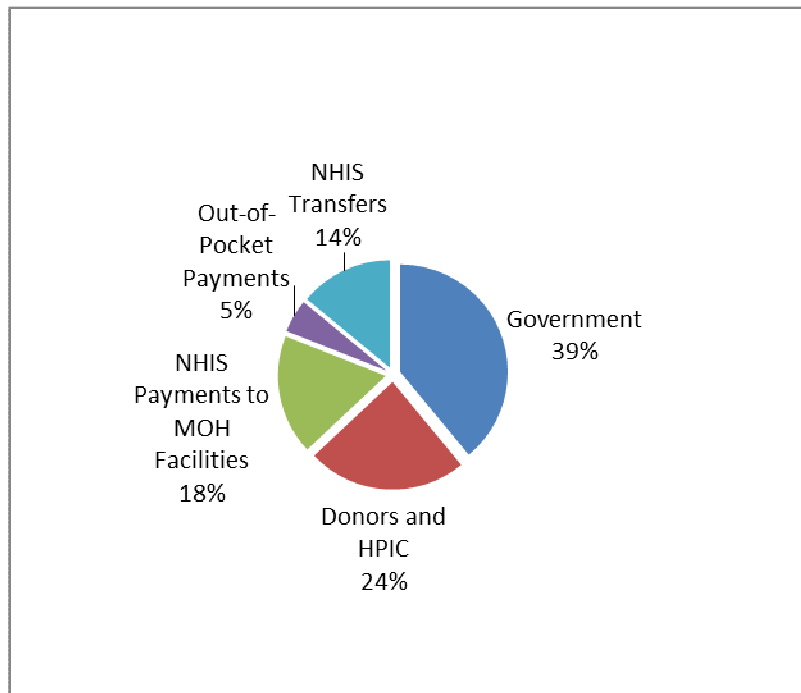
Figure 1.10: MOH revenues by source, 2005-2009, Current GHC



Source: MOH, HSMTDP (2010)

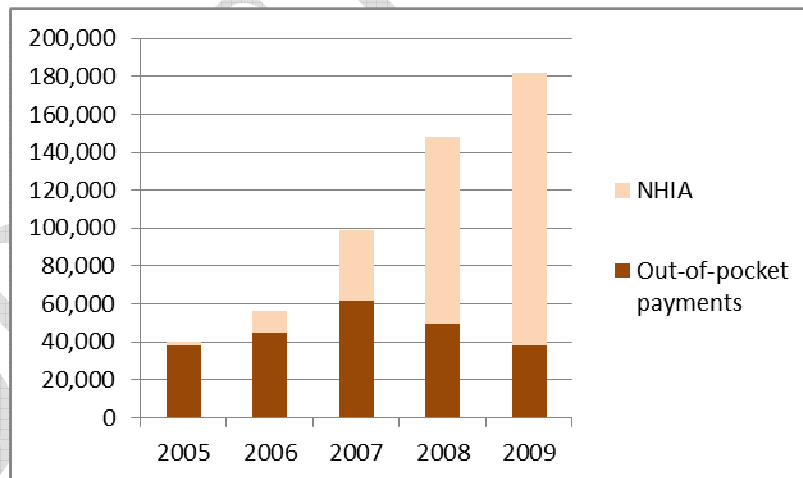
records are also problematic given the poor, albeit improving, state of PSM and HMIS in Ghana. See Moulay Driss Zine Eddine El-Idrissi (2011), and the Strengths and Weaknesses section of this report.

Figure 1.11: MOH revenue by source in 2009, Current GHC



Source: MOH, HSMTDP (2010)

Figure 1.12: Evolution of MOH facilities IGF, 2005-2009, Current GHC



Source: MOH, HSMTDP (2010)

As the single unified national health insurance entity, NHISs strategic purchasing function is maturing, and while not adequately exploited now, has the potential to be a force for change and modernization in service delivery. In particular, the NHIS has made an ongoing effort to modernize its provider payment systems and use this purchasing tool more effectively to achieve broader objectives for the system.

Regulation 37(2) L.I. 1809 of the health insurance legislative framework requires the NHIA to develop uniform provider payment mechanisms to reimburse accredited providers for services rendered to subscribers of NHIS. The

provider payment mechanisms suggested in the law include capitation, fee-for-service, or others as determined by the NHIA. Initially, the NHIA adopted an itemized fee-for-service payment system, paying providers for each service rendered. In addition to the natural incentive of fee-for-service payment to increase utilization with no lever to contain costs, the tariffs used by different schemes were not uniform, and inequities emerged as different facilities were reimbursed at different rates for treating the same condition.

In response to the challenges of the itemized fee-for-service system, the NHIA implemented the G-DRG in 2008. DRGs are standard groupings of diseases that are clinically similar, have comparable treatments or operations and use similar healthcare resources. Under the G-DRG payment system, providers are reimbursed the same fixed tariff for cases that fall into the same diagnostic category. There are about 550 G-DRGs, including bundled payment for outpatient services.

The G-DRG has been fully implemented, and although there are a number of challenges, the payment system is functioning well, understood and generally accepted by providers. The G-DRG payment system has not, however, succeeded in containing costs and driving efficiencies in service delivery, particularly for outpatient services. Outpatient claims now account for 70% of total NHIS claims and 30% of total costs. Between 2007 and 2009, the value of the average outpatient claim increased by nearly 50% from C6.93 to C10.11. Several easily-corrected aspects of the design of the G-DRG payment system also contribute to inefficiency and over-use of services, such as the “maximum” payment of three visits for complicated malaria, which has evolved into a minimum.

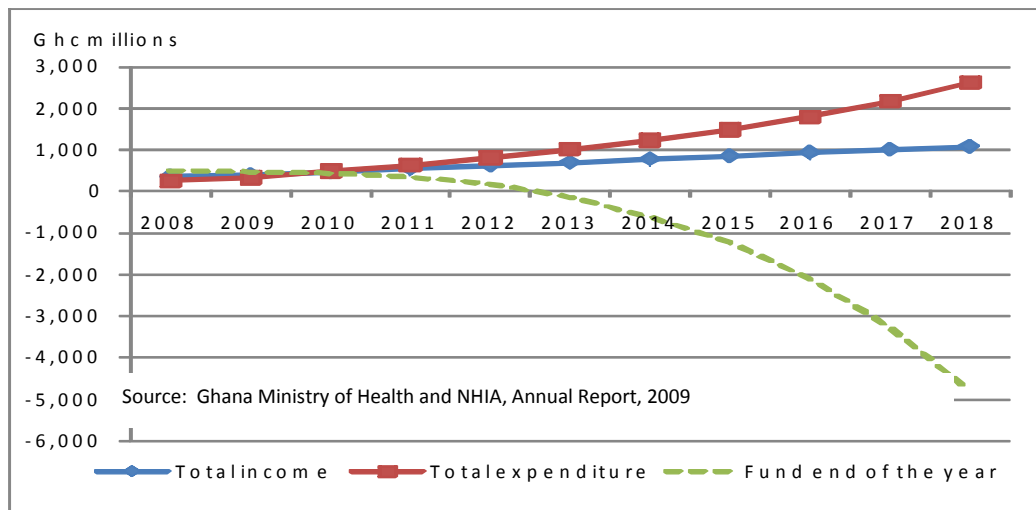
By 2010 the NHIA was faced with concerns about unchecked cost escalation, apparent supplier-induced demand, and little evidence of improved quality or effectiveness of services. After careful consideration of the current challenges, the NHIA decided to pilot a capitation payment system for primary care (PHC) services in Ashanti region in 2011. Ashanti region has a population of over 3.8 million people and accounts for nearly 25 percent of total NHIS claims. It is hoped that the pilot will help orient the NHIS toward making more effective use of provider payment mechanisms and begin to address more fundamental problems in the service delivery system, such as lack of focus on prevention, poorly coordinated care, and inadequate management of chronic diseases.

Figure 1.13 below displays NHISs income and expenditure cash flows. In 2009 sixty-one percent of NHIS income is derived from the NHIL, the 2.5 percentage point VAT earmark, and another 15.5 percent comes from the 2.5 percentage points of the 18.5 percent SSNIT contributions levied on formal sector workers and their employers.²⁴ Premium income accounts for less than 4 percent of income, but this is likely to be an under-estimate since premiums are paid directly to the district schemes and often do not show up in NHIS records. As shown in Figure 1.13, recent studies suggest that starting in 2010, NHIS will run deficits, and if changes are not made in expenditure patterns, it will have exhausted its reserves and become insolvent as early as 2013.²⁵

²⁴ We chose to use the 2009 NHIA data as opposed to the recently released 2010 information because our performance assessments in Chapter 2 are based on 2009 information (the latest currently available), and the detailed 2009 information on sources of funding and expenditures were available in Hendriks' (2010) actuarial report, but not in the 2010 NHIA Report.

²⁵ World Bank (2011), *Republic of Ghana: Joint Review of Public Expenditure and Financial Management*, Hendriks, R. (2010), and NHIS (2011) 2010 Annual Report.

Figure 1.13: NHIS financial sustainability



Source: World Bank, *Republic of Ghana: Joint Review of Public Expenditure and Financial Management*, World Bank, 2011, p.42.

As NHIS now accounts for some 30-40 percent of all public spending on health and is increasing rapidly, assuring the efficiency and sustainability of NHIS is a major national priority. However, money alone does not tell the story. It is value for money in terms of health outcomes, financial protection, and consumer responsiveness that matters. In Chapter 2, which follows, the performance of Ghana's health system is assessed.

Chapter 2 - Ghana's Health Financing: A Performance Assessment

Introduction

Few low and middle income countries have enacted legislation and begun their transition to universal health insurance (UHI) coverage. As discussed above Ghana is one of the few African countries to begin the transition of moving to demand-side financing by publically financing care to the poor and other vulnerable 'exempt' groups, assessing a payroll tax on public and formal sector employees, obtaining subsidized premiums from informal sector workers, and earmarking 2.5 percentage points of the country's VAT to help support the system. The purpose of the UHI reform is to improve health outcomes, provide financial protection, assure equity, and be responsive to consumers, while achieving long-run financial sustainability.

Ghana's national health financing reform effort was initiated in 2004 and has been evolving from community-based health insurance plans (mutuals and for-profit) to a system of district mutual health insurance schemes subject to a standard set of rules under a national health insurance administration (NHIA) to a national system in which the local DMHISs are in the process of becoming branches of the NHIA. The system has made progress over the past 5 years in increasing coverage, standardizing administration, and developing and beginning implementation of modern HMIS and provider payment mechanisms.

This chapter analyzes the performance of the system in terms of:

- a. Assessing changes over time in Ghana and other relevant Africa comparators in health outcomes (e.g., under 5 mortality, maternal mortality, and life expectancy), delivery system capacity (e.g., beds, physicians), and total, public and private health spending, and for the latest available year (generally 2009), benchmarking Ghana's performance relative to other comparable income and health spending countries
- b. Assessing the financial protection/equity/benefit incidence of the current health financing arrangements by income class
- c. Analyzing consumer satisfaction/responsiveness

The study builds upon previous studies by: using the latest available information (e.g., 2009 WHO NHA, 2011WDI, 2008 NDPC, 2011 IMF and World Bank program documents, etc.) on health spending, inputs, outcomes, household spending, and the macro economy (i.e., the significant November 2010 macroeconomic revisions); undertaking for the first time an extensive international benchmarking analysis; assessing changes over time in the financial protection/equity of the system at both macro and micro levels; and, analyzing the consumer responsiveness of the system.

There is no simple metric for analyzing the performance of a health system, given the dearth of reliable aggregate indices of health system performance in terms of health outcomes, financial protection, consumer responsiveness, equity, efficiency, and sustainability; and, perhaps even more problematic the extreme difficulty of assessing the complex interactions among all the relevant health systems' and relevant non-health systems' (e.g., education, sanitation) performance determinants including demand side factors.²⁶ Assessing changes over time in health sector outcome, input, and spending components and comparing these components for comparable income and health spending countries provides some crude measures for assessing relative performance based on global averages. For example countries that have better health and financial protection outcomes, higher levels of consumer responsiveness, use fewer inputs, and achieve this at lower spending levels, are worthy of further in-depth analysis

²⁶ See OECD (2010) and WHO *WHR* (2010).

as ‘good practice’ cases.²⁷ The first section of this chapter provides a summary of both the trend analysis and international benchmarking, the full analyses being contained in Annex 2.1. Next, using household level information, we analyze equity in terms of utilization, insurance coverage, and financial protection against impoverishment. Lastly, consumer responsiveness is discussed.

Health Outcomes, Inputs, and Health Spending

Trends in health outcomes and inputs are analyzed from 1960-2009, while health spending is analyzed from 1995-2009. Ghana’s is then compared to all countries globally for each of these measures based on the last available year of data (generally 2009), and its performance on each measure relative to other comparable income (and for health outcomes and inputs -- health spending) countries is assessed. Annex 2.1 contains these detailed analyses. What follows is a summary of the results.

Health Outcomes

With respect to health outcomes -- under 5 (U5) mortality, maternal mortality ratio (MMR), and life expectancy -- Ghana’s trends since 1960 (1990 for MMR) are compared to several neighboring countries including Tunisia, Sierra Leone, Rwanda, Kenya, Senegal, and Nigeria, and for 2009 (2008 for MMR), its performance is assessed relative to comparable income and health spending global comparators. The detailed results in Annex 2.1 show:

- U5 mortality decreased from 218 in 1960 to 77 per 1,000 live births in 2009.
- While Ghana started with and still has a lower absolute level than many of its neighbors, its rate of decrease, much like that of many SSA countries, had been rather slow until recently, and Ghana, like many SSA countries, is unlikely to achieve its 2015 MDG goal.²⁸
- Relative to other comparable income and health spending countries globally, Ghana has higher U5 mortality.
- The picture is much the same for maternal mortality, which decreased from 630 in 1990 to 350 per 100,000 live births in 2008.
- Because of slow improvements in MMR, Ghana, like many SSA countries, is unlikely to achieve its 2015 MDG goal.
- Compared to other similar income and health spending countries globally, in 2008 Ghana’s MMR was higher than the global average.
- Life expectancy has increased from 46 years in 1960 to 63.4 years in 2009.
- While Ghana started with a higher level than many comparators, it has maintained its position through continual improvements, and is one of the better SSA performers on this measure.
- In 2009, Ghana had higher life expectancy than other comparable income and health spending countries globally.

This analysis suggests that in terms of health outcomes, Ghana performs worse than other comparable income and health spending countries on U5 and maternal mortality, but better on life expectancy. The analysis below may help shed some light on some of the factors, such as the lack of skilled birth attendants, which may be partially responsible for these results.

²⁷ See Gottret, P. et al. (2008).

²⁸ Due to Ghana’s recently enhanced efforts, there is still some possibility for Ghana to reach its U5 MDG goal. See World Bank, Ghana Country Status Report (2012).

Health Inputs

With respect to health sector inputs, consistent 1960-2009 data are available for physicians and hospital beds, while in addition to these 2 input measures, point in time global benchmarking was possible for all health workers as well as skilled birth attendants. The analyses in Annex 2.1 show:

- Ghana's physician to population ratio increased from 0.05 physicians per 1000 population in 1960 to 0.09 in 2009.
- While Ghana was in the mid-range of its neighbors in 1960 and its ratio has increased significantly over this period, in 2009, Ghana still had fewer physicians per capita than other comparable income and health spending comparators globally.
- Vis a vis skilled birth attendants in mid-2000, it had fewer skilled birth attendants relative to other comparable income and health spending countries globally.
- With respect to total health workers, in mid-2000, Ghana had fewer numbers of health workers than other comparable income and health spending countries.
- With respect to hospital beds, Ghana's hospital beds increased from 0.78 per thousand population in 1960 to 0.93 in 2009.
- The ratio has been declining since 1985, a similar trend being seen in some neighboring countries.
- In 2009, Ghana had fewer beds per capita than other similar income and health spending global comparators.

Ghana appears to have fewer health inputs, both hospital infrastructure and manpower, than other comparable income and health spending countries. If inputs were being used efficiently, lower levels of inputs could be viewed as positive. However, given Ghana's relatively poor health outcomes and near average spending levels (assessed below), a much more in-depth assessment is needed of the health system's infrastructure including its distribution, utilization levels, governance, quality, etc. as well as micro studies of technical efficiency. Such an assessment is undertaken in the Ghana CSR and in the following chapter.²⁹

Health Spending

Health spending can be measured in various ways, each of which provides complementary information about health spending performance. One can analyze spending in terms of total, public, private, and out-of-pocket (OOP), in local currency units (LCUs) or in some numeraire currency such as U.S. dollars using exchange rates or purchasing power parities – international dollars (i.e., correcting for price differences across countries), in nominal and real terms, in terms of totals or per person, and relative to the overall economy (GDP). Annex 2.1 contains an extensive analysis of all these measures in terms of 1995-2009 time series comparisons relative to neighboring countries as well as global comparisons holding income constant for 2009. The key findings are:

- In terms of LCUs and \$US comparisons both total and per capita health spending have increased significantly since 1995 with total health spending increasing from \$27 per capita in exchange rates and \$63 in PPPs in 1995 to \$54 and \$125 per capita in 2009.
- Over this period the composition of health spending has changed with the public share increasing from 44 percent of the total in 1995 to 53 percent in 2009, while the private and OOP shares have declined from 56 percent and 44 percent in 1995 to 47 percent and 37 percent in 2009, respectively.
- However, relative to GDP, the share of the economy devoted to health dropped from 5.3 percent in 1995 to 4.9 percent in 2009.
- In terms of the relationship between nominal health spending and nominal GDP growth, total health spending over the full 1995-2009 period increased annually 3 percent more rapidly than GDP (nominal

²⁹ See World Bank, Ghana Country Status Report (2012).

elasticity of 1.03), public spending increased 13 percent more rapidly (1.13) and private spending increased 7 percent less rapidly (0.93).

- These increases were all lower than the averages for SSA as a whole where the elasticities of total, public and private health spending relative to GDP were 1.09, 1.17, and 1.02.
- After the implementation of NHIS in 2004, total health spending increased at the same rate as GDP (1.00), public spending continued to increase significantly more rapidly than GDP (1.11), and private spending showed yet lower increases (0.87).
- Relative to *total government spending*, government spending on health increased 12 percent per year faster than overall government spending for the 1995 - 2009 period (elasticity of 1.12), but only 2.1 percent faster from 2004-2009 (1.02).
- However relative to *total government revenues*, government health spending increased 1 percent per year faster from 1995-2009 (1.01), but 15 percent per year faster from 2004-2009 (1.15). These figures reflect the fluctuations in public spending on health and overall government spending, revenues, and GDP due to both exogenous global factors such as the global financial crisis and aid flows, as well as specific government domestic policy choices concerning the implementation of NHIS and the large salary increases to doctors.

In terms of global comparisons in 2009, as a result of the revisions in GDP and Ghana's new found status as a LMIC, its global position is rather different than previously thought. The analysis shows:

- Total health spending as a share of GDP (4.9 percent) is slightly below the global average, while in per capita exchange rate-based (\$54) and PPP adjusted (\$125) \$US is about average for comparable income global comparators.
- Public spending on health in Ghana measured as shares of the total health spending (53 percent) and total government spending (12.6 percent) are well above the global average for comparable income countries. However, as a share of GDP (2.6 percent), public spending on health is about average for a country of its income level as are public spending on health per capita in both exchange rates (\$29) and international dollars (\$66). This contrasts with the pre-GDP revision situation, where Ghana's public spending on health would have been above the global averages on most of these measures. Also, in 2009 Ghana, like many other African countries, has not reached the Abuja target of dedicating 15 percent of the government budget to health.
- Private spending as shares of total health spending (47 percent) and GDP (2.2 percent) and in per capita exchange rate-based (\$25) and international dollar (\$58) terms for 2009 are all quite close to the global averages for comparable income countries.
- Out-of-pocket spending is an important measure of financial protection and accounts for 79 percent of all private health spending. At a macro level for global comparisons OOP is measured as shares of total health spending (37 percent) and GDP (1.8 percent) and in per capita exchange rate-based (\$20) and international dollars (\$46) for 2009. Based on all these measures, OOP spending in Ghana is at or slightly above its global comparator averages. Thus, relative to global comparators, financial protection is about average or slightly worse, but based on the WHO's 15-20 percent OOP criterion, at an aggregate level financial protection in Ghana appears to be problematic.
- In terms of the Government's ability to sustainably finance health as well as all other public programs, one analyzes revenue effort in terms of the revenue to GDP ratio (13.5 percent) as well as the share of external aid in total health spending (14 percent). Despite increased revenue efforts in recent years, Ghana's revenue to GDP ratio is well below the levels found in other comparable income global comparators. External aid as a share of total health spending is average for a country of Ghana's income level in 2009. The question, however, is that with the significant increase in income engendered by new oil production, will donors still continue their very significant levels of assistance to Ghana?

Thus the global comparisons of health spending using the revised GDP figures and latest NHA data suggest that Ghana's overall level of health spending relative to GDP is slightly below the average level for comparable income global comparators. Its public share is above average, and OOP is at or slightly above global comparators. The GoGs ability to continue expanding coverage may be quite challenging, given the country's low revenue effort. There is also the question of whether the globally average but still sizeable share of external assistance will continue. Given Ghana's relative poor health and macro financial protection outcomes, two of the key goals of health systems and the low levels of inputs, serious questions of allocative and technical efficiency arise. To more fully explore the financial protection and equity issues and get a better understanding of the impact of NHIS on access to essential services and health outcomes, household level information is analyzed.

Equity and Financial Protection

In addition to analyzing financial protection at the macro level, we also assessed financial protection and equity using various household level data. Unfortunately household level consumption and expenditure level information is only available up to 2006, while household wealth level information is available for 2008. It is critical for the GoG to obtain more recent household consumption and expenditure information in order to assess the equity and financial protection impacts currently and over time for these key NHIS and health systems objectives.

We analyzed equity in accessing NHIS coverage by looking at both registration and cardholder status by wealth quintile. We then examined equity in health care utilization by analyzing differences in utilization rates across wealth quintiles, before and after the introduction of health insurance. We looked at overall health care utilization and in particular for maternity services, which are a particularly high priority in Ghana. For the most recent data available, we disaggregated the survey by insurance status of respondents. We also looked at both the benefit and financing incidence of health spending by income class based on a recent study by Akazili et. al. and a new World Bank report on health equity and financial protection in Ghana.³⁰ Unfortunately, the latest available data for 2008 are based on wealth, not income or expenditure quintiles. Getting more recent information based on household spending and income is an important priority for assessing the equity impacts of NHIS.

Inequity in NHIS Coverage

Table 2.1 shows the percentages of adult men and women (ages 15-49) with NHIS registrations and NHIS cards for the highest and lowest wealth quintiles. The differences between registration and cardholder status have to do with waiting periods and administrative processing times between registration and card receipt. Clearly larger percentages of men and woman in the top wealth quintile are both registered and have NHIS cards compared to men and woman in the lowest wealth quintile. The differences are rather striking with 20 percent of upper wealth quintile men having NHIS cards, compared to only 10 percent of those in the lower wealth quintile. For women the comparable percentages are 29 percent for the top wealth quintile verses 17 percent for the lowest wealth quintile. The registration figures show the same disparities. This is particularly troublesome given the rather extensive premium exempt eligibility groups which include the poor. It would appear that both the definition of indigence and outreach activities to assure enrolment of this most vulnerable group need to be reassessed.

³⁰ See Akazili et al. (2011) and Bredenkamp et al. (2012).

Table 2.1: Inequity in NHIS coverage

Coverage of Adults 15-49 by wealth quintile, DHS (2008)		
Wealth quintile	NHIS Registered	NHIS Cardholders
Women –		
Lowest 20%	29.3%	17%
Highest 20%	47.0%	29%
Men --		
Lowest 20%	16.6%	10%
Highest 20%	37.7%	20%

Source: GDHS (2008)

Overall Health Care Utilization

The past 15 years has seen fluctuating patterns in health care utilization. While 50% of the population responded to foregoing care during illness or injury in the early 1990s, this figure has climbed up to 56% in 1998, more so for the poor at 63%. The worsening situation in the 1990s seems to have abated as seen in improvements in utilization patterns as of 2005 as shown in Table 2.2. There was a significant decrease in the percentage of Ghanaians foregoing care, while marked improvements in utilization of pharmacists and hospitals were observed for all, even among the poor.

Table 2.2: Facility consulted in case of illness and injury, 1991 to 2006

	1991/92			1998/99			2005/06		
	Poor	Non-poor	All	Poor	Non-poor	All	Poor	Non-poor	All
Hospital	13.7	22.6	18.6	8.6	18.7	15	12.2	21.5	19.5
Pharmacist	1.7	5	3.5	1.4	3.9	3	22.7	20.3	20.8
Other	26.8	27.3	27.1	26.9	25.2	25.8	19.6	19.6	19.6
Did not consult	57.8	45.1	50.8	63.2	52.2	56.2	45.6	38.6	40.1
All	100	100	100	100	100	100	100	100	100

Source: World Bank. (2011). *Republic of Ghana: Joint Review of Public Expenditure and Financial Management*. Country Department West Africa 1, Africa Region, Poverty Reduction and Economic Management 4. Washington, D.C.: The World Bank.

Since it could not be ascertained if this increase can be attributed to the introduction of health insurance, this study used the most recent NDPC data to examine the utilization patterns of the insured vs the uninsured. Among those who reported getting ill/injured in the last four weeks prior to the survey, insured members reported higher probabilities of going to formal health facilities compared to the uninsured (Table 2.3). Being insured has the strongest effect on utilization of health facilities for the lowest quintile. The most drastic difference is in the utilization of government hospitals, where 39 percent of the ill and insured went, while the figure is only 12 percent for the uninsured.

Table 2.3: Percent of ill/injured who sought care at a health facility ^a, by quintile and insurance status

	Government Hospital		Government Health Center		Mission Hospital		Private Hospital		Private Clinic	
Wealth Quintile	Insured	Uninsured	Insured	Uninsured	Insured	Uninsured	Insured	Uninsured	Insured	Uninsured
Lowest	39.16%	11.86%	35.32%	24.91%	7.18%	1.35%	1.60%	1.31%	2.16%	0.00%
Second	38.80%	12.61%	28.91%	25.59%	5.77%	0.80%	2.23%	2.25%	5.42%	4.92%
Middle	33.44%	36.51%	37.38%	15.47%	5.84%	3.08%	2.25%	0.99%	5.05%	6.73%
Fourth	39.26%	24.86%	19.17%	9.95%	5.65%	5.27%	3.11%	4.45%	12.64%	6.51%
Highest	42.03%	31.85%	14.16%	8.70%	6.55%	3.22%	15.47%	11.98%	10.25%	12.06%
Total	38.63%	22.00%	26.25%	17.88%	6.16%	2.59%	5.28%	3.84%	7.42%	5.52%

Source: Author's calculation using National Development and Planning Commission's Citizens' Assessment Survey, 2008

Note: ^a numerator is the facility utilized for illness/injury, denominator is restricted to those who reported having been ill/injured

When uninsured individuals become ill or injured, many resort to self-medication, as shown by the 32 percent of the uninsured going directly to a drugstore (Table 2.4). In contrast, only seven percent of the insured self-medicated. The same trend is seen among those who forego treatment —10% of the uninsured did not seek care, compared to 2.6% of the insured. The highest utilization rate for herbal healer, self-medication, and foregoing treatment are seen among the uninsured in the poorest quintile.

Table 2.4: Percent of ill/injured who self-treated or sought care at a non-formal facility ^a, by quintile and insurance status

	Drugstore		Herbal Healer		Other Facilities ^b		Forego Treatment ^c	
Wealth Quintile	Insured	Uninsured	Insured	Uninsured	Insured	Uninsured	Insured	Uninsured
Lowest	5.05%	30.66%	2.74%	7.40%	0.86%	0.00%	2.88%	19.97%
Second	6.30%	38.59%	1.40%	2.98%	1.26%	0.80%	4.99%	10.42%
Middle	6.84%	28.03%	0.91%	1.10%	0	0	2.43%	6.98%
Fourth	7.91%	40.71%	0	0	0	0	3.01%	3.30%
Highest	8.44%	21.17%	0.73%	0.00%	0.86%	0.00%	0.00%	5.42%
Total	7.02%	32.47%	1.08%	2.66%	0.60%	0.18%	2.62%	9.93%

Source: Author's calculation using National Development and Planning Commission's Citizens' Assessment Survey, 2008

Notes: ^a numerator is the facility utilized for illness/injury, denominator is restricted to those who reported having been ill/injured. ^b numerator is the facility utilized for illness/injury (others pertain to facilities other than government hospital/clinic, mission hospital, private hospital/clinic. Details about the variable were not provided in the micro data), denominator is restricted to those who reported having been ill/injured; ^c numerator is number of respondents who reported not utilizing any facility despite illness/injury, denominator is restricted to those who reported having been ill/injured

Between 2003 and 2008, more women began to shift towards facility based deliveries. Home deliveries have declined from 53% in 2003 to 42% in 2008. Even women from the lowest two quintiles have started to give birth in health facilities, especially those owned by the government.

Table 2.5: Percent of pregnant women^a who delivered in a health facility, 2003 and 2008

	Public Sector		Private Sector		Home		Others		Missing		# of Births	
	2003	2008	2003	2008	2003	2008	2003	2008	2003	2008	2003	2008
Lowest	17.0%	22.1%	2.4%	1.4%	79.6%	75.7%	0.3%	0.2%	0.7%	0.6%	941	744
Second	24.1%	41.7%	6.0%	7.0%	69.0%	50.2%	0.6%	1.0%	0.4%	0.1%	809	641
Third	32.8%	53.5%	7.9%	8.6%	58.5%	36.5%	0.2%	0.7%	0.7%	0.7%	721	549
Fourth	57.3%	68.8%	15.5%	11.3%	26.4%	19.6%	0.6%	0.0%	0.2%	1.0%	617	560
Highest	68.0%	71.5%	21.4%	21.2%	9.2%	6.6%	0.0%	0.3%	1.4%	0.3%	551	415
Total	36.3%	48.4%	9.4%	8.7%	53.4%	42.0%	0.6%	0.5%	0.6%	0.5%	3639	2909

Source: Ghana DHS, 2003 and 2008

Note: ^a pertains to women who gave birth in the past five years

The same trend is observed in delivery assistance, where increasingly, skilled birth attendance is gaining ground. While more women gave birth with the assistance of a medical doctor, more pronounced increases in access to doctors is seen in richer quintiles. Those that are catering for the second and third quintiles are nurses and midwives. Unfortunately, the lowest quintile has remained under the purview of a traditional birth attendant.

Table 2.6: Percent of pregnant women^a who sought assistance during delivery, 2003 and 2008

	Doctor		Nurse/Midwife/Auxiliary Midwife		Traditional Birth Attendant		Relative/Other		No one		Don't know		Number of Births	
	2003	2008	2003	2008	2003	2008	2003	2008	2003	2008	2003	2008	2003	2008
Lowest	1.6%	2.2%	19.0%	24.2%	37.8%	49.8%	37.5%	15.0%	3.3%	4.2%	0.8%	0.7%	941	744
Second	3.0%	5.8%	28.9%	47.9%	44.3%	30.5%	21.1%	12.1%	2.4%	3.4%	0.4%	0.4%	809	641
Third	3.4%	9.2%	39.9%	58.9%	37.2%	22.1%	16.7%	6.3%	2.0%	2.0%	0.8%	0.7%	721	549
Fourth	10.5%	17.6%	62.6%	66.4%	19.2%	11.0%	5.9%	1.7%	1.7%	1.6%	0.2%	0.3%	617	560
Highest	20.2%	28.6%	70.2%	66.9%	4.7%	3.6%	2.9%	0.6%	0.6%	0.3%	1.4%	0.3%	551	415
Total	6.6%	11.0%	40.5%	48.6%	31.0%	27.7%	19.1%	8.1%	2.2%	2.5%	0.7%	0.5%	3639	2909

Source: Ghana DHS, 2003 and 2008

Note: ^a pertains to women who gave birth in the past five years

While insured members generally have higher utilization rates, pregnant women from the second to fifth quintiles, appear to have good access to prenatal and delivery care services, regardless of insurance status. Tables 2.6 and 2.7 show that most pregnant women are seeking delivery assistance from skilled birth attendants and are delivering in health facilities. The effect of insurance on reducing the probability of delivering at home is largest for women in the lowest quintiles (more than a 20 percentage point difference for the three lowest quintiles).

Table 2.7: Percent of pregnant women ^a who delivered in a health facility, by quintile and insurance status

	Government Hospital		Health Center		Private Hospital ^b		Others ^c		Home	
Wealth Quintile	Insured	Uninsured	Insured	Uninsured	Insured	Uninsured	Insured	Uninsured	Insured	Uninsured
Lowest	31.99%	11.45%	23.90%	12.27%	0	0	1.64%	2.59%	65.17%	87.76%
Second	37.94%	21.36%	33.04%	15.80%	3.73%	5.52%	7.43%	6.80%	43.20%	64.80%
Middle	56.85%	35.03%	21.70%	17.45%	7.53%	6.26%	6.15%	7.49%	27.95%	50.18%
Fourth	73.97%	54.49%	16.30%	13.68%	8.66%	7.13%	3.73%	7.94%	13.02%	28.42%
Highest	65.71%	71.80%	9.50%	9.62%	16.09%	20.69%	9.40%	0.00%	5.10%	4.71%
Total	57.64%	30.15%	19.44%	14.13%	8.19%	5.47%	5.76%	5.17%	25.71%	58.64%

Source: Author's calculation using Ghana DHS, 2008

Note: ^a pertains to women who gave birth in the past year; ^b pertains to private hospital clinic, FP/PPAG clinic, maternity home, and other private facilities; ^c pertains to other facilities other than home or facilities owned by public or private medical sector. Detailed responses were not provided in the micro data.

Table 2.8: Percent of pregnant women ^a who sought assistance during delivery, by quintile and insurance status

	Doctor		Nurse		Auxiliary Midwife		Community Health Worker		Trained Traditional Birth Attendant		Untrained Traditional Birth Attendant	
Wealth Quintile	Insured	Uninsured	Insured	Uninsured	Insured	Uninsured	Insured	Uninsured	Insured	Uninsured	Insured	Uninsured
Lowest	6.96%	1.20%	40.84%	23.99%	1.74%	1.13%	6.89%	0.55%	11.31%	22.70%	43.26%	49.26%
Second	3.46%	7.93%	57.26%	33.70%	17.55%	4.87%	6.82%	3.30%	17.46%	28.69%	24.00%	14.47%
Middle	12.29%	11.56%	81.01%	52.67%	8.04%	5.13%	0.00%	1.14%	15.26%	24.45%	12.02%	17.75%
Fourth	18.32%	13.26%	81.01%	79.27%	7.75%	6.32%	0	0	7.87%	18.61%	3.84%	0.00%
Highest	27.78%	36.46%	86.71%	88.05%	12.57%	3.23%	0.00%	2.41%	0	0	2.87%	3.06%
Total	15.48%	9.76%	73.04%	45.76%	9.69%	3.81%	2.04%	1.45%	9.38%	21.98%	13.60%	22.94%

Source: Author's calculation using Ghana DHS, 2008

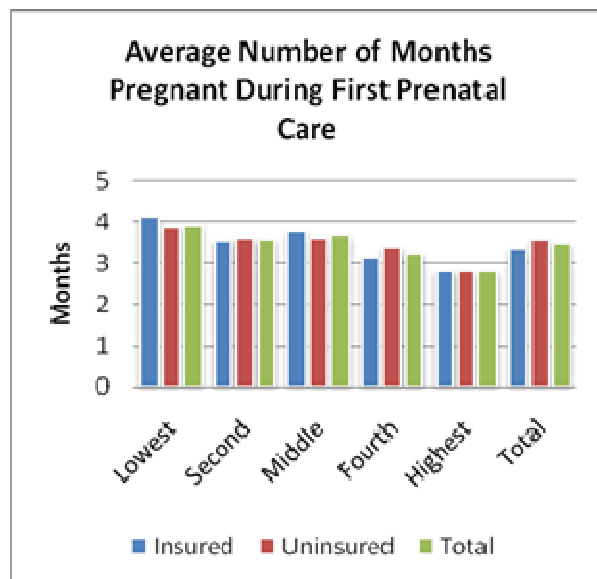
Note: ^a pertains to women who gave birth in the past year

An outlier is the lowest quintile whose default provider seem to be untrained birth attendants and home-based deliveries. While insurance coverage curbed this slightly, the table above shows that the poorest population continues this practice despite their insurance coverage. Ensuring their access to maternal care services appears to require more than just membership in health insurance. There would appear to be some scope to improve the reach of Community health workers who were introduced into the health system by the GHS in 2003.³¹ Their primary responsibility is to provide services in the CHPS zones and their responsibilities should be broadened to ensure that the lowest quintile is made aware of the importance of adequate maternal care protocols.

³¹ GSS, GHS, and Macro International (2009).

For the rest of the quintiles, attention should be focused on ensuring that pregnant women seek prenatal care during the first trimester of pregnancy. WHO recommends having the first check-up in the first trimester. Figure 2.1 shows that on average, the first prenatal care check-up in Ghana is delayed until early second-trimester.

Figure 2.1: Average number of months pregnant during first prenatal care



Source: Author's calculation using Ghana DHS, 2008

Note: pertains to women who gave birth in the past year

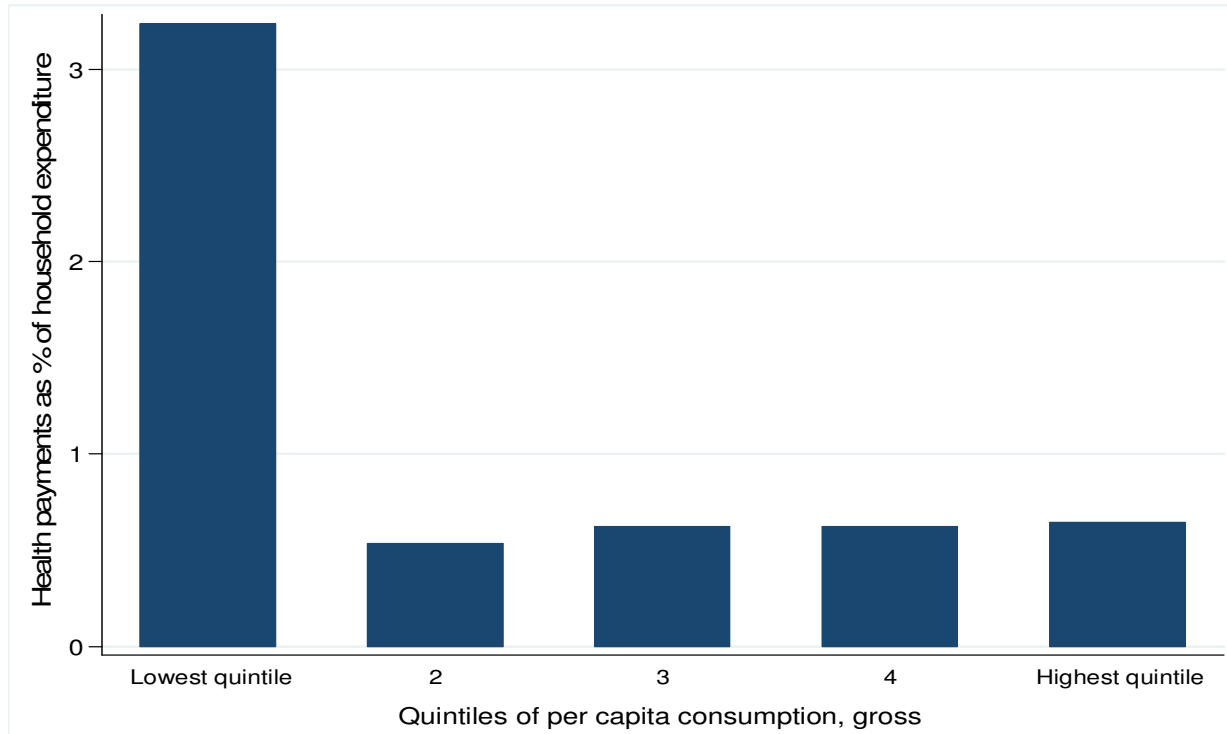
Out-of-Pocket Payments and Financial Protection

Unfortunately the most recent available information to assess the impacts of out-of-pocket payments on impoverishment comes from the 2005/2006 GLSS data set. The burden of health payments appears to be relatively low in Ghana, but households in the poorest quintile allocate a higher share of expenditures on health care compared to the rich. Figure 2.2 shows that while other quintiles spend 0.5% of total expenditures on out-of-pocket payments for health services, the lowest quintile spends around 3.2% of their household expenditures on health care.

Excessively high household expenditures on health payments can push some households into poverty. Spending a large proportion of the household budget on health care payments may deprive the household of the consumption of other goods and services. Table 2.9 shows the share of household health spending to the total household expenditure for various thresholds (5-40 percent). Only 1.4 percent of households in Ghana spend 10% or more of their total expenditures on health care. While this is very low compared to other countries such as Vietnam and Bangladesh that have 15 percent of households spending above this threshold³², what is alarming is the degree of concentration of those incurring catastrophic expenditures in the lowest quintile.

³² Van Doorslaer, E., et al. (2007).

Figure 2.2: Health payment shares by quintiles



Source: Author's calculation using GLSS, 2005/2006

Table 2.9: Catastrophic expenditure headcounts, by various thresholds

	5%	10%	15%	25%	40%
Lowest	4.3	3.3	2.9	2.9	2.9
Second	1.8	0.6	0.3	0.0	0.0
Middle	2.5	1.1	0.4	0.0	0.0
Fourth	2.3	1.0	0.4	0.1	0.0
Highest	2.3	1.1	0.6	0.2	0.1
Total	2.7	1.4	0.9	0.6	0.6

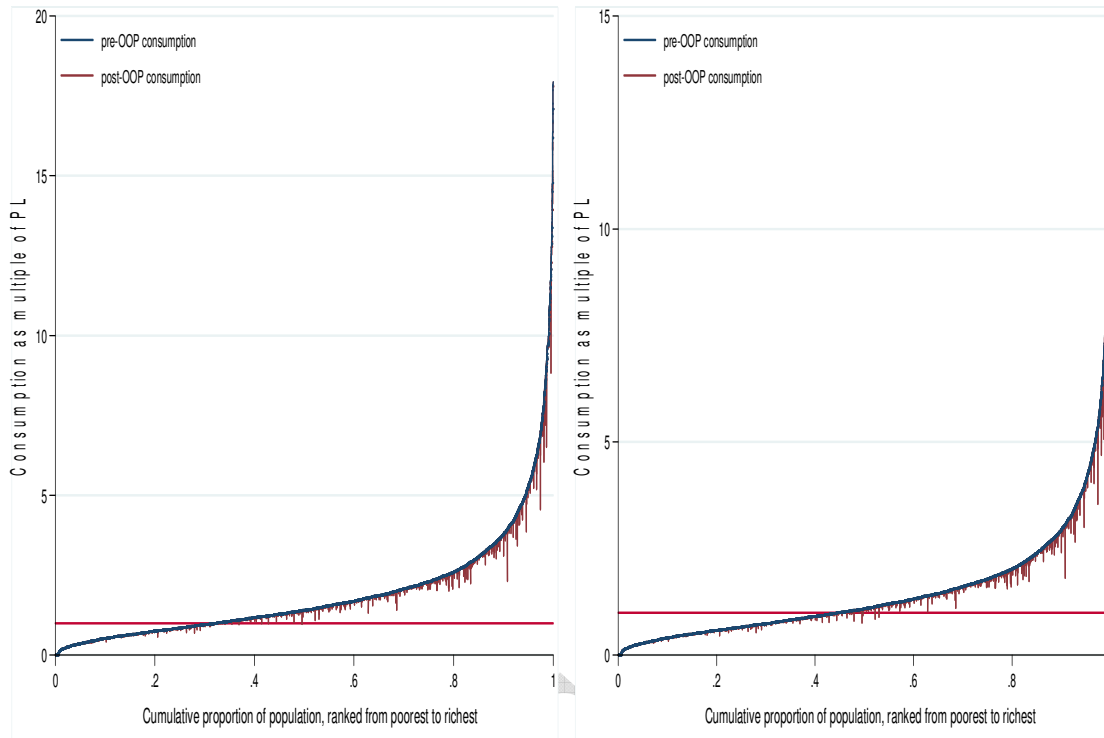
Source: Author's calculation using GLSS, 2005/2006

Expenditures on healthcare push the near poor into poverty. Figure 2.3 shows households ranked by per capita consumption expenditure (x-axis) and per capita expenditure on health (y-axis). The spikes show the difference between expenditure of the household before and after health spending. For those households near the poverty line, incurring health expenditures could push them into poverty.

Figure 2.3: Per capita expenditure, gross and net of health spending

Poverty line=lower bound

Poverty line=upper bound



Source: Author's calculation using GLSS, 2005/2006

In 2006, 31.8 percent of the households have expenditure levels below the official poverty line-lower bound.³³ When payments for medical care are subtracted from expenditure, the headcount rises to 32.0 percent (Table 2.10). This means that roughly 0.2 percent of the households who previously did not fall below the poverty line, fell below the line once health payments are subtracted from expenditure (those whole spikes are falling below the line in Figure 2.3). While this difference is relatively small, the alarmingly high rate of poverty amplifies even this small additional impoverishment impact.

³³ According to GSS, there are two poverty thresholds. The lower bound is GHC 288.47 and the upper bound is 370.89.

Table 2.10: Changes in poverty headcount due to health spending

Poverty Measure	Poverty Line-Lower Bound		Poverty Line-Upper Bound	
	Gross of health payments	Net of health payments	Gross of health payments	Net of health payments
Poverty headcount	31.8	32.0	44.5	44.8
Poverty gap	33.4	33.7	64.9	65.4
Normalized poverty gap	11.6	11.7	17.5	17.6
Normalized mean positive poverty gap	36.4	36.5	39.3	39.4

Source: Author's calculation using GLSS, 2005/2006

Benefit and Financing Incidence

Assessing the benefit incidence and financing incidence of Ghana's health financing system is problematic due to the aforementioned lack of recent household level consumption and expenditure information. As discussed above the most recent data are only available for 2005-2006. Based on these data Bredenkamp et al. using the World Bank's *ADEPT* software find that government subsidies for inpatient and outpatient hospital care are pro-rich, while such subsidies for health centers and health posts are pro-poor. However, since the latter accounts for less than 17 percent of all health spending, taken together total subsidies on health tend to favor the better-off.³⁴ Clear there is a need for another GLSS type of study in 2012/2013 in order to capture post-NHIS effect on OOP, NHIS coverage and health service use.

With respect to the financing incidence, Akazili et al. using 2006 household data augmented by a special 2008 'SHIELD' household survey assess the incidence of both the overall health financing system as well as NHIS. Basically they find that Ghana's various tax levies are progressive, while out-of-pocket spending and NHIS voluntary enrollee premiums tend to be regressive. Overall they find both the financing of the overall health system and NHIS to be generally progressive.³⁵

Thus it would appear that the benefit incidence of Ghana's health financing system can be improved, while the financing side appears to be generally progressive. Improvements in benefit incidence would certainly result from better targeting, given the pro-rich eligibility bias found above, some of which may be attributable to the stringent definition of indigent and the need for better outreach. While the premium schedule for informal sector enrollees is related to income, in practice most individuals wind up paying the same minimal premium as a result of a lack of good instruments for means testing.³⁶ Better means testing would improve the progressivity of these premiums.

³⁴ Bredenkamp et al. (2012).

³⁵ Akazili et al. (2011). In preliminary findings from a forthcoming study, Bredenkamp et al. using the older 2006 data, which reflect just the beginning of implementation of NHIS, find taxes and social insurance contributions mildly progressive, voluntary premiums to be progressive, but OOP payments to be slightly regressive. Combining all these effects they conclude that overall health care financing in Ghana is basically proportional to income.

³⁶ Hendriks (2010).

Similarly the still significant OOP, accounting for 37 percent of total health spending, is the major factor contributing to regressive financing. As NHIS expands to the rest of the population, in principle financed by largely progressive revenue sources, the progressivity of the financing system should improve, *ceteris paribus*. Newer household survey data is the *quid pro quo* for effectively monitoring the impacts of Ghana's overall health financing arrangements and NHIS on critical health systems goals of equity and financial protection.

Consumer Responsiveness

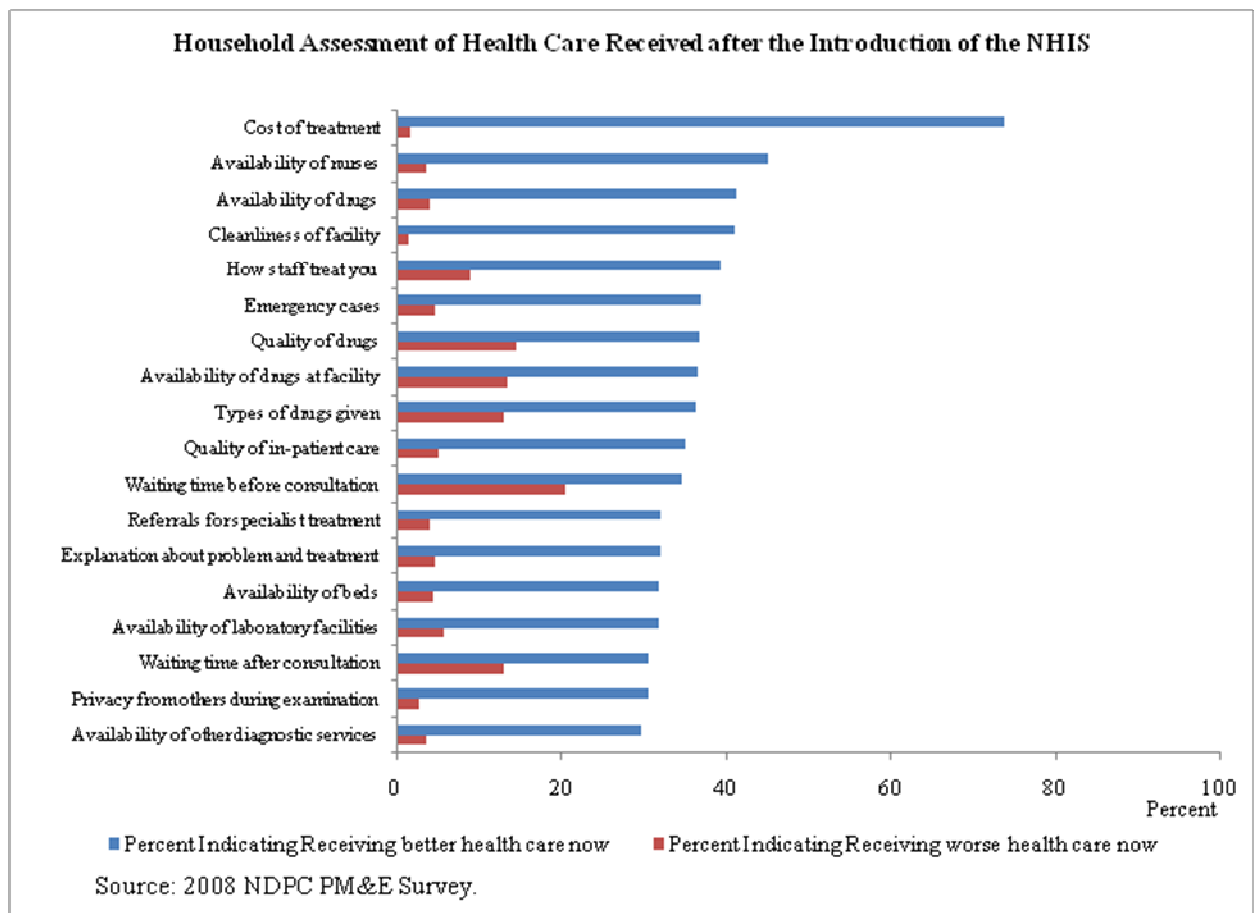
The third dimension of health system performance is consumer responsiveness. A properly functioning health system should respond efficiently and effectively to its consumers. A responsive system ensures that client expectations are met, complaints are addressed and quality of care is not compromised. Consumer satisfaction and responsiveness may also influence service utilization. In Ghana, the recent introduction of a national health insurance scheme has raised concerns that increased utilization of services may compromise quality of care.³⁷

The National Development Planning Commission's report on the 2008 Citizens' Assessment Survey of the NHIS included citizens' feedback on the scheme: perceptions on the benefit package, quality and affordability of health care. Overall, the scheme's performance was rated as high. The survey indicates that about 92 percent of insured members are either 'very satisfied' or 'satisfied' with the scheme. The dissatisfaction levels are low: less than 7 percent of the insured and less than 11 percent of the partially insured are 'dissatisfied' with the performance of the scheme. This pattern of performance is replicated by socioeconomic group as well as at the regional level. Almost 75 percent of the upper 20 percent income group and 81.5 percent of the lowest 20 percent income group are 'satisfied' or 'very satisfied' with the scheme's performance. Except in Greater Accra, over 76 percent of respondents were either 'very satisfied' or 'satisfied' with the performance of the scheme in each region. Respondents who were 'satisfied' with the scheme were most satisfied by the publicity or educational campaign of the scheme. Respondents who were not registered with the scheme indicated that premium collection and utilization of resources were areas of concern.

Additionally, the survey asked respondents to compare their experiences of the health system before and after the introduction of the NHIS. The most important benefit respondents of the survey indicated as having resulted from the introduction of the scheme was the 'low cost of treatment'. A majority (70 percent) of respondents revealed that due to the scheme they are now able to access medical care at an affordable cost. The Western Region was the only exception to this finding. Furthermore, about 40 to 45 percent of respondents revealed that issues such as the availability of nurses and drugs, cleanliness of facility and treatment of patients by staff had improved.

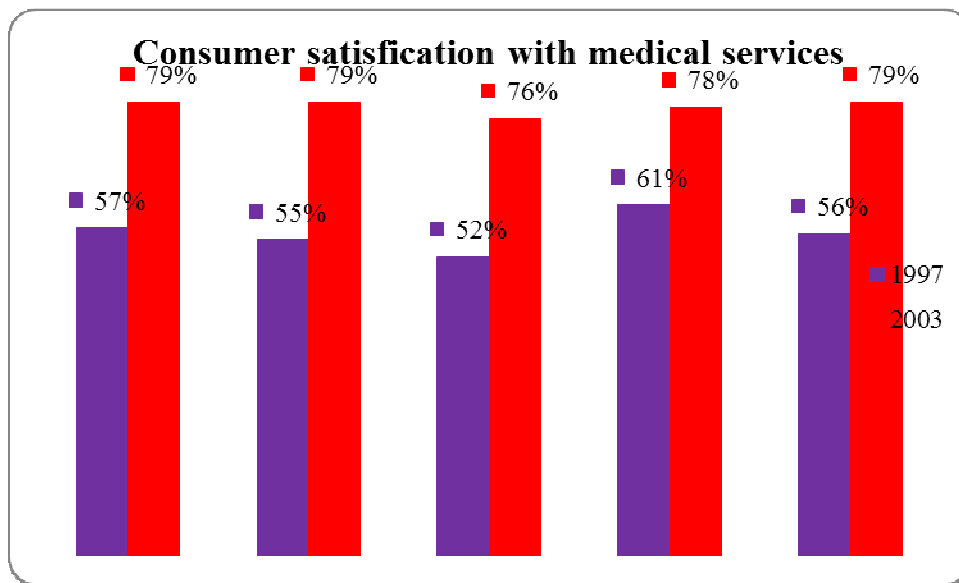
³⁷ McIntyre, D. (2007) Ghana: Country case study as referenced in NDPC Citizens' Assessment of the National Health Insurance Scheme (2008).

Figure 2.4: Household assessment of NHIS



Feedback from consumers on the overall quality of health care delivery is available through the Core Welfare Indicators Questionnaire (CWIQ) survey published by the Ghana Statistical Service. The survey provides a picture of poverty and living conditions at the national, regional and district levels. It has been conducted twice so far, first in 1997 and again in 2003. Given that the latest version is almost ten years ago, its relevance for capturing current consumer sentiments may be diminished. Nonetheless, under the health section, it collects information on client satisfaction with the health system. A comparison of the consumer satisfaction indicators for the two years suggests that client satisfaction increased. In 1997, 57 percent of persons who used health services were satisfied with the services they received, whereas in 2003 this figure rose to 79 percent. Regionally, the Central Region had the highest level of satisfied consumers (67 percent) in 1997 while the Ashanti Region had the highest (86 percent) in 2003. As shown in Figure 2.5 below, there is little variation in level of satisfaction across locations.

Figure 2.5: Consumer satisfaction with medical services



Sources: Core Welfare Indicators Questionnaire Survey 1997 and 2003.

Notes: [1]Health satisfaction is defined for persons who consulted a health practitioner in the four week preceeding the survey and who cited no problems.[2] Rural and Urban Poor is defined by calculating a composite index of indicators highly correlated to household consumption and utilized in the ranking of households from richest to poorest. 'Poor' households fall in the lowest quintile. The disaggregation into urban and rural is done based on location of the enumeration area of residence.

A 2006 review of six research projects³⁸ commissioned by the Health Research Unit of the Ghana Health Service indicated that users of health services were 'very satisfied' with specific programs and services but were 'dissatisfied' with the long waiting periods, poor personnel attitudes, illegal charges and unclean environment. This finding is corroborated by a recent study by Turkson (2009) which reported that 89 percent of the respondents were 'very satisfied' or 'satisfied' with the service they received during their visit to various facilities³⁹. Some participants in the study also identified such issues as insufficient and rude staff, long wait times and transportation limitations as additional factors that affect their satisfaction with the level of care they receive at the various providers. The study used a purposive sampling of 803 patients in the Komenda-Edina-Eguafo-Abrem district as a snapshot of rural Ghana to understand client impressions of health service delivery in rural Ghana.

Variations in quality of care at different facilities also affect consumer satisfaction. In a study which investigates how the choice of provider affect consumers level of satisfaction, Nketsiah-Amponsah (2009) analyses primary data from the Lawra, Dangme West and Ejisu-Juaben districts in Ghana and finds that 63 percent of users surveyed were satisfied with the health delivery system in general. Regarding types of providers, patrons of 'private medical care' had a higher level of satisfaction than those who obtained services from other providers.⁴⁰ Consumers of services by pharmacies and over the counter drug providers were most dissatisfied with the services they received. Even

³⁸ Cited in the 2007-2011 Strategic Plan of the Quality Assurance Department in the Institutional Care Division of the Ghana Health Service.

³⁹ The providers located in the Komenda-Edina_Eguafo-Abrem are: 1 specialist hospital for skin problems, 4 health centers/posts/clinics, 1 private hospital, 2 private maternity homes, and 1 community clinic.

⁴⁰ The providers included in this study are private, public, pharmacy/over-the-counter drug, traditional/faith healing and self treatment.

controlling for range of socioeconomic and demographic factors (mainly maternal age and education, sex of child, previous knowledge of health issues and marital status) the study still affirms its core findings that private health care users are more satisfied than public, pharmacy and traditional or faith healing providers.⁴¹ In the results of the analysis which employed an ordered logit model, consumers of 'private medical care' increased their satisfaction levels marginally by 31 percentage points, while users of public facilities' satisfaction was marginally increased by 19 percentage points only, a difference of 12 percentage points between the two types of providers. Provider characteristics such as proximity to clients and waiting period were negatively correlated with consumer satisfaction meaning that the farther away the consumer lived from the provider or the longer the consumer had to wait before seeing the health care specialist, the lower their level of satisfaction with the provider's services.

Both studies acknowledge the limitations associated with measuring consumer satisfaction. Which is that consumer satisfaction is subjective and can be influenced by such other factors as previous experiences, physical and psychological health and personal and societal values. The findings of the purposive sampling may also not necessarily be reflective of the sentiments of the larger populace.

Overall, a majority of consumers of health care in Ghana seem to be 'satisfied' with the service they receive, despite a very clear aversion to the long wait periods and the negative attitudes of some health workers. The high proportion of satisfied consumers observed in the studies is surprising giving the many challenges associated with accessing health care. As one researcher⁴² puts it, what comes across as 'satisfaction' maybe an indication that in resource constrained environments with limited alternatives, consumers of health care become content with the status quo.

⁴¹ Self treatment is used as the reference group.

⁴² Nketsiah-Amponsah, E. (2009).

Annex 2.1 - Performance Assessment of the Ghanaian Health System

This annex analyzes the performance of the system in terms of:

- a. Assessing changes over time in Ghana and other relevant Africa comparators in health outcomes (e.g., under 5 mortality, maternal mortality, and life expectancy), delivery system capacity (e.g., beds, physicians), and total, public and private health spending, and
- b. Benchmarking for the latest available year (2009) Ghana's performance relative to other comparable income countries and all countries globally in terms of health outcomes, spending, and delivery system capacity

Health Outcome, Input, and Expenditure Trends over Time

This section analyzes trends over time in health outcomes, inputs, and health spending. Changes in under 5 (U5) and maternal mortality and life expectancy in Ghana and other African comparators between 1960-2009 are analyzed as are changes in the key health system inputs of physicians and hospital beds. Trends in total health spending and its components (public, private, out-of-pocket (OOP), external) are assessed in terms of absolute levels, per capita, in constant and nominal local currency units (LCUs) and US\$ (in exchange rates and 'international dollars' – i.e., purchasing power parities (PPPs)), and as shares of the overall government budget and economy (GDP) for 1995-2009. These expenditure trends in Ghana are compared to those in several other neighboring countries. Various measures are used as there is no one overall 'right' way to measure health spending levels and trends within a given country and across countries. Each measure provides complementary information about health spending performance in terms of adjusting for various factors such as inflation, population, in absolute terms and as a share of the overall economy.

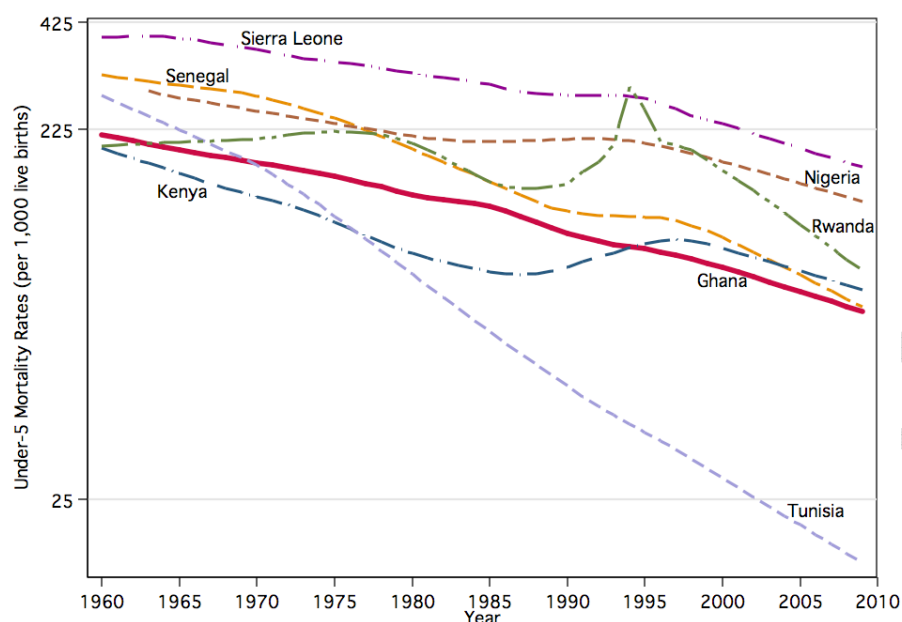
Health Outcomes

Figures 2.1 – 2.3 show the trends in under-5 mortality, maternal mortality,⁴³ and life expectancy from 1960-2009. While Ghana has reduced its U5 appreciably, it started from a much lower base than most of its neighboring countries and has actually made limited progress in reducing it. At these rates of reduction, like many of its neighbors and SSA overall, it is not likely to meet its U5 MDG goal of a two-thirds reduction by 2015.⁴⁴ As shown in Figure 2.2, a similar picture emerges for maternal mortality. Ghana started with a lower base level, but like many of its neighbors, its rates of reduction to date fall far short of achieving the three-quarters reduction in 2015 from its 1990 base level. As shown in Figure 2.3, for life expectancy Ghana also started from a much higher base than most of its neighbors, but nevertheless has shown sustained improvements resulting in having higher life expectancy than most neighbors and, as shown below, many SSA countries. Thus, on these three measures of health outcomes, while Ghana's absolute levels of performance on these three measures are generally better than many, although not all, of its neighboring countries, its rates of improvement have been lower, and it too is unlikely to meet its 2015 U5 and MMR goals. Moreover, as shown below for 2009, except for life expectancy Ghana's health outcome performance on U5 and MMR measures tends to be worse than other income and health spending comparators globally.

⁴³ The latest international data available for maternal mortality are for 2008.

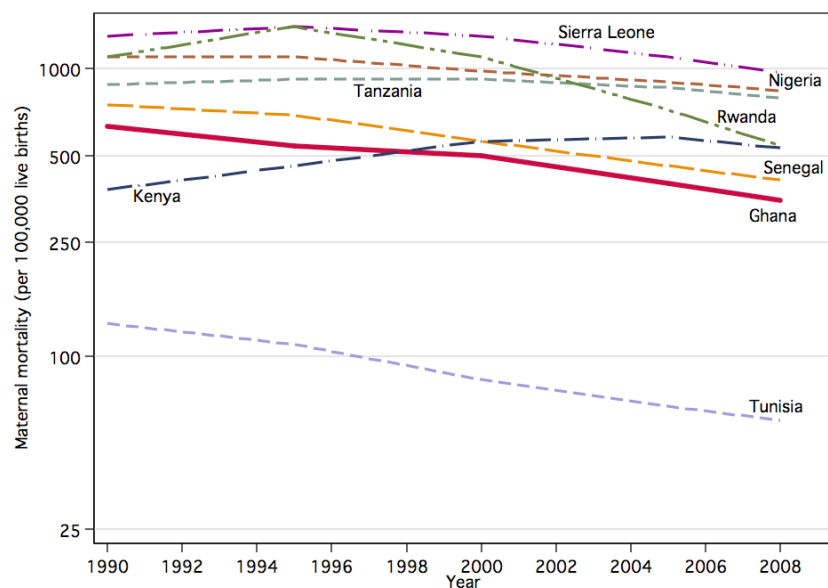
⁴⁴ See UNDP (2010). Some recent studies suggest that if Ghana continues and augments its recent expanded efforts, it has a chance to achieve the goal. See World Bank Ghana CSR (2012) and Nakamura, H. et al. (2011).

Figure 2.1: Under 5 mortality rate per 1000 children under 5, Ghana and select neighbors, 1960-2009



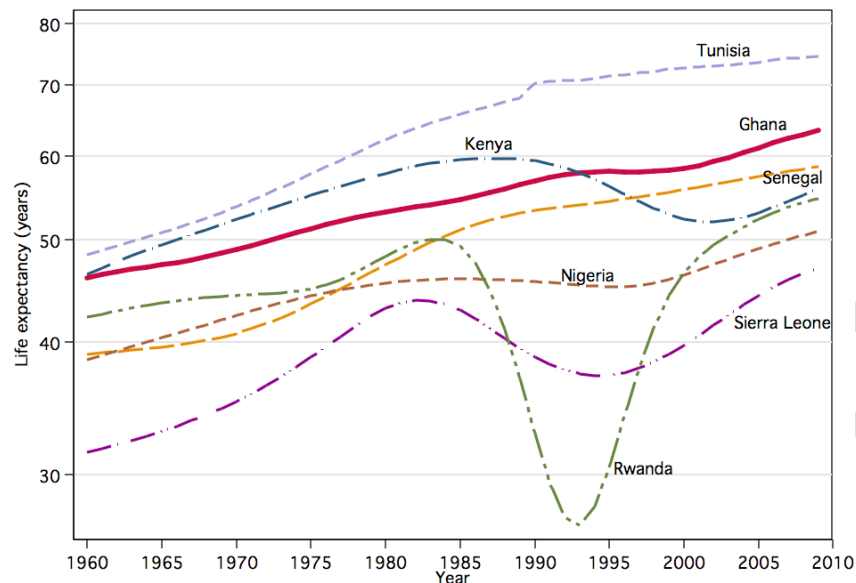
Source: WDI, 2011
Note: y-axis log scale

Figure 2.2: Maternal mortality rate per 100,000 live births, Ghana and select neighbors, 1990-2008



Source: WDI, 2011
Note: y-axis log scale

Figure 2.3: Life expectancy at birth; Ghana and select neighbors, 1960-2009



Source: WDI, 2011

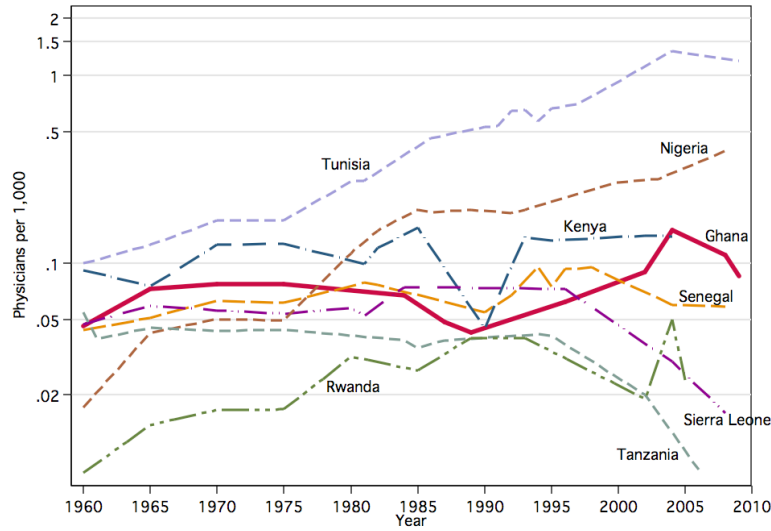
Note: y-axis log scale

Health System Inputs⁴⁵

Figures 2.4 and 2.5 compare trends in physicians and hospital beds per capita among Ghana and several neighboring countries from 1960-2009. On both of these measures Ghana's levels were close to the median both in 1960 and 2009. While the number of physicians per capita has increased significantly over the time period, the number of hospital beds per capita has been declining since 1985. Yet, globally as shown below, holding income and health spending constant, Ghana in 2009 appears to have fewer physicians and hospital beds per capita.

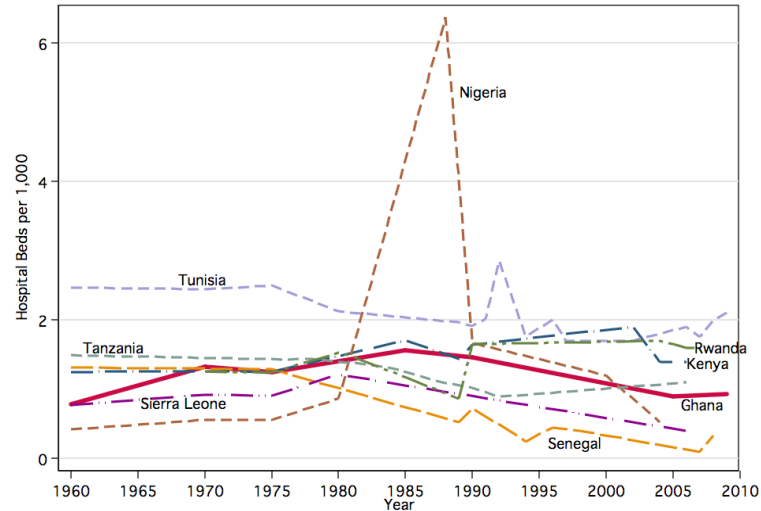
⁴⁵ See GHS (2009) *The Health Sector in Ghana: Facts and Figures 2009*, GHS for a more detailed assessment of Ghana's health system inputs.

Figure 2.4: Physician population ratio, Ghana and select neighbors, 1960-2009



Source: WDI, 2011
Note: y-axis log scale

Figure 2.5: Hospital beds to population ratio; Ghana and select neighbors; 1960-2009

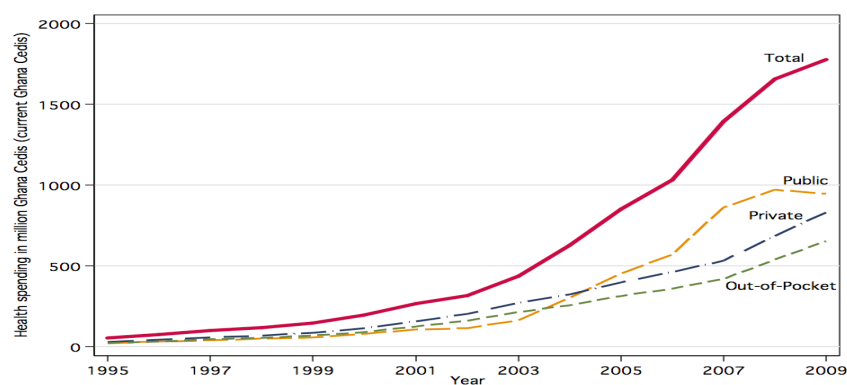


Source: WDI, 2011

Health Spending

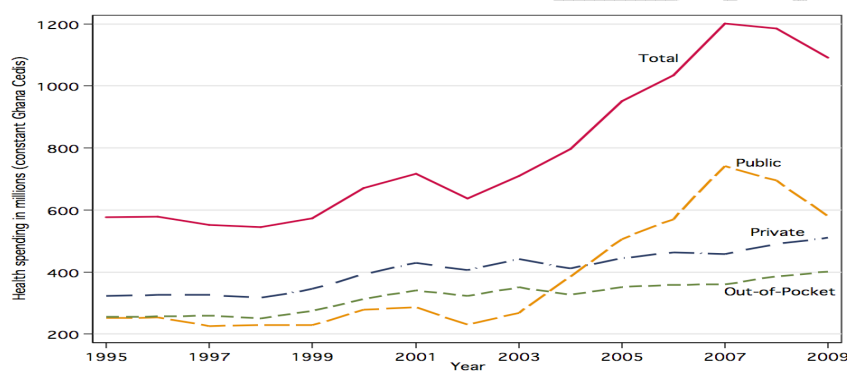
Figures 2.6 – 2.9 compare trends in total, public, private, and out-of-pocket health spending for Ghanaian local currency units (LCUs), adjusting for population growth and inflation for 1995-2009. Absolute and per capita levels of total health spending in nominal and constant (i.e., real) terms have increased over this period, with the largest increases in public spending.

Figure 2.6: Health spending in nominal LCUs, 1995-2009



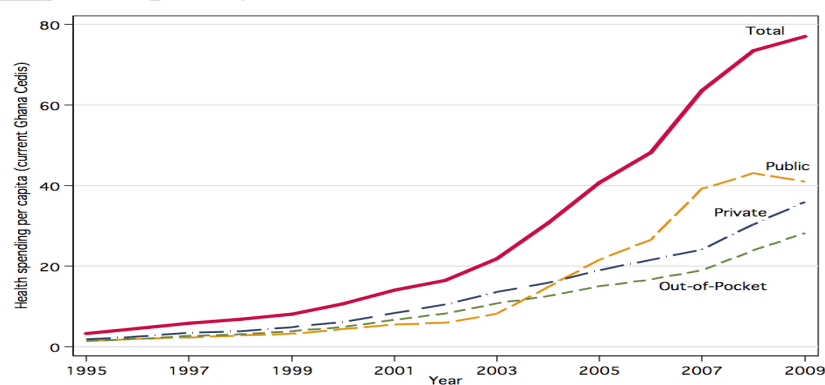
Source: WHO NHA, 2011

Figure 2.7: Health spending in constant LCUs, 1995-2009



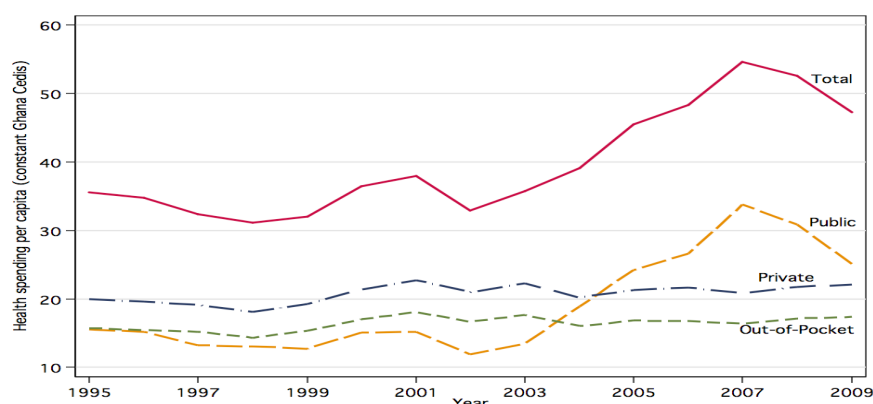
Source: WHO NHA, 2011

Figure 2.8: Per capita health spending in nominal LCUs, 1995-2009



Source: WHO NHA, 2011

Figure 2.9: Per capita health spending in constant LCUs, 1995-2009



Source: WHO NHA, 2011

Table 2.1 displays Ghana's nominal elasticities of total, private and public health spending relative to GDP for 1995-2009 as well as for the 1995-2003 and 2004-2009 sub-periods. Over the entire 1995-2009 period, nominal health spending in Ghana increased annually almost 3 percentage points faster than GDP (elasticity of 1.028), compared to a SSA average of health spending increasing some 9 percent more rapidly than GDP (1.086). Public spending increased annually about 13 percentage points more rapidly than GDP (1.130), while private spending increased some 7 percentage points less rapidly (0.927), compared to an SSA average increase of 17 percent more rapidly than GDP for public spending (1.172) and 2 percentage points more rapidly for private spending (1.018). However for the 2004-2009 NHIS implementation period, total health spending increased annually at the same rate as GDP (1.000), public health spending increased 11 percentage points more rapidly than GDP (1.113), and private spending increased 13 percentage points *less* rapidly (0.872).

Table 2.1: Elasticity of health expenditure response to GDP growth in Ghana and sub-Saharan Africa

	Total			Public			Private		
	1995-2009	1995-2003	2004-2009	1995-2009	1995-2003	2004-2009	1995-2009	1995-2003	2004-2009
Ghana	1.028	0.935	1.000	1.130	0.862	1.113	0.927	0.983	0.872
Sub-Saharan Africa	1.086			1.172			1.018		
Sub-Saharan Africa excluding South Africa	1.087			1.175			1.018		

Source: WHO NHA, 2011

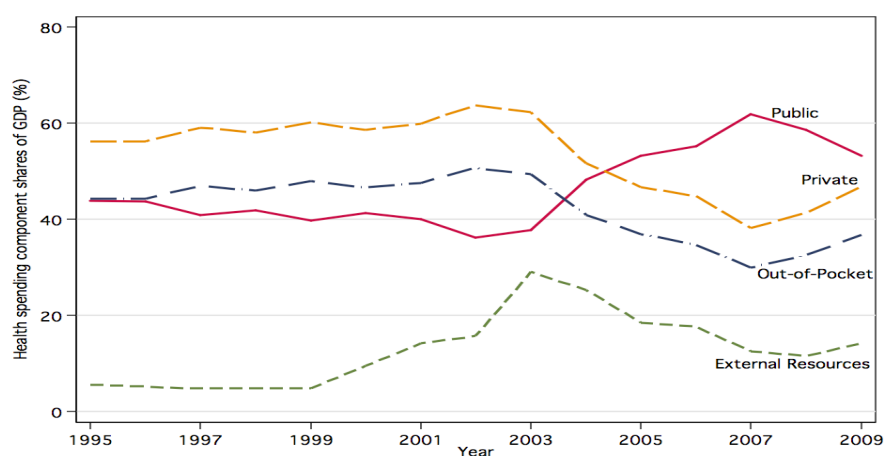
Table 2.2 displays Ghana's nominal elasticities of total and public health spending relative to total government revenue and expenditures for 1995-2009 as well as for the 1995-2003 and 2004-2009 sub periods. Over the entire 1995-2009 period, *total* health spending increased annually almost 8 percentage points less rapidly than total government revenue (0.921) and 1 percentage point more rapidly than total government spending (1.012). Over the same time period, *public* health spending increased annually about 1 and 12 percentage points more rapidly than total government revenue and total government expenditure, respectively (1.013, 1.119). For the 2004-2009 NHIS implementation period, *total* health spending increased some 3 percentage points more rapidly than total government revenue (1.030) and 9 percentage points less rapidly than total government spending (0.905). *Public* health spending increased annually by about 15 and 2 percentage points more rapidly than total government revenue and expenditure, respectively (1.148, 1.021).

Table 2.2: Elasticity of health expenditure response to total government revenue and expenditure in Ghana

	Total Health Spending			Public Health Spending		
	1995-2009	1995-2003	2004-2009	1995-2009	1995-2003	2004-2009
Total Government Revenue	0.921	0.826	1.030	1.013	0.764	1.148
Total Government Spending	1.012	1.018	0.905	1.119	0.943	1.021

Source: WHO NHA, 2011

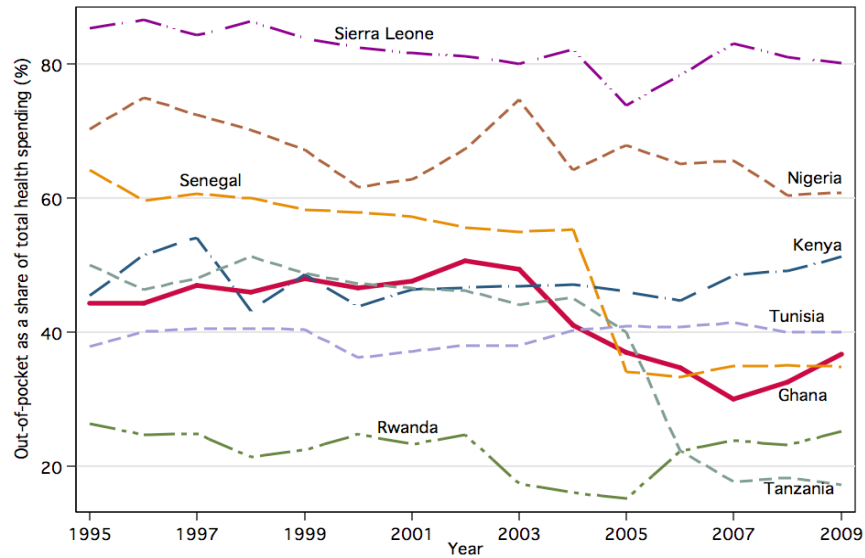
Figure 2.10 shows changes in the public, private, OOP, and external shares of total health spending for 1995-2009. While the share of external funding has dropped from some 30 percent of all spending in the early 2000s to some 14 percent in 2009, the public share has been increasing since 2004 except for a slight decrease in 2008 and 2009, which is perhaps related to the global financial crisis. The private and OOP shares have been declining except for a slight increase in 2008 and 2009. Thus it would appear that the implementation of the NHIS in 2005 is associated with an increasing relative level of public financing on health and reduced out-of-pocket spending.

Figure 2.10: Shares of total health spending, 1995-2009

Source: WHO NHA, 2011

Figure 2.11 shows how Ghana's trend in OOP compares to several neighboring African comparators. Ghana's OOP share has declined from about 44 percent of all health spending in 1995 to 37 percent in 2009. While still relatively high in terms of providing financial protection, it mirrors the relatively unimpressive performance in the African comparator group except for Senegal and Tanzania.

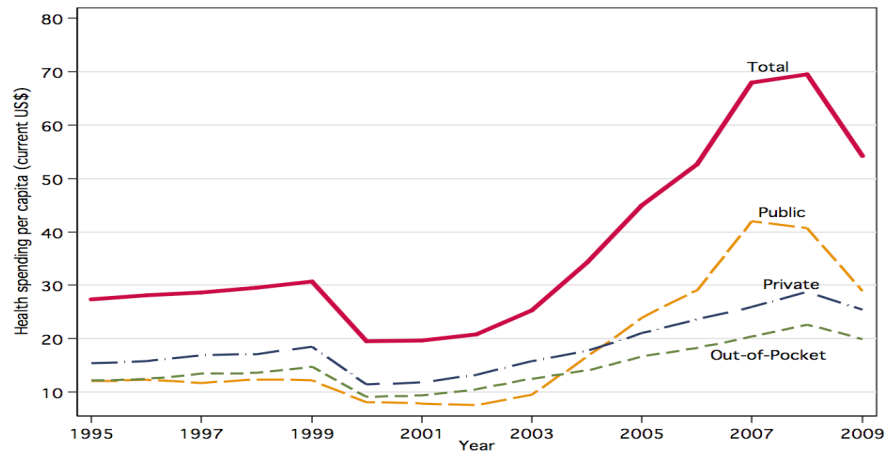
Figure 2.11: OOP shares in select African countries: 1995-2009



Source: WHO NHA, 2011

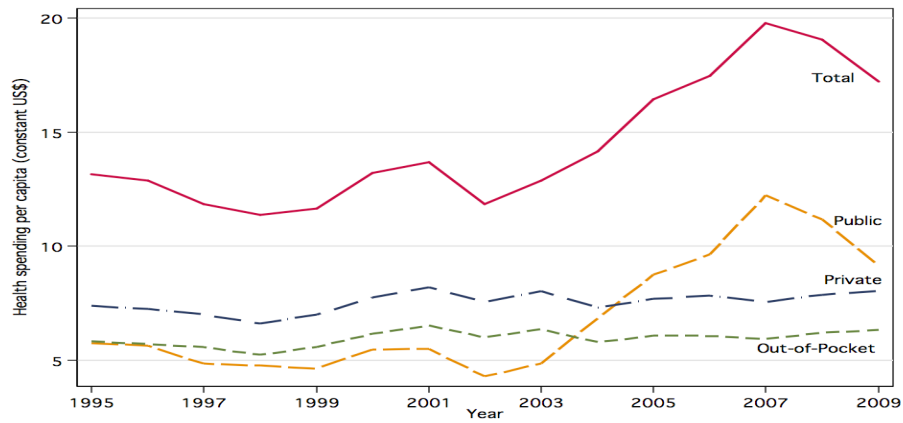
One can also evaluate health spending in a single numeraire currency such as \$U.S., which facilitates comparisons with other countries. Figures 2.12 – 2.15 show the trends in Ghana's per capita health spending in nominal and constant exchange rate-based and international U.S. dollars. The results parallel the LCU analysis, whereby per capita spending in \$US has been increasing, except for 2008 and 2009, both in exchange rates and PPPs, both in nominal and real terms, although the real rates of increase are lower.

Figure 2.12: Nominal per capita health spending (US\$ Exchange Rates), 1995-2009



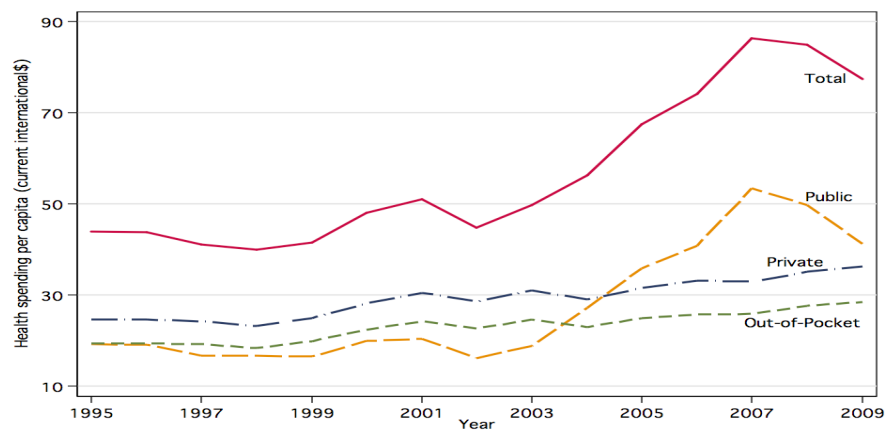
Source: WHO NHA, 2011

Figure 2.13: Constant per capita health spending (US\$ Exchange Rates), 1995-2009



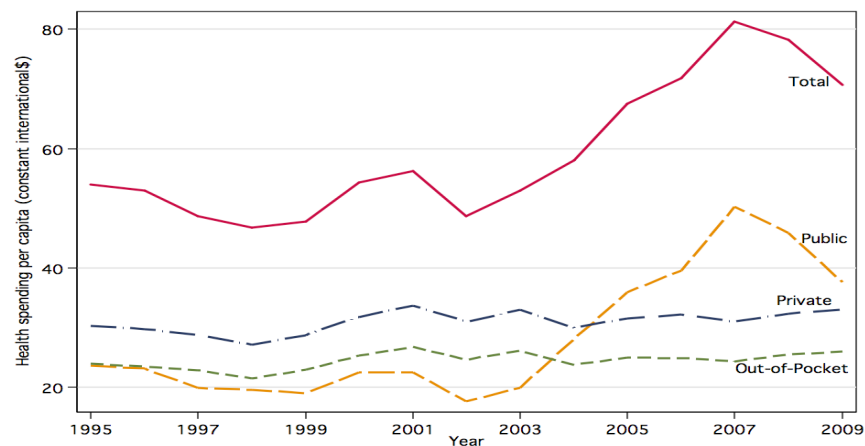
Source: WHO NHA, 2011

Figure 2.14: Nominal per capita health spending (US\$ PPPs), 1995-2009



Source: WHO NHA, 2011

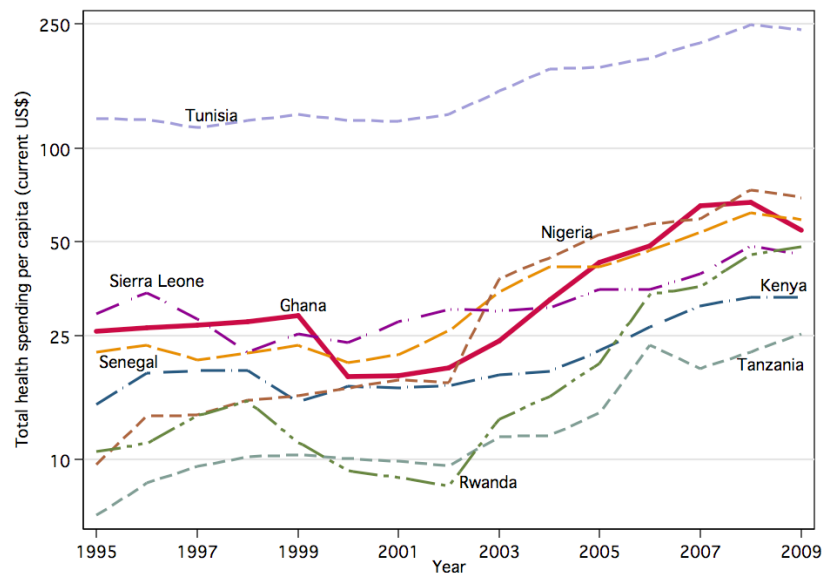
Figure 2.15: Constant per capita health spending (US\$ PPPs), 1995-2009



Source: WHO NHA, 2011

Figures 2.16 and 2.17 compare Ghana's trends in nominal exchange rate and PPP-based US\$ health spending per capita over the 1995-2009 period with the trends in several other neighboring African comparators. With the exception of the very high rate of growth in Tunisia, Ghana's growth trends mirror those of its African neighbors. We now assess Ghana's health spending trends when health spending is measured as a share of GDP.

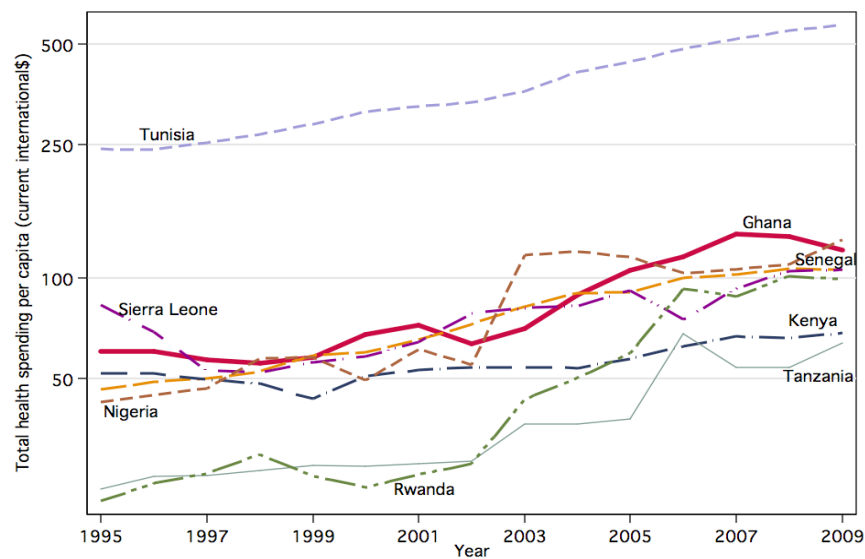
Figure 2.16: Nominal per capita health spending (US\$ Exchange Rates): select African comparators, 1995-2009



Source: WDI, 2011

Note: y-axis log scale

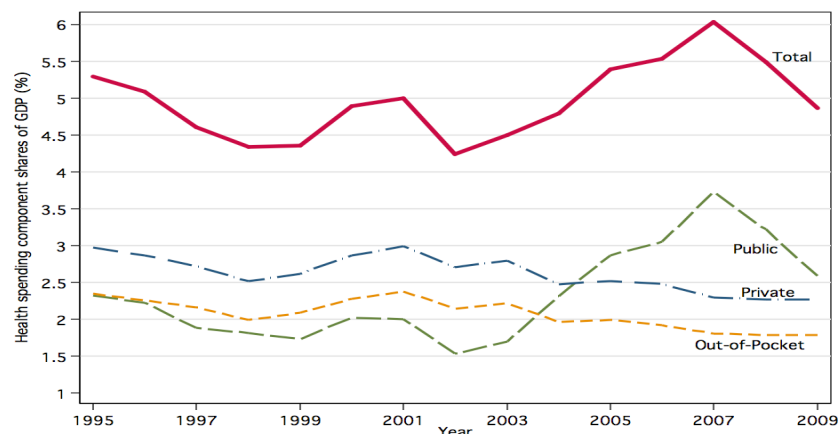
Figure 2.17: Nominal per capita health spending (US\$ PPPs): select African comparators, 1995-2009



Source: WDI, 2011
Note: y-axis log scale

Figure 2.18 shows for 1995-2008 Ghana's trends in total, public, private and OOP health spending as a share of GDP.

Figure 2.18: Health spending and its components as shares of GDP

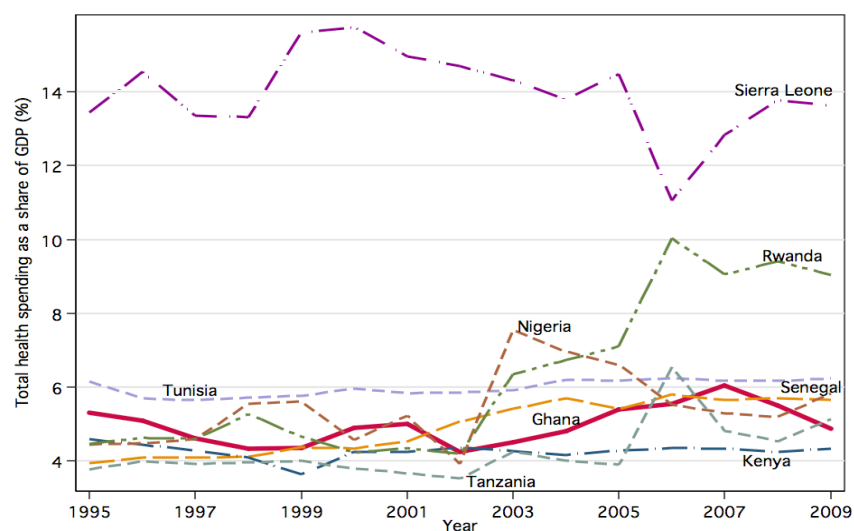


Source: WHO NHA, 2011

Total health spending as a share of GDP has decreased from 5.3 to 4.9 percent of GDP over the 1995-2009 time period. As in the case of the absolute and total shares analyses, public spending on health as a share of the GDP has increased significantly between 2004 and 2007 but its 2009 level is only slightly higher than its 1995 level. Private and out-of-pocket spending shares of GDP have declined steadily since 1995. As shown in Figures 2.19-2.21 below, compared to other neighboring African countries: (1) Ghana's share of the economy devoted to health has declined over this period compared to increases in most other comparators (Figure 2.19) and compared to all SSA countries (elasticity of 1.03 versus 1.09); (2) its public spending on health as a share of GDP is only slightly higher

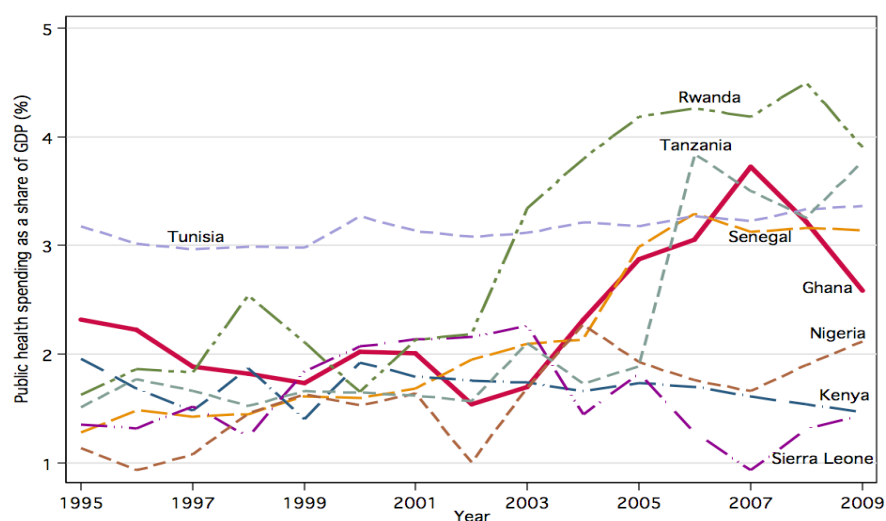
than its 1995 level and below the levels and increases in several other countries (Figure 2.20) and also lower than the SSA average (1.13 versus 1.17) ; and, (3) the share of the government budget devoted to health is higher than its 1995 level and the levels of most comparators with the exception of Rwanda and Tanzania, but below the 15 percent Abuja target (Figure 2.21). As shown in Table 2.2 above this results from the fact that Ghana's government health spending increased annually some 12 percent per year more rapidly than overall government spending over this 1995-2009 time period.

Figure 2.19: Total health spending as a share of GDP: select African comparators



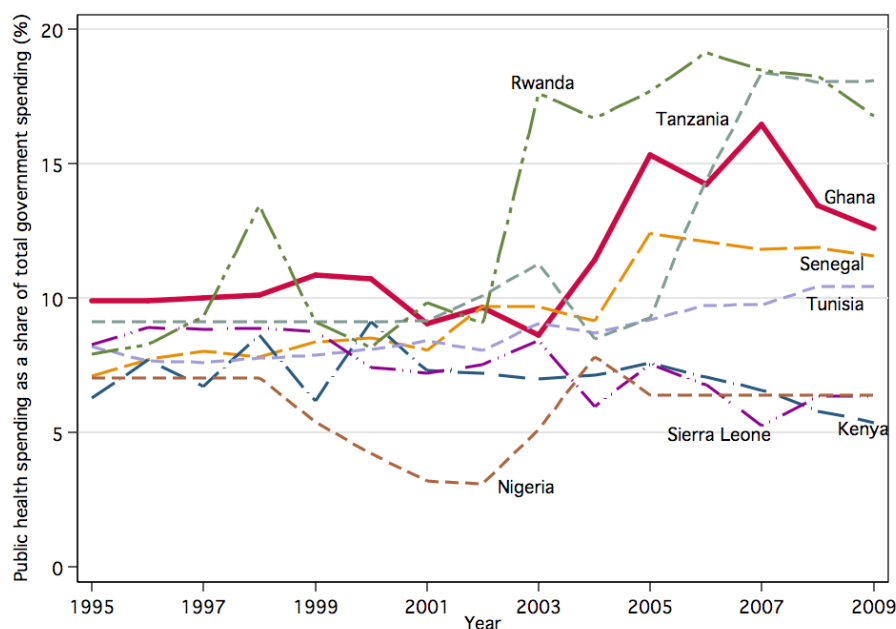
Source: WHO NHA, 2011

Figure 2.20: Public spending on health as a share of GDP: select African comparators



Source: WHO NHA, 2011

Figure 2.21: Public spending on health as a share of the government budget: Ghana and select African comparators



Source: WHO NHA, 2011

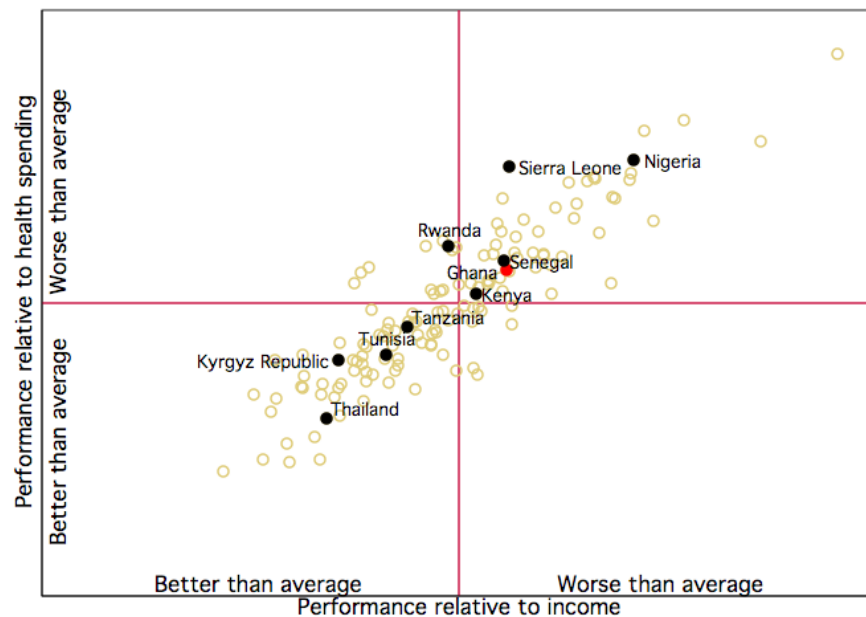
Ghana's Performance Benchmarked against Other Similar Income and Health Spending Countries

Rigorous assessments of any country's health system's performance are difficult for a number of well-known methodological and data reasons. As a result global benchmarking of health outcomes, inputs, and health spending is often used to provide an indication of where a country's performance relative to global averages for comparable income and health spending countries may appear to be out of line. While there is nothing sacrosanct about a global average, it is one easy to measure metric for assessing comparative performance. Such assessments along a number of different health system's dimensions can provide useful information about sources of health spending, health outcome and financial protection performance and value for money. However, in interpreting these results, one must keep in mind that Ghana has only recently entered the ranks of being a LMIC. Thus, its institutions and health system's structures may not be strictly comparable to other countries of much longer LMIC durational status.

Health Outcomes

Figures 2.22 – 2.27 provide information on how Ghana performs relative to other comparable income and health spending countries vis a vis U5 mortality, maternal mortality, life expectancy, and disability-adjusted life years (DALYs).

Figure 2.22: Global comparisons of under five mortality versus income and total health spending, 2009

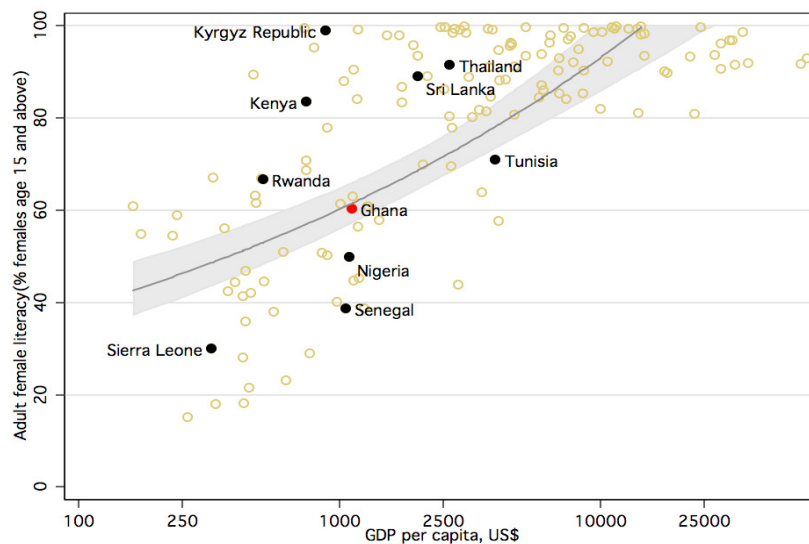


Sources: World Development Indicators & WHO, 2011

As shown in Figure 2.22, Ghana's U5 mortality is higher relative to both comparable income and health spending countries.⁴⁶ This may in part be due to a number of factors including Ghana's barely average adult female literacy level (Figure 2.23) and as shown below (Figure 2.25) relatively low levels of skilled birth attendance as well as lack of infrastructure and personnel in rural areas and too much relative focus on hospitals and tertiary care. Given that Ghana is not on track to achieve its U5 MDG Goal, it will be important to fully understand the factors responsible for Ghana's poor performance on this indicator, particularly now that Ghana is a LMIC, not a LIC.

⁴⁶ The results are similar for infant mortality albeit relative to its (relatively low level) health spending, it is only slightly above the global average. The results found for: infant, U5, and maternal mortality as well as life expectancy below are the same irrespective of whether the analysis is run in exchange rates or purchasing power parities.

Figure 2.23: Adult female education relative to income, 2009



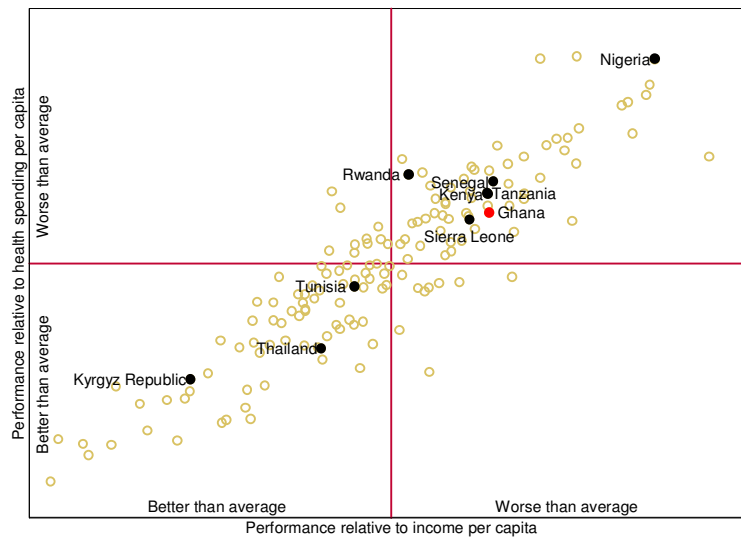
Sources: World Development Indicators & WHO, 2011

Note: x-axis log scale; female literacy and GDP per capita are for latest year available

As shown in Figure 2.24, a similar picture emerges with respect to maternal mortality, where Ghana's maternal mortality is much worse than other comparable income and health spending countries.⁴⁷ Recent NHIS changes in eliminating waiting periods for children and providing free maternal care for pregnant women should help lead to improvements in Ghana's U5 and maternal mortality performance in future years. Skilled birth attendance may be an important contributing factor to this past poor performance, and as shown in Figure 2.25 skilled birth attendance in Ghana is slightly lower than it is in other comparable income and health spending countries. It will be important for Ghana to fully understand the reasons for this in order to deal with its poor results on a second important MDG indicator, for which the country is not on track to achieve its MDG goal.

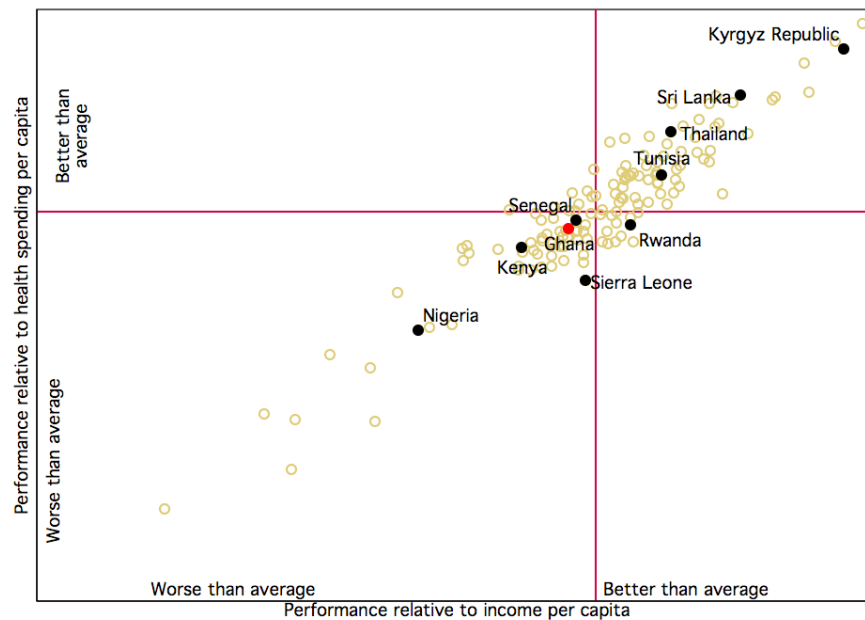
⁴⁷ The latest available international data for maternal mortality are for 2008.

Figure 2.24: Global comparisons of maternal mortality relative to income and spending, 2008



Sources: World Development Indicators & WHO, 2011

Figure 2.25: Global comparisons of attendance of skilled health workers, 2009

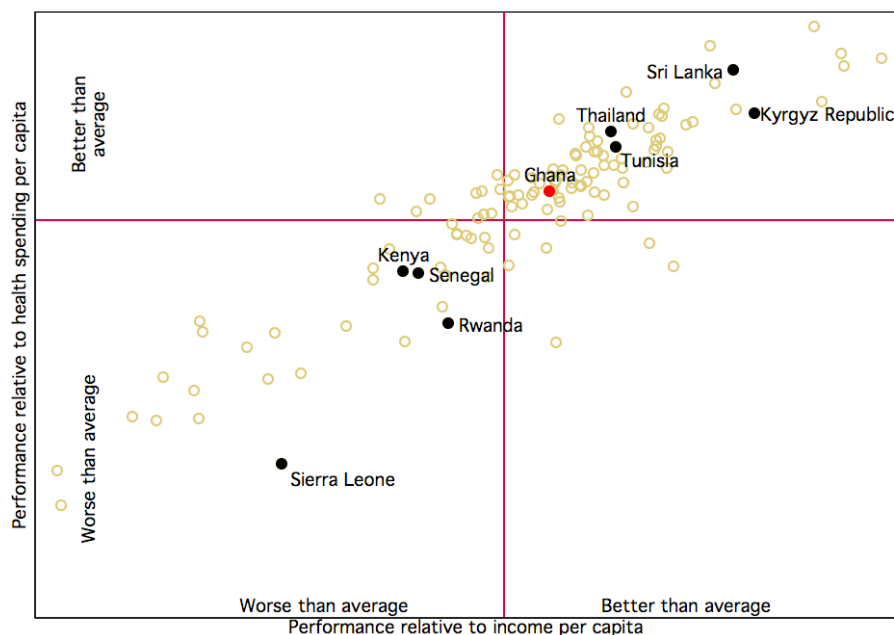


Sources: World Development Indicators & WHO, 2011

Note: Both axes log scale; data are latest available year 2003-2008

With respect to Figure 2.26 below, Ghana's performance on life expectancy is better than comparable income and health spending countries. Life expectancy has increased by almost three years over the 2004-2009 NHIS implementation period, rising to 63.4 years in 2009.

Figure 2.26: Global comparisons of life expectancy relative to income and spending, 2009



Sources: World Development Indicators & WHO, 2011

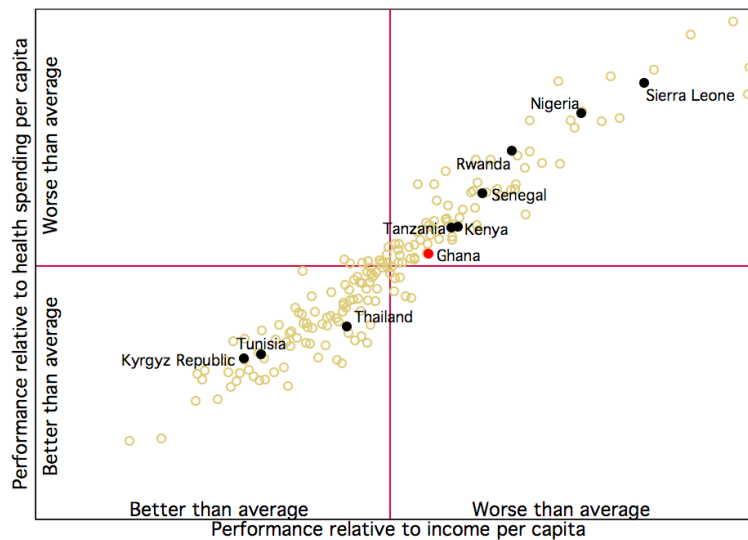
Note: Both axes log scale

Despite as shown above Ghana's significant improvements over time in health outcomes, the above analysis provides a rather challenging picture of Ghana's relative performance on health outcomes, where on several important MDG outcome measures, except for life expectancy, in 2009 it performs worse than other global income and health spending comparators. Unfortunately, there is no 'gold standard' for measuring a country's overall health outcome/health status performance. Nevertheless, DALYs (e.g., disability adjusted life years) are often used as an aggregate measure of overall health status, measuring how effectively countries extend life and limit disability. While the most recent global data available for all countries are only for 2004, it is useful to see how Ghana performs relative to other comparable income and health spending countries on this aggregate health outcome measure.

As shown in Figure 2.27 below, Ghana in 2004 appears to have had more premature death and disability than other comparable income and health spending countries. While attributing such performance to specific policies or socio-economic/cultural/institutional factors is not possible, there are many methodological issues concerning the development of DALYs, particularly in countries like Ghana; and, the data predate the implementation of NHIS. Nevertheless, the picture that emerges here reinforces the results from both the trend analysis with some Africa neighbors as well as the global benchmarking -- that Ghana's performance on some key health outcomes appears problematic.

It is also perhaps worth noting that many of Ghana's neighboring African countries also share this relatively poor comparative performance on health outcomes. As the comparators are global and the only factors being held constant are income and health spending per capita, it is plausible that Ghana and Africa more generally face much larger health risks due to factors like climate, malaria, HIV/AIDs, etc. Further analyses of this type should try to control for these underlying conditions.

Figure 2.27: DALYs per capita relative to income and spending, 2004



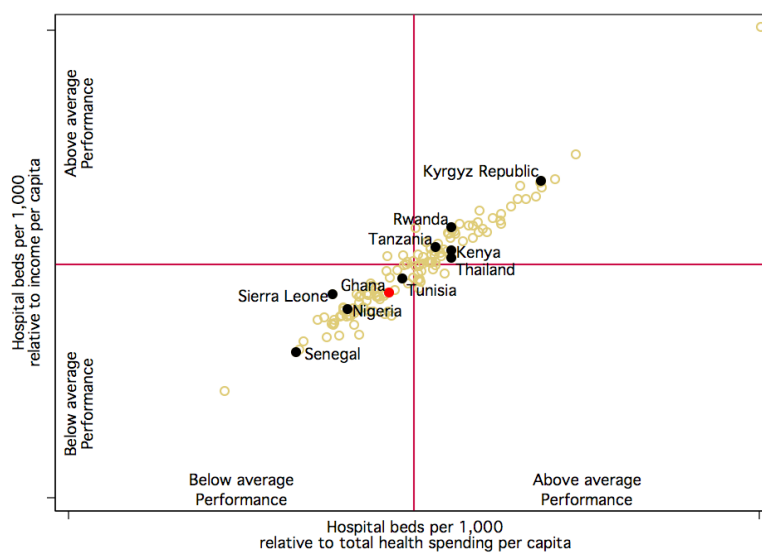
Sources: World Development Indicators & WHO, 2011

Note: Both axes log scale

Health System Inputs

Health outcomes are dependent on numerous interrelated factors including health system inputs. In Figures 2.28-2.30 below Ghana is compared to other comparable income and health spending countries globally with respect to hospital beds, physicians, and total health manpower. Skilled birth attendants were assessed above.

Figure 2.28: Hospital beds to population ratio relative to total health spending and income

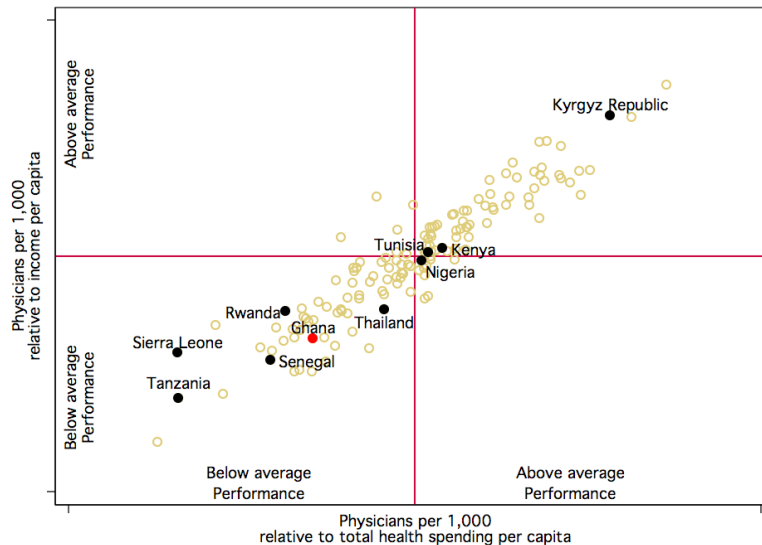


Sources: World Development Indicators & WHO, 2011

Note: Beds and GDP per capita data are for the latest available year

As shown in Figure 2.28, Ghana's hospital bed to population ratio is below the levels found in other comparable health spending and income level countries. Obviously, the distribution (and staffing) of beds is also clearly an important issue, given the large urban-rural disparities in Ghana.

Figure 2.29: Physician population ratio relative to total health spending and income



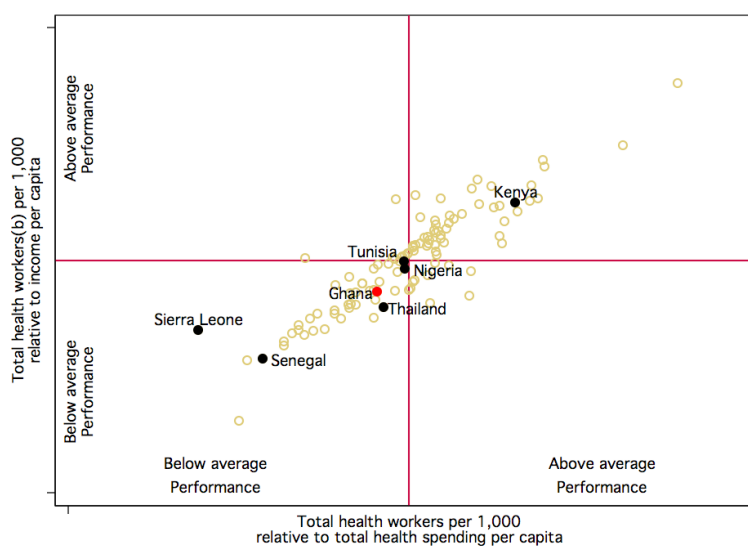
Sources: World Development Indicators & WHO, 2011

Note: Physicians and GDP per capita data are for the latest available year

As shown in Figure 2.29, Ghana's physician to population ratio is well below the levels found in other comparable income and health spending countries. However, one must also look beyond the absolute numbers at the specialty mix, relative remuneration, location, productivity, and the numbers and mix of other health workers as well as equipment and facilities.

In addition to relatively low levels of hospital beds and physicians, as shown in Figure 2.29, Ghana's overall level of total health workers per capita is low relative to other income and health spending comparators. Ghana's relative poor performance on health outcomes may well be partially attributable both to its relative low numbers of doctors and other health workers and the distribution and efficiency of use of its human and physical infrastructure per capita.

Figure 2.30: Total health workers to population ratio relative to total health spending and income



Sources: World Development Indicators & WHO, 2011

Note: Data are for latest year available 2000-2009; total health workers include physicians, nurses and midwives, dentistry, and pharmaceutical personnel

The above comparative analysis suggests that for its health spending and income levels Ghana's specific and aggregate health outcomes are generally worse than the comparator averages and could be improved along several dimensions. Similarly in terms of its physical infrastructure and health manpower, Ghana has fewer inputs per capita than other comparable income and health spending countries. Thus, for its spending and income levels Ghana does not appear to get good value for money in terms of health outcomes and quantitative numbers of inputs, although micro efficiency and quality need to be carefully assessed. However, to more fully understand the system's performance, one must also analyze its financing performance including the level of financial protection, the system's fairness/equity, and consumer satisfaction as well as technical efficiency at the micro level.

Financing Parameters

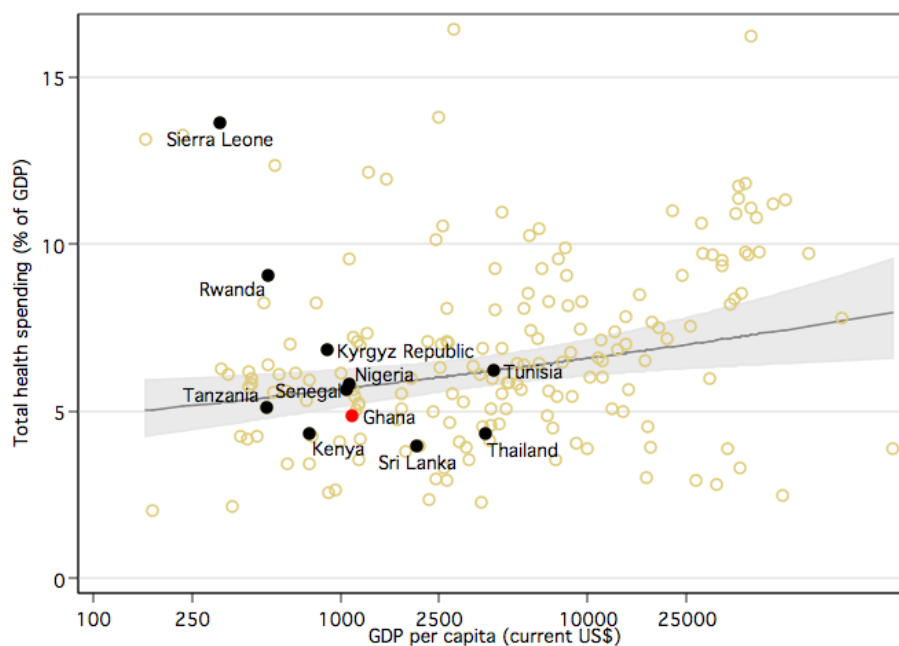
This section analyzes financial performance including financial protection and equity using the latest 2009 information from the WHO's NHA. It provides a global performance assessment of the Ghana's health financing system in 2009. Nevertheless, one must bear in mind that Ghana's NHA estimates are based on an old 2002 NHA benchmarking exercise, which desperately needs to be updated. On the other hand, the WHO NHA data base is the only consistent international source for these types of data.

Total Health Spending

Total health spending can be measured as a share of the economy (GDP) or in per capita spending in US dollars based on exchange rates or international dollars (purchasing power parities). In 2009 total health spending in Ghana was 4.9 percent of GDP, \$54 per capita in exchange rates and \$125 in international dollars. Figure 2.31 shows Ghana's health spending in 2009 as a share of GDP relative to other comparable income countries, while Figures 2.32-2.33 display per capita spending in both exchange rates and international dollars. Ghana's total health spending as a share of GDP in 2009 is below average for a country of its income level, while total health spending per capita in both exchange rates and international dollars are close to the global averages. The GDP revision has substantially changed the picture of Ghana's relative situation globally because based on the old GDP figures Ghana was spending close to 8 percent of its GDP on health, compared to 4.9 percent with the revised data. While the per

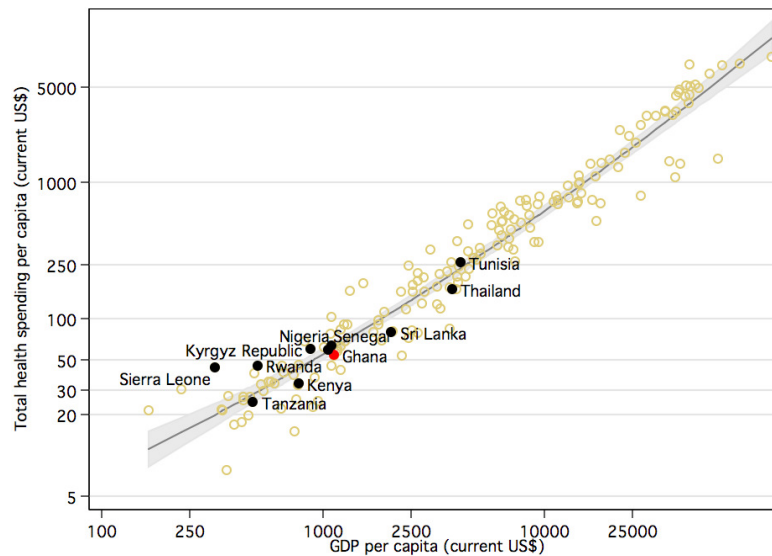
capita figures were the same at some \$54 in exchange rates and \$125 in PPPs, Ghana per capita spending was above the global averages based on the old GDP figures, but close to the global averages when compared to \$1200 per capita GDP countries. Thus total health spending in Ghana based on these three measures appears to be slightly below or at the global averages compared to its previous pre GDP revaluation situation of being above the global averages for a country of its income level.

Figure 2.31: Total health expenditure as a share of GDP versus income per capita, 2009



Sources: World Development Indicators & WHO, 2011
Note: x-axis log scale

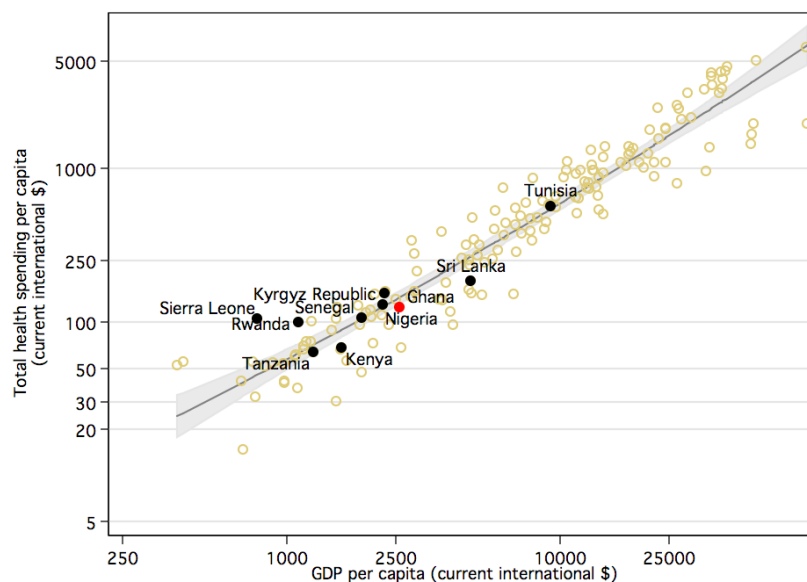
Figure 2.32: Total health expenditure per capita versus income per capita in current US\$, 2009



Sources: World Development Indicators & WHO, 2011

Note: Both axes log scale

Figure 2.33: Total health expenditures per capita versus income per capita in current international \$, 2009



Sources: World Development Indicators & WHO, 2011

Note: Both axes log scale

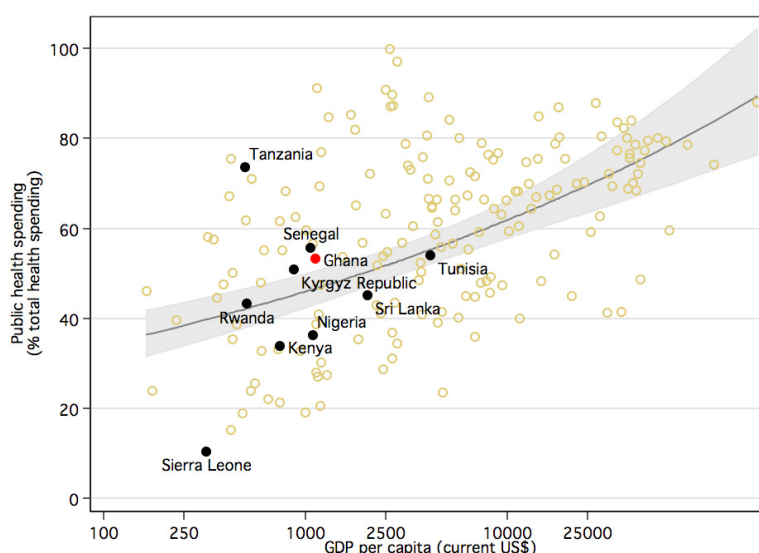
Public Spending on Health

Public spending on health can also be measured in a number of ways including: as shares of total health spending and GDP, public spending per capita in exchange-rate-based and international dollars, and public spending on health as a share of all public spending. In 2009 public spending on health in Ghana accounted for slightly more than half

of total health spending, 2.6 percent of GDP, \$29 per capita in exchange rates and \$66 per capita in international dollars, and accounted for some 12.6 percent of the total government spending.

Figures 2.34-2.38 provide global comparisons for 2009. Public spending on health in Ghana, measured as share of the total health spending (Figure 2.34) and share of total government spending (Figure 2.38) is well above average for a country of Ghana's income level. As a share of GDP (Figure 2.35), public spending on health is about average for a country of its income level as are public spending on health in per capita terms in both exchange rates (Figure 2.36) and international dollars (Figure 2.37). As in the case of total spending, this contrasts rather sharply with the pre-GDP revision situation, where Ghana's public spending on health would have been above the global averages on most of these measures. Also interestingly, as shown in Figure 2.43 below, in 2009 Ghana like many other African countries has not reached the Abuja target of dedicating 15 percent of the government budget to health.

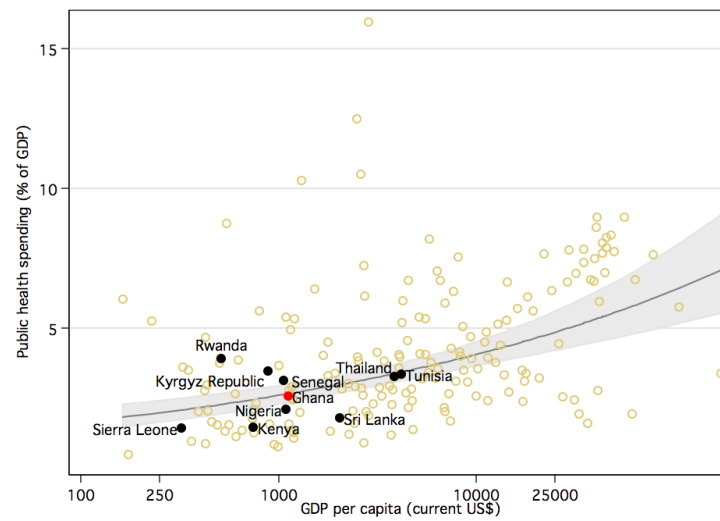
Figure 2.34: Public expenditure on health as a share of total health expenditure and GDP per capita, 2009



Sources: World Development Indicators & WHO, 2011

Note: x-axis log scale

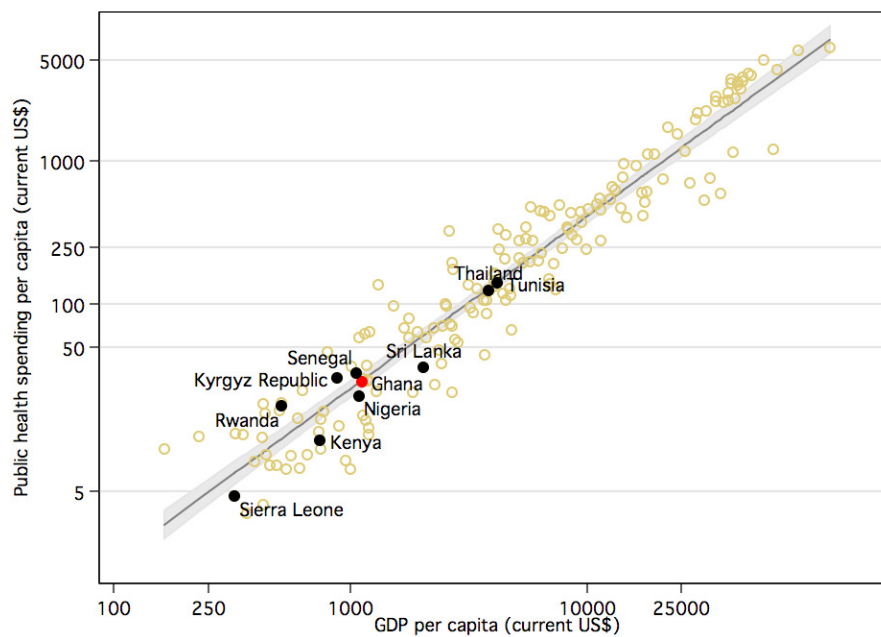
Figure 2.35: Public health expenditure as a share of GDP versus income per capita, 2009



Sources: World Development Indicators & WHO, 2011

Note: x-axis log scale

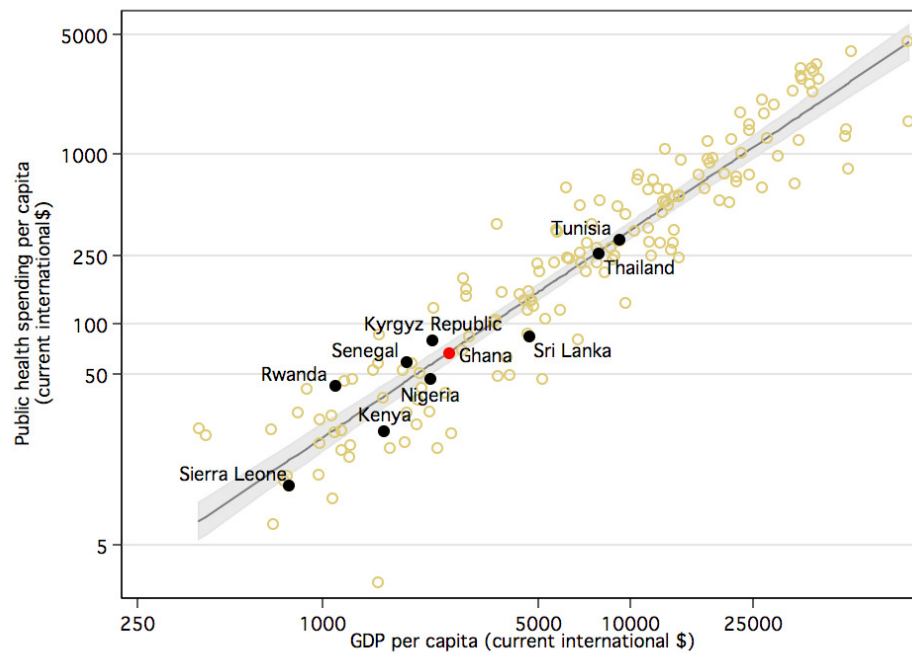
Figure 2.36: Public health expenditure per capita versus income per capita in current US\$, 2009



Sources: World Development Indicators & WHO, 2011

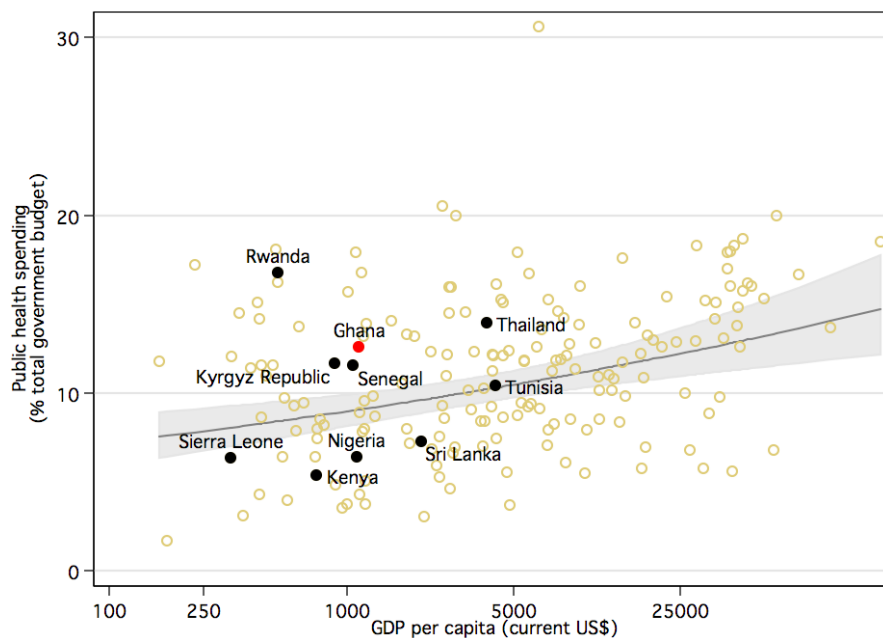
Note: Both axes log scale

Figure 2.37: Public health expenditure per capita versus income per capita in current international \$, 2009



Sources: World Development Indicators & WHO, 2011
Note: Both axes log scale

Figure 2.38: Public health expenditure as a share of total government expenditure versus income per capita, 2009



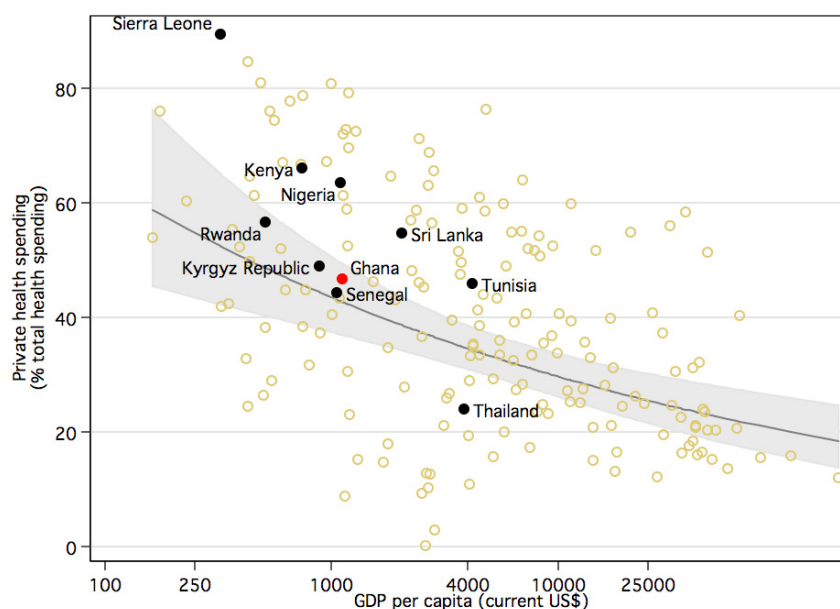
Sources: World Development Indicators & WHO, 2011
 Note: x-axis log scale

Private Spending

Private spending levels and trends are especially important as they have critical implications for financial protection and the fairness/equity of the system. Moreover as countries develop and expand health insurance coverage, private spending as a share of total health spending declines, while government health spending increases. Of particular importance is out-of-pocket spending as this directly impacts households' financial status, whereas expenditures through private insurance and/or self-insuring businesses provide some modicum of financial protection through the pooling of risks and their redistribution among healthy and sick individuals and households. In Ghana private spending in 2009 accounted for slightly less than half of all health spending, 2.2 percent of GDP, \$25 per capita in exchange rates and \$58 per capita in international dollars. Out-of-pocket payments account for 79 percent of all private spending and 37 percent of total health spending.

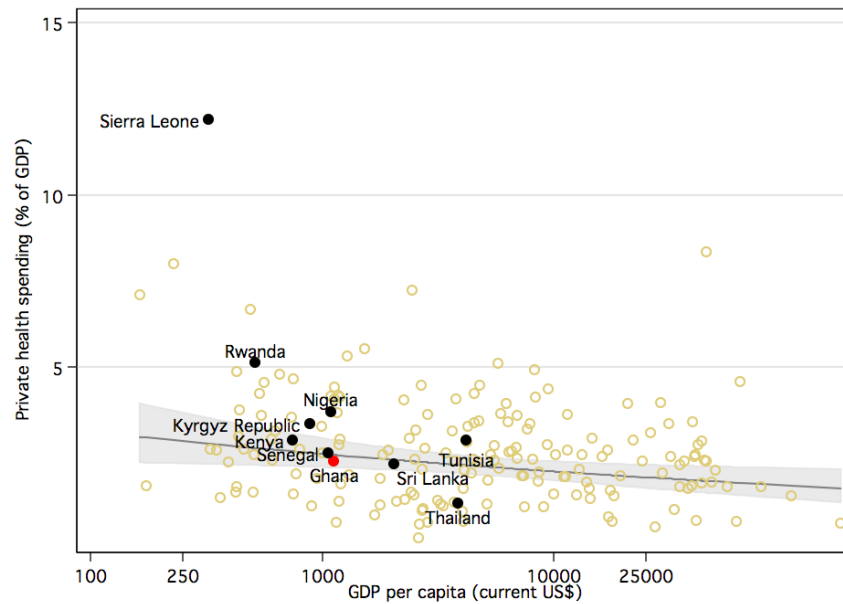
Figures 2.39–2.42 show private spending as shares of total health spending and GDP and in per capita exchange rate-based and international dollar terms for 2009 relative to other comparable income countries. Private spending, however measured, is quite close to the global averages for comparable income countries.

Figure 2.39: Private health spending as a share of total health spending versus income per capita, 2009



Sources: World Development Indicators & WHO, 2011
 Note: x-axis log scale

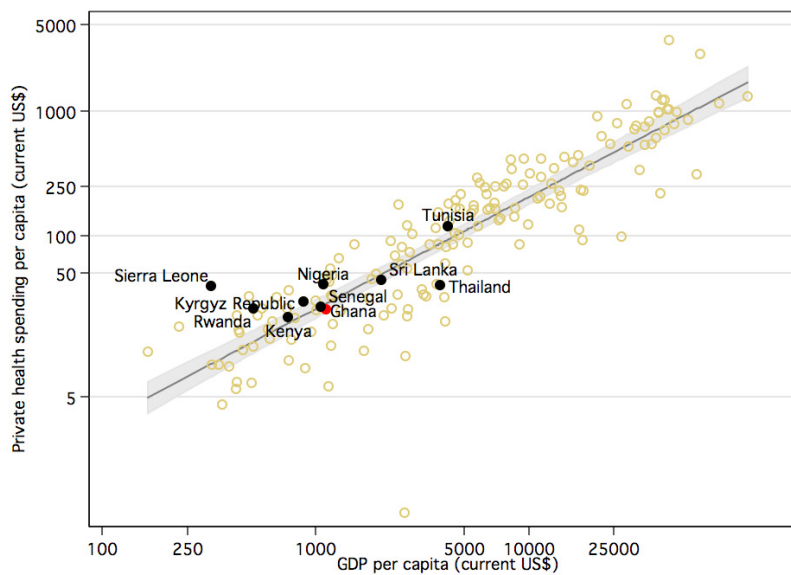
Figure 2.40: Private health spending as a share of GDP versus income per capita, 2009



Sources: World Development Indicators & WHO, 2011

Note: x-axis log scale

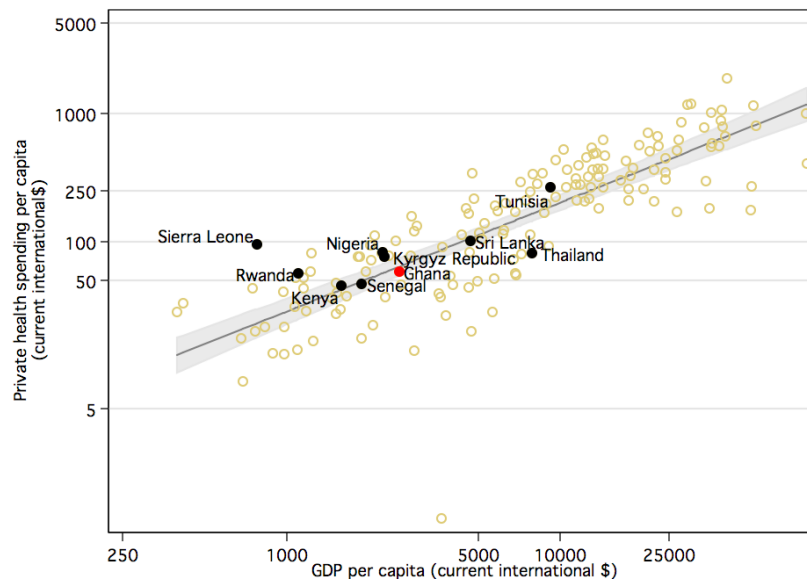
Figure 2.41: Private health expenditure per capita versus income per capita in current US\$, 2009



Sources: World Development Indicators & WHO, 2011

Note: Both axes log scale

Figure 2.42: Private health expenditure per capita versus income per capita in current international \$, 2009



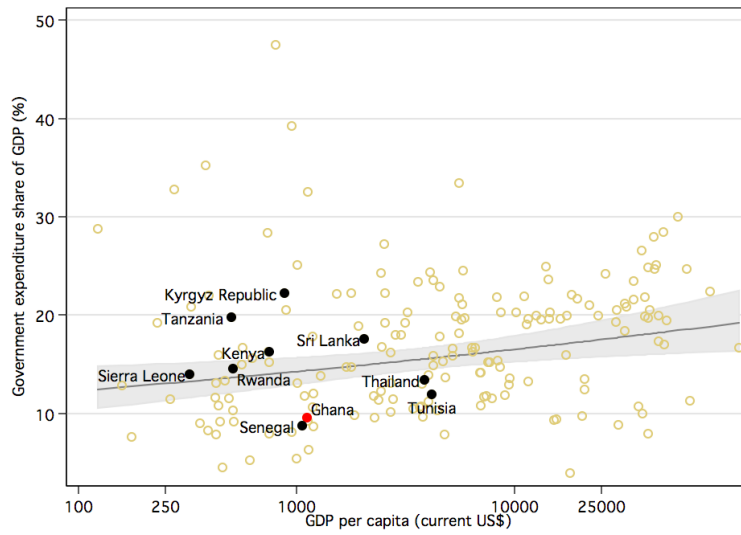
Sources: World Development Indicators & WHO, 2011

Note: Both axes log scale

Overall Government Spending and Revenue Effort

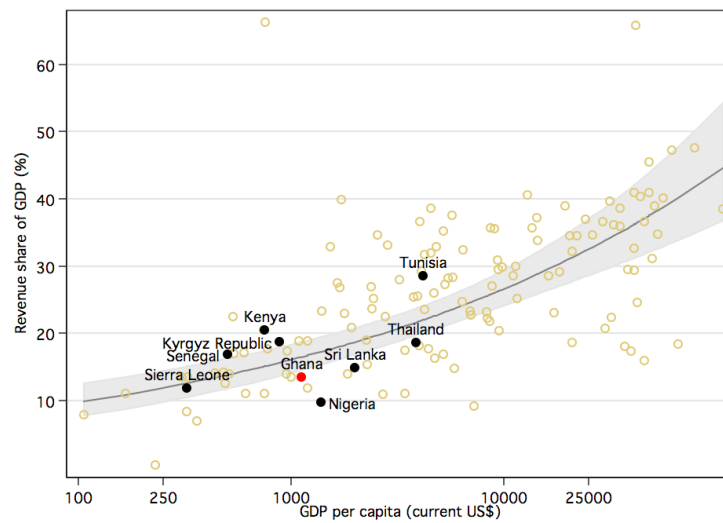
While the international benchmarking of OOP is contained below in the equity, financial protection and benefit incidence analysis, to complete the global comparative assessment of health spending, it is also important to understand Ghana's overall expenditure and revenue situation in a global context. Figures 2.43-2.45 below show how Ghana compares globally to other comparable income countries on overall government spending and revenues as well as how its total government and health spending compare to countries which raise similar levels of revenues. Figure 2.46 provides an indication of the importance of external assistance as a health funding source in Ghana relative to other global comparators. The analysis paints a picture of a country, in which despite its serious commitment to poverty reduction and NHIS, both government spending and revenues are well below global averages. Given Ghana's very low revenue effort, it spends less overall and about average on health when compared to other comparable revenue effort countries, many of which have much lower incomes than Ghana. Moreover, for its income level, Ghana which has in the past benefited from significant donor interest, based on its revised GDP still receives average levels of donor support relative to its income comparators, a situation which may not continue in the future given Ghana's newly achieved LMIC status.

Figure 2.43: Government expenditures as a share of GDP versus GDP per capita, 2009



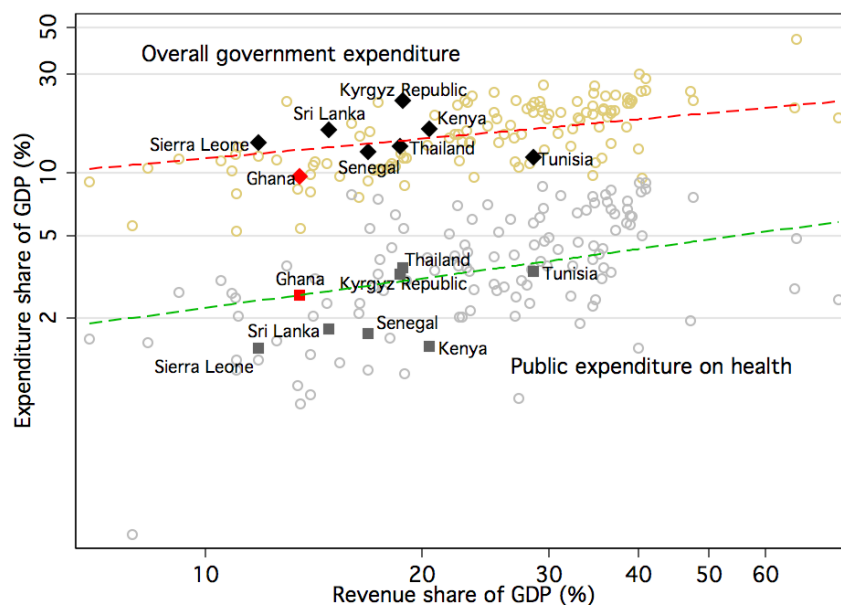
Sources: World Development Indicators & WHO, 2011
 Note: x-axis log scale; data are for latest available year 2000-2009

Figure 2.44: Government revenues as a share of GDP versus GDP per capita, 2009



Sources: World Development Indicators & WHO, 2011
 Note: x-axis log scale; data are for latest available year 2000-2009

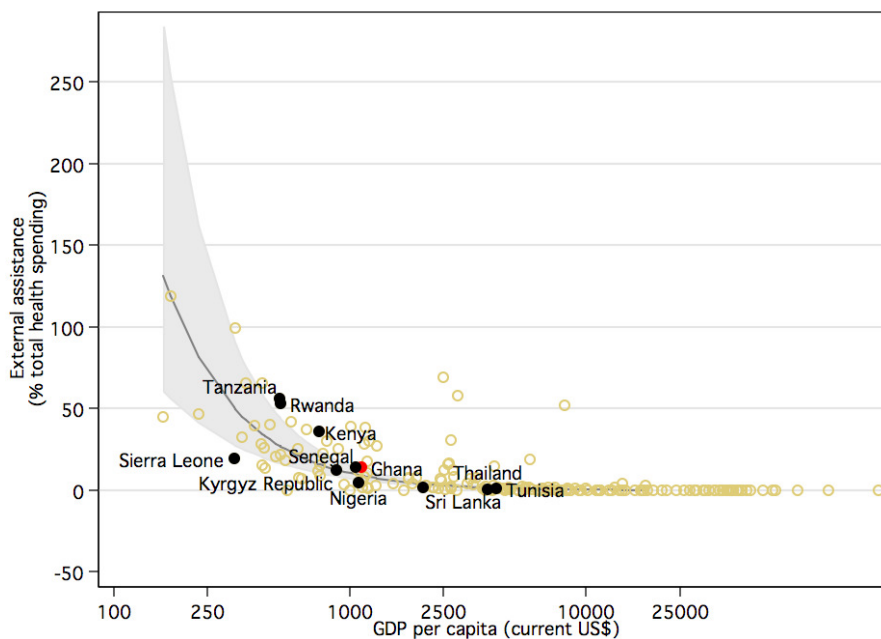
Figure 2.45: Government total and health spending as shares of GDP versus revenue to GDP ratio, 2009



Sources: World Development Indicators & WHO, 2011

Note: Both axes log scale; data are for latest available year 2000-2009

Figure 2.46: External assistance as a share of total health spending versus income per capita, 2009



Sources: World Development Indicators & WHO, 2011

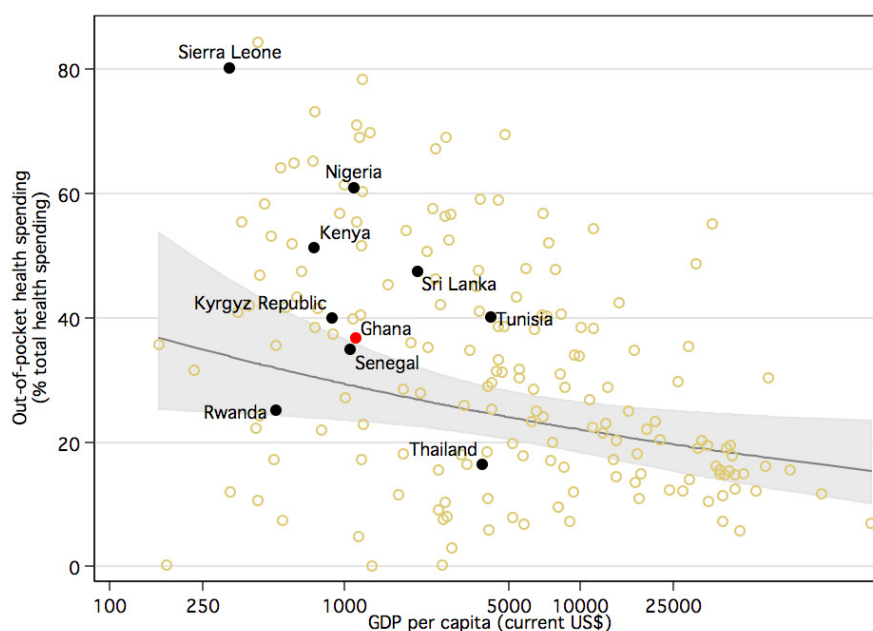
Note: x-axis log scale

Equity and Financial Protection

As discussed above, out-of-pocket spending is a gross measure of financial protection. In its most recent World Health Report (WHR 2010), WHO argues that when countries reduce OOP shares to below 15-20 percent of total health spending, their citizens benefit from significant financial protection. Ghana's 37 percent share, while not that unusual for a country which has just transitioned from LIC to LMIC status, is double this amount.

Figures 2.47 - 2.50 provide global macro level comparisons of out-of-pocket spending measured as: shares of total health spending and GDP and in per capita exchange rate-based and international dollars for 2009. OOP accounts for 79 percent of private health spending and 37 percent of total health spending. Based on all these measures, OOP spending in Ghana is at or slightly above its global comparator averages. Thus, relative to global comparators, financial protection at an aggregate level is about average or slightly less, but based on the WHO 15-20 percent OOP criterion, at an aggregate level, financial protection in Ghana appears to be problematic.

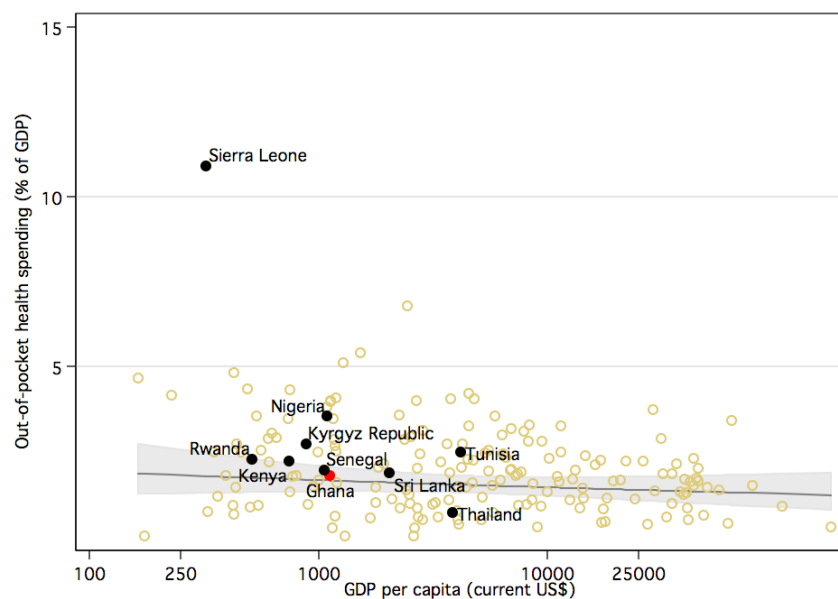
Figure 2.47: Out-of-pocket spending as a share of total health expenditure versus income per capita, 2009



Sources: World Development Indicators & WHO, 2011

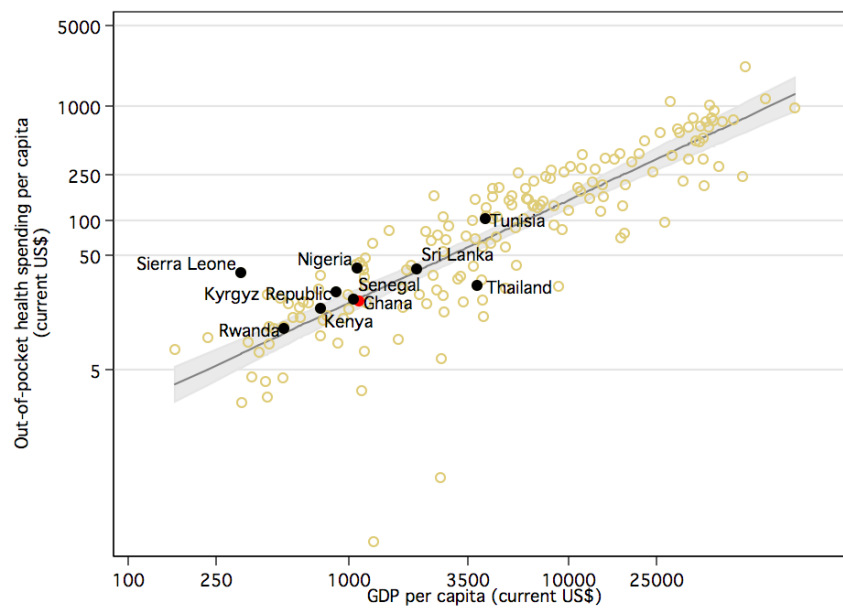
Note: x-axis log scale

Figure 2.48: Out-of-pocket health expenditure as a share of GDP versus income per capita, 2009



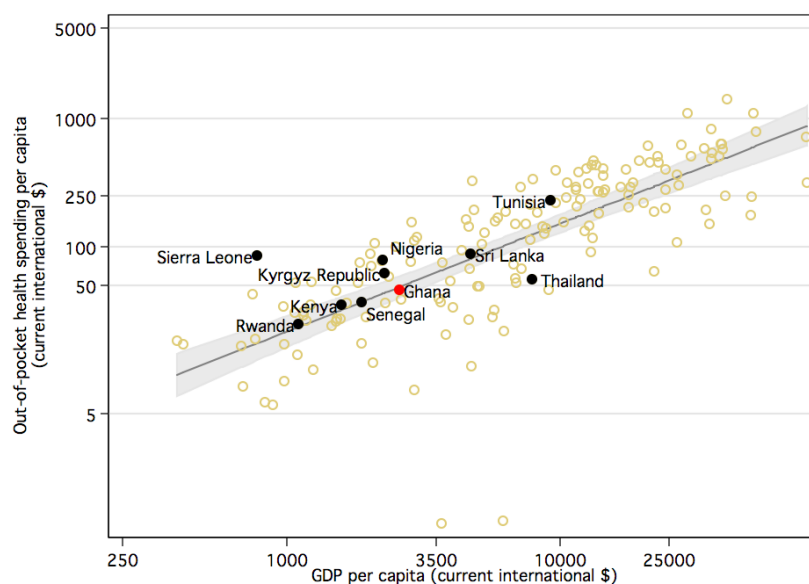
Sources: World Development Indicators & WHO, 2011
Note: x-axis log scale

Figure 2.49: Out-of-pocket health expenditure per capita versus income per capita current US\$, 2009



Sources: World Development Indicators & WHO, 2011
Note: Both axes log scale

Figure 2.50: Out-of-pocket health expenditure per capita versus income per capita current international \$, 2009



Sources: World Development Indicators & WHO, 2011

Note: Both axes log scale

As discussed above, while aggregate OOP shares may be indicative of financial protection, a fuller understanding of financial protection and equity can only be obtained by analyzing household level information on the impacts of OOP as a share of household consumption/spending/income/assets and to see how this varies by measure quintiles.

Chapter 3 - Strengths and Weaknesses of Ghana's Health System

Introduction

Health reforms should focus on those elements of a country's health system which determine its performance in terms of health outcomes, financial protection, and consumer responsiveness within its demographic, epidemiological, economic, cultural, political and geographic contexts. The reform agenda should build on those elements leading to good performance and modify those leading to poor performance. As previously discussed, in this study Ghana's health financing system performance is assessed in terms of how well it performs its basic health financing functions of revenue collection, risk pooling, and purchasing in terms of achieving health outcomes, financial protection, and consumer responsiveness in an equitable, efficient and sustainable manner given its underlying fiscal, demographic, etc., situations. As health financing interacts with all the other aspects of health systems as well as other non-health sector institutions/factors that affect health, a strengths and weaknesses assessment must deal with all aspects of the health system, not only its financing aspects. This chapter, based on the performance assessment in the previous chapter and a review of the extensive Ghana health policy literature including the Country Status Report and the individual CSR background papers, assesses the strengths and weaknesses of Ghana's health system.

Annex 3.1 contains the detailed assessment of the strengths and weaknesses of Ghana's health system, the results of which are summarized below. The strengths and weaknesses are classified in terms of three broad categories of health systems features that are likely to affect systems performance: Governance, Management and Organization; Delivery System, Pharmaceuticals, and Public Health; and, Health Financing. There is no single 'right' taxonomy, and as with all health systems classifications, most of the elements interact both within and across the three broad categories. The analysis below is based on an extensive review of the rich existing literature on Ghana including: the Health Sector Medium Term Development Plan (HSMTDP), other major donor reports (e.g., JANS, Smith and Fairbank -- USAID Family Planning Report), the World Bank's 2011 PER, the Ghana Country Status Report and the numerous background papers for that Report, new analyses undertaken in this report, and the extensive Ghana health financing literature including NHIS annual reports, Nyonator's Ghana Case Study for WBIs 2010 Health Reform Flagship Course, the Ghana background paper for WHO's 2010 World Health Report (WHR) on universal coverage, OXFAM's recent critique, a recent actuarial technical assistance report (Hendriks), the 2009 World Bank and MOH Reports on the NHIS, the recent Rockefeller Report, etc.⁴⁸

Governance, Management, and Organization

As discussed in Chapter 1, Ghana has a well-developed, highly decentralized, and evolving health system. The Government is committed to health and has developed an integrated 3 level health system (national, regional, and district – incorporating a community level health delivery system). Its governance, management, and organizational reflects this structure. The system has significant strengths:

- The GoG has in place the administrative and legal requirements for its decentralized governance structure.
- The Public Financial Management (PFM) system is adequate, clear, and meets most international requirements.

⁴⁸ See World Bank (2012) *Ghana Country Status Report*; Apoya, P. and Marriott A. (2011); Durairaj V., D'Almeida, S. & Kirigia, J. (2010); Hendriks, R. (2010); World Bank and Ghana Ministry of Health (2009); Nyonator F. (2010), WBI Ghana Case Study; and, Seddoh, A. et al. (2011).

- Successive Common Management Arrangements (CMAs) provide an effective framework for relating to partners.
- The NHIS legislation (Act 650) strategically sets out an elaborate governance and administrative framework for the provision of health insurance.
- There are high levels of consumer satisfaction.

On the other hand the system still faces some major challenges which hinder effective management and operation:

- The decentralized health sector faces a number of serious challenges, including potential inconsistencies between the GOGs overall decentralization model of devolution verses GHSs model of deconcentration.
- Local authorities have little control over budget/expenditure because most of their resources are actually executed centrally or earmarked from the center to specific programs or initiatives.
- Other issues include: health workforce ratios, health infrastructure deficits, equipment and transport deficits, HMIS deficiencies, drugs procurement and the poor performance of the Central Medical Stores vis a vis financing, quality assurance and logistics management.
- Poor coordination among the various regulatory agencies results in high drug prices and sub-standard drugs.

While the Government is well aware of these challenges and is attempting to deal with them through its various planning processes, they represent serious challenges to the equitable and efficient functioning of the health financing system overall as well as NHISs coverage, payment, quality assurance, and provider certification operations.

Delivery System, Pharmaceuticals, and Public Health

Improving health outcomes, financial protection, and consumer responsiveness in an equitable, efficient, and sustainable manner requires a well-functioning delivery system of human and physical infrastructure; reasonably priced, available, and effective pharmaceuticals (44 percent of all health spending); and well-functioning public health programs targeted on the major disease burdens (e.g., malaria, NCDs) and well-coordinated with NHISs BBP. Ghana has come a long way in terms of developing a modern health care delivery system, improved availability of effective drugs, and operating effective public health programs. The strengths of these systems are:

- There have been large increases in HRH numbers and production of nurses, and the production of doctors is higher than many countries in the region.
- Exits from the labor market are largely due to retirement, not outmigration since the 2006 salary increase.
- Informal payments are *reportedly* uncommon.
- MOH/GHS has developed a comprehensive approach to set priorities for investments, considering recurrent costs, human resource constraints, maintenance implications etc.
- OPD utilization has increased significantly.
- Overall hospital use trends (for most categories) are positive with occupancy rates increasing from 45% to 60% and average lengths of stay decreasing from 4.5 to 3.8 days.

- A vibrant private sector is a major care supplier of all forms of non-hospital care and a significant supplier of hospital care.
- Ghana has a reasonable EDL and good availability of drugs.
- In terms of basic public health full immunization coverage has increased, HIV/AIDS prevalence is low, and Ghana is likely to meet the child nutrition MDG target.

Nevertheless Ghana, like all countries also faces serious challenges in the equity, efficiency, and overall performance of its service delivery system, pharmaceutical system, and public health programs:

- Current health care provider densities are far below WHO recommended levels.
- There is an unequal urban-rural distribution of staff (especially high level cadres), inadequate total numbers, and a weak distribution of health workers to regions with high poverty levels.
- There are few incentives to ensure performance of health sector workers.
- Hospital occupancy rates are 60 percent, and there is considerable inter-regional variation in occupancy, beds, average lengths of stay, and turnover.
- Health infrastructure expansion is limited by:
 - inadequate financial resources
 - delays in the release of budgetary allocations, resulting in cost overruns
 - unplanned initiation of projects outside the capital investment plan
 - weak planned preventive maintenance
 - issues in the acquisition, distribution, installation, use of equipment.
- There is a need to strengthen district health and sub-district health systems with a focus on primary care.
- In terms of public health the MMR focus has been problematic and Ghana is unlikely to meet the MMR MDG goal; anemia is a major problem among women and children; the contraceptive prevalence rate is low and stagnant with high levels of unmet need; and TB prevalence is high, stagnant, and there are large unmet needs

Many of the challenges highlighted here are common in lower income countries and exacerbated in a large geographically diverse country like Ghana. Nevertheless for Ghana to achieve its health reform goals, it must deal with the inefficiencies and inequities in its service delivery system, whether geographic, staffing, productivity, management, and/or incentive-based, and do a much better job vis a vis primary care. Given Ghana's relatively poor health outcomes, better performance of its public health programs is essential, and these programs need to be realigned to deal with both the significant communicable disease burden and the overarching NCD and injuries burden. This will require better coordination of these programs with the NHISs BBP. Similarly pharmaceuticals are both an important determinant of health outcomes and impoverishment as well as a major cost-driver in the system. Assuring equity, efficiency and effectiveness in the availability and use of pharmaceuticals is critical on both health outcome and cost grounds.

Health Financing

Health financing interacts with all aspects of health systems. In implementing its health financing functions and assuring achievement of basic health systems goals and objectives, a well-designed and functioning health financing system is critical. Ghana's health financing system has some notable strengths:

- Ghana is one of a very few emerging market countries to take serious steps toward demand-side financing for health, pass legislation for universal health insurance coverage, begin implementation by covering vulnerable groups while significantly expanding enrolment, and earmarking substantial resources to support the system.
- The revenue base for Ghana's overall health financing system is largely progressive, and NHIS relies on a diversified set of largely progressive funding sources, resulting in significant and stable sources of revenues.
- Ghana's approach is pragmatically built on its existing system of community-based health insurance plans transitioned into district mutual health insurance schemes (DHMIS) and is evolving toward a uniform national system.
- According to NHIS, membership has steadily increased to 8.16 million active members in 2010, some 34 percent of the population, while outpatient visits have increased 23-fold, inpatient service use 29-fold, and expenditures by 40-fold.

Ghana is in its early stages of implementing the NHIS, and given the 10-15 years it has taken most other emerging market countries to fully scale up, NHIS authorities face many critical challenges and mid-course corrections both structural and operational:

- With current expenditure and expansion plans, the NHIS is not financially viable and is projected to be insolvent by as early as 2013.
- Premiums, taxes, and reinsurance payments for NHIS and to DMHISs are not actuarially determined, and premiums for informal sector workers are low relative to their costs.
- The original health insurance law does not require a necessary reserve fund.
- The BBP is heavily biased toward curative care, coordination with MOH vertical programs is poor, and coverage of 95 per cent of the BOD with no cost sharing may not be affordable.
- Lack of an effective gatekeeper system, an ineffective referral system, and misaligned provider payment incentives preclude NHIS from being an effective 'active' purchaser.
- Large numbers (e.g., perhaps on the order of 30 per cent) of the 65 per cent premium exempt members could afford to contribute.
- The stringent definition of indigent excludes some poor and near poor.
- Lack of a modern HMIS results in poor claims management and quality assurance, high administrative costs, and incomplete information on enrollees and providers.

While the focus of this study is on health financing with an emphasis on NHIS, Ghanaian policy-makers also need to focus holistically on the financing of the entire system including MOH and GHS as well as private financing. NHIS is a critical focal point because as coverage expands, it will become the largest payer in the country for health care

services. This raises important policy decisions concerning the evolution of the public delivery system into autonomous entities, whether public sector health workers will continue to be salaried government employees, the government's future role in the direct provision of care, and the roles and responsibilities of the national vs local governments as regulators as opposed to providers – steering the ship, rather than being the ship.

As discussed in the Government's various planning documents and the CSR, Ghana is grappling with these many interactive management, delivery system, and financing issues. Chapter 4 which follows provides an overview of the future fiscal context that overlays these policy choices, while Chapter 5 discusses specific health financing reform options based on this strengths and weaknesses assessment.

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Annex 3.1- Strengths and Weaknesses of Ghana's Health System

This Annex assesses the strengths and weaknesses of Ghana's health system in terms of three broad categories of health systems features: Governance, Management and Organization; Delivery System, Pharmaceuticals and Public Health; and, Health Financing. As discussed previously, there is no 'right' taxonomy to classify health systems and the numerous health systems elements can be classified under more than one heading and most elements interact across the categories. We attempt here to describe the key elements, their interactions, and their ultimate impacts on the performance of the health system. Recognizing that health systems are extremely complex dynamic organisms, the attempt here is to get a snapshot of the key performance parameters, irrespective of how one categorizes them. While this assessment is based on the latest available Government and development partner documents, recent studies, and data, it must be kept in mind that key data on many aspects of performance are often lacking (e.g., unit cost information on efficiency, recent household data on consumption and spending, etc.), that studies cited here are often based on older information, and that there are a number of very recent changes in NHIS such as the free maternal care and waiver of waiting periods for certain groups that are not being reflected. Also as with any assessment of strengths and weaknesses, one can view the glass as half full as well as half empty, which results in certain strengths also having elements of weaknesses (e.g., significant progress in financial management reforms but still falling short of full compliance with agreed upon standards).

Governance, Management, and Organization

Ghana's health system functions in the context of the country's overall governance, administrative, financial management and procurement structures. Ghana has a long history of decentralization dating far back in its colonial area. For the past three decades the Government has been putting in the legal and administrative bases for conducting its operations with this decentralized system. The health system functions within this structure.

Strengths

- The GoG has spent 30 years putting in place the administrative and legal requirements for its decentralized governance structure.
- The Public Financial Management (PFM) system is adequate, clear, and meets most international requirements, and the GoG is committed to reforms to further improve its effectiveness.⁴⁹
- The Government is committed to health and has developed an integrated 3 level health system (national, regional, and district – with the district level having a sub district level and incorporating a community health delivery system focused on access, quality and coverage of health information, preventive care, clinical care, and emergency services).
- In addition to legal frameworks, successive Common Management Arrangements (CMAs) (build on SWAPS, Paris Declaration of Aid Effectiveness, etc.) provide a framework for public sector actors to relate with various partners in the health sector to assure:
 - the principles of one country plan, budget and reporting mechanisms
 - support for country-led approaches to health development, financing, and systems strengthening
 - a common M&E framework for all stakeholders.
- The NHIS legislation (Act 650) strategically sets out an elaborate governance and administrative set-up for the NHIS and strategically establishes schemes which are protected within the existing MOH and local

⁴⁹ World Bank (2011), *Republic of Ghana: Joint Review of Public Expenditure and Financial Management*.

government structures, empowering districts - within central government guidelines – to govern the delivery of health services by contracting with providers.⁵⁰

Weaknesses

- Public sector labor (all sectors) captures most of the Government revenue – 57 percent in 2008, leaving little complementary resources for goods, services and investment, with the health sector accounting for 13 percent of public employment in 2008 and salaries for public sector health workers accounting for 55 percent of recurrent MOH spending.⁵¹
- A regular and comprehensive review of public expenditure, from an effectiveness, efficiency and sustainability perspective, is lacking (domestically-financed public investment projects are not based on careful cost benefit analysis and the computation of financial and social economic returns), and there is weak transparency, executive accountability, and oversight of PFM.
- An effectively functioning decentralized health sector faces a number of serious challenges, the major problem being that GoGs overall model of decentralization is devolution (e.g., shift responsibility/authority from central office of MOH to separate public administrative structures such as local governments), while the GHSs basic approach is deconcentration (i.e., shifting power from central office to peripheral offices of the same administration). Other issues include:
 - low levels of control local authorities have over budget and expenditure
 - most of the resources allocated to local facilities and services are actually executed centrally on behalf of local offices or earmarked from the center to specific programs or initiatives.
- To make decentralization work the following actions are needed:
 - systematic assessment of District Health Administrations (DHA) and District Assemblies
 - one legal framework for health system decentralization
 - strengthen linkages between top-down and bottom-up health planning
 - strengthen the stewardship/leadership roles of MOH and Local Governments (LG) as well as LG capacity
 - monitoring and evaluation (M&E) of decentralization process and stewardship role of MOH
 - a financing framework for local governments using the District Financing Fund to consolidate flows and practical guidelines for – “composite budgets”
 - modified procurement processes to standardize processes at different government levels
 - Inter and multi-sectoral action, to achieve health gains.
- Strategies regarding all aspects of the development and implementation of supply side management policies (policy development; regulation and inspection; supply management; rational use of medicines) are lacking:
 - there is no well-articulated quality assurance system in place for the management of procurement and supplies to ensure health commodity security at all levels and facilities
 - the multiplicity of procurement and supply chains (CMS, NHIA, GHS-BMCs, FBOs) should be replaced by a single central procurement agency
 - faith-based health organizations do not receive any external monitoring and supervision at all
 - there is no national institutional framework to regulate labs and imaging centers
 - elements for the implementation of the essential medicines policy are lacking.

⁵⁰ The recent Rockefeller Foundation Report, A. Seddoh et al. (2011) provides a very detailed assessment of the administration and management issues concerning NHIS.

⁵¹ World Bank (2011), *Republic of Ghana: Joint Review of Public Expenditure and Financial Management*.

- Oversight performance by the GoG of the public and private sector delivery systems is weak, and there could be more involvement of the for-profit private sector.
- While significant progress has been made in terms of health services planning, standardizing designs for specific facilities, equipment maintenance, etc., problems persist:
 - the complexity of capital planning, in an environment where priority setting is often heavily influenced by non-technical arguments issues such as political intervention, a wide range of funding sources, often with conditionalities, etc.
 - managerial (e.g. no systematic record keeping on the overall level of capital investments);
 - incomplete identification of new projects due to the many different avenues for approval and funding
 - the ‘split’ between MOH and GHS that leads to a lack of clarity on the division of labour with regard to several planning and management functions of the two institutions
 - coordination of capital planning with other stakeholders in the health sector is still sub-optimal (e.g., in certain districts, public district hospitals are being projected, while CHAG is already operating functional district hospitals).
- A national ICT/health strategy has not been developed, and HMIS is weak at all levels.⁵²
- There is a lack of managerial autonomy and capacity at the facility level and weak standardization of human resource management policies.
- While targeting has improved recently, particularly in programs like LEAP, there is still substantial room for improvement in many other programs through the use of a common targeting mechanism (i.e., for LEAP, NHIS, and School Uniforms programs).
- There are many NHIA organizational and managerial difficulties stemming from the original institutional framework of the NHIS legislation⁵³:
 - the legal and institutional framework for running independent, autonomous and decentralized DMHIS have yielded a system without appropriate layers of administrative and financial oversight, clear lines of supervision, and due process
 - while DMHIS depend on the NHIA for most of their funding, including bail outs, they assert their legal and operational independence when it comes to issues of accountability to the Authority for funding received and general oversight. This results in
 - some district mutual health insurance schemes encountering serious governance, institutional, operational, administrative and financial problems.
 - in some areas, DHMIS are unable to meet their fundamental object of providing access to healthcare services for their clients.

Ghana, like many other countries with highly decentralized governance and administrative structures (e.g., Philippines, Indonesia), faces many difficult legal, fiscal, and administrative issues in terms of assuring effective functioning of a very complex sector like health in this highly decentralized environment. Indeed there are contradictions in the basic models of decentralization between the government’s basic devolution approach and GHSs deconcentration *modus operandi*. On the other hand, NHIS is in the process of national standardization and recentralizing its administrative and operational functions. While these varied approaches may make sense in their individual contexts (e.g., economies of scale and standardization in NHISs enrolment, revenue collection, claims processing, and provider payment), assuring that the legal, regulatory, administrative, and fiscal structures support effective implementation of these various approaches is a major challenge. Without effective information for

⁵² World Bank (2007).

⁵³ Nyongator F. (2010) WBI Ghana Case Study and Seddoh, A. et. al. (2011).

decision-making, operational frameworks (including eliminating corruption) and appropriate incentives, health financing reform efforts are doomed to failure.

Delivery System, Pharmaceuticals, and Public Health

WHO's framework for characterizing health systems contains six principal elements: service delivery; health workforce; information; medical products; vaccines and technologies; health financing; and, leadership/governance. Leadership/governance was previously discussed, and health financing is discussed below. Here the focus is on these other health systems elements as well as their critical sub elements (e.g., physical infrastructure, public health, medicines).

Strengths

Overall Performance

- Ghana has a well-developed integrated multi-level health system composed of community-based CHPS, health centers, district, regional and teaching hospitals, private health providers, and non-governmental health-related organizations.
- There are high levels of consumer satisfaction.
- Access to care is increasing with 64 percent of the ill obtaining care in 2005 vs 44 percent in 1999.⁵⁴
- Ghana has a reasonable Essential Drugs List (EDL) and good availability of drugs.
- The GoGs proposed interventions for disease prevention and control are all evidence-based, and based on Ghana's robust past experience with public health programmes.

Human Resources for Health (HRH)

- There have been large increases in HRH numbers and production of nurses.
- The production of doctors is higher than many countries in the region.
- Exits from the labor market are largely due to retirement, not outmigration since the 2006 salary increase has resulted in health worker wages being high relative to domestic wages in other sectors and for health workers in Africa.
- Absenteeism appears to be limited.
- Informal payments are *not reported* to be common.⁵⁵

Infrastructure

- MOH/GHS developed a comprehensive approach to set priorities for investments, considering 'systems' variables, such as recurrent cost implications, human resource constraints, maintenance implications etc.

⁵⁴ Sealy, S. Makinen, M. and Bitran, R. (2010).

⁵⁵ However, there is a good deal of anecdotal evidence that in fact informal payments are quite prevalent. This is an area warranting further study.

- OPD utilization has increased significantly since 2001. Overall hospital use trends (and this is for most categories) are positive with substantially increasing bed occupancy rates -- BORs (from 45 to 60%) and decreasing average lengths of stay -- ALOS (from 4.5 to 3.8).
- A vibrant private sector is a major care supplier of all forms of non-hospital care and a significant supplier of hospital care in several districts, largely in urban areas, producing more than half of all services used in virtually every category.

Public Health

- Full immunization coverage has increased, HIV/AIDS prevalence is low, and Ghana is likely to meet the child nutrition MDG goal.⁵⁶

Weaknesses

Overall Performance

- Holding income and health spending constant Ghana performs worse than average with respect to Under 5 (and Infant) and maternal mortality, and it will fall short of achieving its MDG goals in these areas.
- Over the past several decades Ghana's improvements in health outcomes have been much less impressive than several neighboring countries, despite starting from better levels.
- Ghana has fewer physicians and health workers per capita than other comparable income and health spending countries and a serious shortage of specialists.
- Ghana in 2009 has fewer hospital beds per capita relative to income and health spending comparators, the BOR is only 60 percent, and there are serious geographic disparities indicating far from optimal allocation and use of the hospital bed stock.
- Over the past several decades increases in hospital beds and physicians per capita have been lower than many neighboring countries and, over the past decade hospital bed growth has not kept pace with population growth.
- Ghana's integrated health system faces challenges at every level in terms of health workforce ratios, health infrastructure deficits, equipment and transport deficits, health information data capture, analysis and use, drugs procurement and the disappointing performance of the Central Medical Stores, financing, quality assurance and logistics management.
- Significant changes in the legal framework and regulatory system concerning the roles and responsibilities of the seven health-related regulatory agencies (public, private and Civil Society Organizations) are needed in order to ensure better coordination and regulation of services at all levels including providing MOH regulatory agencies with sufficient resources for ongoing supervision and monitoring of the private sector.
- Although the GoG clearly indicates that health gains are to be achieved through primary health care (PHC) and district health systems, the 'systems approach' is not yet translated into a clear HSS approach, covering all aspects of health systems strengthening, including issues related to fragmentation ('silofication').
- Access to sanitation is lacking (10 percent vs 34 percent in SSA).

⁵⁶ See World Bank, Ghana CSR (2012)

Human Resources for Health

- Major changes in human resource policies and implementation are needed to meet equity challenges posed by the unequal urban-rural distribution of staff (especially high level cadres such as doctors, specialists, and diploma/degree nurses), inadequate total numbers, and a weak distribution of health workers to regions with high poverty levels) and socio economic gradients in the provision of antenatal care requiring:
 - development of appropriate staffing norms and effectively dealing with issues of staff redeployment, commitment, productivity and attitude
 - decentralization of some aspects of HR management
 - engagement of others to address housing and infrastructural needs.
- Current health care provider densities are far below WHO recommended levels.
- There are few incentives to ensure performance of health sector workers..
- There are problems with the medical education system:
 - variable performance of the medical education system, particularly in rural areas and in training rural-inclined cadres
 - weak policies on production of community health nurses and concerns about over production and training expenses
 - need to expand midwifery training.
- Productivity varies by type of facility and level of staffing with high staffing levels associated with lower outputs per worker, and recent increases in health worker numbers and pay have not adequately translated into increased outputs and benefits.
- Leadership and management could be improved by eliminating promotions based on seniority, no sanctions for poor performance and conversely, improving manager empowerment.
- Private sector providers lack access to credit and have poor management skills.
- Health Profession and Provider Associations contribute little to monitoring and assuring quality of care or developing the business and financial skills of their members.
- There is little private sector investment in training and production.

Infrastructure

- The distribution of existing and new health facilities has been sub-optimal resulting in:
 - ‘overdeveloping’ facilities in some locations and underinvesting in others
 - expanding publicly provided health services beyond the limits of available operating funds and professional staffing, resulting in many newly developed facilities being operated with less than standard levels of staffing and equipment.
- Hospital occupancy rates at 60 percent are low, and there is considerable inter-regional variation in occupancy, beds, average length of stay (ALOS), and bed turnover, indicating non-optimal use of the hospital bed stock and the need for much better planning.

- The MOH/Project Monitoring Unit (PMU) is currently under-resourced to deal with the rapid increase in the volume of infrastructure work and completion of legacy projects.
- Health infrastructure expansion is limited by:
 - inadequate financial resources
 - delays in the release of budgetary allocations, resulting in cost overruns
 - unplanned initiation of projects outside the capital investment plan
 - weak planned preventive maintenance
 - issues in the acquisition, distribution, installation, use, and maintenance – most equipment in district hospitals is non-functional, antiquated or inadequate, transportation is a big problem with 50-65 percent of all vehicles over age and needing replacement.
- Financial analysis of capital investments shows that there has been consistent under-performance of reported capital expenditure against budget in recent years.
- Need to strengthen district health and sub-district health systems with a focus on primary care, particularly at the sub-district level where comprehensive primary care services can and should be provided.
- While the concept of equipment management is well established in the health sector, implementation of this concept varies:
 - coverage of equipment support by MOH appears not to reach the specialized facilities after initial inputs
 - location of equipment managers is problematic in some areas and for certain types of facilities
 - specialist outreach technical services operated by the Clinical Engineering Department of GHS and the Biomedical Engineering Unit of MOH are not very effective.
- Incomplete accreditation of private providers by NHIS may limit access to private providers.

Public Health

- Ghana's MMR focus has been problematic and the country is unlikely to meet the MMR MDG goal; anemia is a major problem among women and children; the contraceptive prevalence rate is low and stagnant with high levels of unmet need; and TB prevalence is high, stagnant, and there are large unmet needs.⁵⁷

Other Factors

- High prices for medicines and sub-standard drugs result from poor coordination among the various regulatory agencies.
- Demand side factors appear to be the most problematic at the community level and for population-based health services,
- Clinical care coverage is inadequate and both demand and supply side factors prevail:
 - lack of physical access to PHCs
 - inadequate capacity of existing staff

⁵⁷ See World Bank, CSR (2012)

- maternal and neonatal mortality and nutrition still big problems, requiring better access to an appropriate number of well performing health workers⁵⁸ and better synergies among the key institutions (MOH, GHS, NHIS)⁵⁹
- weak referral systems, low uptake of assisted deliveries
- ITN constrained by supply side constraints, only 49% of districts having LLITNs in relation to need.

Developing, effectively operating, and sustainably financing a health system to achieve basic health systems goals is extremely challenging for all countries, but all the more so for low and LMIC countries which often lack the financing, essential inputs, and the technical expertise to implement ‘good practice’ state of the art policies. Ghana has a well-developed functional health system throughout the country. It faces many of the same generic problems of under-resourcing and maldistribution of resources that most low income and LMICs face. For its income and health spending levels it has fewer inputs than comparators, but more troubling is that its health outcomes are generally worse than other comparable income and health spending countries. It faces additional challenges due to its highly decentralized nature. On the other hand, the system has some significant strengths in terms of its vertical integration; HRH production, limited absenteeism, out-migration, and informal payments; and, consumer (although not workforce) satisfaction and wage levels are high. Utilization has been increasing consonant with increases in human and physical infrastructure, although the level of value for monies spent to achieve this is far from clear. Lack of data for decision-making is problematic at all levels of the system.

As NHIS coverage expands to the remainder of the population, it is essential for the GoG to improve the efficiency and effectiveness of the current system, deal with maldistribution problems, and expand capacity including more effective regulation and better inclusion of the private sector. Such capacity expansions will be costly and require additional fiscal space irrespective of whether they are financed by the government, private sector, and/or through NHIS. Ghana’s relatively poor health outcomes, albeit due to numerous factors, nonetheless would suggest a strong relook at basic public programs and, as discussed below, better coordination of these programs with the NHIS BBP.

Health Financing

As discussed above much has been written about Ghana’s overall health financing system and NHIS. Ghana has transitioned through several basic approaches to health financing from NHS to cash and carry to community-based health insurance to NHIS. While this report has assessed Ghana’s overall health financing performance in terms of total, public and private health spending and financing, the focus has been on NHIS as it is envisioned to be the source of universal coverage for the population and as such would ultimately be the major financing entity in the country. NHIS has been lauded as an innovative and ‘good practice’ approach to financing health insurance in lower income settings (e.g., WHR 2010) and criticized as an inequitable and ineffective failure (e.g., BMJ, OXFAM 2011). Its detailed operational and financial aspects have been assessed on numerous occasions, although the assessments have been encumbered by lack of appropriate micro level claims and cost information. The analysis that follows focuses on NHISs basic structural design, operational processes, and fiscal features; performance of its health financing functions in terms of basic health systems objectives; and, its long-term financial sustainability, particularly in light of the new macroeconomic realities.

⁵⁸See Herbst, C. (2010).

⁵⁹ Moulay Driss Zine Eddine El Idrissi (2007).

Strengths

- Ghana is one of a very few emerging market countries to take serious steps toward demand-side financing for health, pass legislation for universal health insurance coverage, begin implementation by covering vulnerable groups and significantly expanding enrolment, and earmarking substantial resources to support the system.
- Ghana's NHIS relies on a diversified set of funding sources, which has been an important factor in the stability and sustainability of health financing in a number of countries.⁶⁰
- In addition to earmarking 2.5 percentage points of the VAT and 2.5 percentage points of the 18.5 percentage point SSNIT tax contributions to the NHIS (i.e., 77 percent of revenues in 2009), government commitments to health are exemplified by investments in health infrastructure through concessional loans outside the sector allocation, and in the 2010 Ghana national budget allowing additional employment of staff for only education and health.
- Ghana's approach pragmatically built on its existing system of community-based health insurance plans which have evolved into the existing system of DMHIS (some 145 schemes) and is transitioning toward a uniform national system.
- According to NHIS, membership has steadily increased to 8.16 active members in 2010.
- Over this period outpatient visits have increased 23 fold, inpatient service use 29 fold, and expenditures by 40 fold.
- NHIS is largely funded through general government revenues: the National Health Insurance Levy (NHIL) – 2.5 percentage points of the VAT used to finance exempt and subsidized groups and DHMIS deficits, (61 percent of revenues), the SSNIT for public and formal sector workers (15.6 per cent), investment income (17 percent), premiums for informal sector workers (3.8 per cent), sector budget support (2.3 per cent) and other income (0.2 percent) in 2009.
- Difficult to identify and enroll informal sector employees, who account for some 70 - 90 percent of the workforce and 29 percent of NHIS members, are encouraged to enroll through highly subsidized income-related premiums.
- A recent study of the revenue incidence of Ghana's health financing system and NHIS found: "Ghana's health care system is generally progressive. The progressivity of financing is driven largely by the overall progressivity of taxes, which account for close to 50 percent of health care funding. The national health insurance (NHI) levy (part of VAT) is mildly progressive and formal sector NHI payroll deductions are also progressive. However, informal sector NHI contributions were found to be regressive. Out-of-pocket payments, which account for 45 percent of funding, are a regressive form of payment to households".⁶¹
- Recent studies of the benefit incidence suggest that the program does benefit the lower income quintiles but its targeting could be improved.
- A comprehensive basic benefits package (BBP) covers some 95 percent of Ghana's burden of disease with no cost-sharing (although all enrollees except pregnant women and the indigent pay a 4 new Ghana cedi registration fee).
- Vulnerable groups such as indigents, pregnant women, children, pensioners, and the elderly are covered and exempt from premium contributions (some 65 per cent of enrollees).

⁶⁰ Kutzin, J., Jakab, M., and Cashin, C., (2010).

⁶¹ Akazili, J., et al. (2011).

- The NHIS is evolving as an effective new health purchaser. The maturing strategic purchasing function, while not adequately exploited now, has the potential to be a force for change and modernization in service delivery.
- Consumer satisfaction levels are high: according to the 2008 NDPC Citizens Assessment Survey 92 percent of insured members are either 'very satisfied' or 'satisfied' with the scheme.
- Access has improved as studies suggest that NHIS covered women are more likely to receive prenatal care, deliver at a hospital, have their births attended by trained health professionals, experience fewer birth complications, and experience fewer infant deaths.⁶²
- Since 1995 total and public health spending have increased more rapidly than GDP (respective nominal elasticities of 1.03 and 1.13), while private spending has increased less rapidly (0.93). Since 2004 public health spending continues to increase more rapidly than GDP (1.11), while total health spending increased at the same rate (1.0), and private increased even less rapidly (0.87).
- With respect to similar income countries in 2009 total health spending is not excessive with total spending slightly below or at the average for comparable income countries depending on the measure used, while public spending is above average or average depending on the measure used, and private spending is about average.
- In terms of financial protection and equity, membership in the NHIS led to better utilization of the poor of health facilities when they get ill. Since they are accessing formal facilities, their utilization of traditional medicines, self-medication, and foregoing of care is lessened, compared to the uninsured. The same can be said about the utilization of essential maternal health care services for the poorest quintile.
- In terms of financial sustainability, the revenue side of the NHIS appears to be stable at least for the next 3 to 5 years, although the expenditure side faces serious difficulties (see below and Chapter 4).

Weaknesses

- As a previously under-resourced system, since 1995 Ghana's health spending has increased less rapidly than several neighboring comparators and the average for all SSA countries (nominal elasticity of total health spending to GDP of 1.03 vs 1.09 for SSA, and public spending elasticity of 1.13 vs 1.17 for SSA).
- Out-of-pocket spending, a measure of financial protection, at 37 percent of total spending is above the levels of other comparable income countries and well above the 15-20 per cent WHO financial protection threshold.
- In order to achieve the basic objectives of health financing systems to improve health outcomes, financial protection and consumer responsiveness in an equitable, efficient and sustainable manner, the GoG and NHIS need to better address several major strategic challenges:
 - NHIA is not financially viable under its current design and operational policies (e.g., coverage rules, basic benefit package, provider payment and cost control, and revenue generation policies): deficit projected in 2010 and the reserve fund depleted by as early as 2013
 - rapid expansion of enrolments (now some 34 per cent of the population), *ceteris paribus*, will not be affordable or sustainable unless cost growth is brought under control. Furthermore, the NHIS's HMIS systems are not capable of handling their current, much less such increasing, operational requirements
 - premiums, taxes, and reinsurance payments for NHIS and to DMHISs are not actuarially determined and the premiums for informal sector workers (70+ per cent of the labor force and 29

⁶² (Mensah, J. et al., 2009, 2010)

per cent of NHIS members) are low (7.2 to 48 new Ghana cedis depending on socioeconomic status) relative to their costs of care and the revenues they generate (3.8 per cent), and are regressive

- the original health insurance law does not require reserves which are in the medium to long-term necessary for operational health insurance funds increases in service utilisation may not be sustainable under the NHISs current financing and provider payment arrangements: OPD visits per capita increased from 0.4 in 2005 to about 1 in 2009, and inpatient utilization has increased from 22 to 58 per thousand during the same period
- various cost-effective services are excluded, and the benefit package in general is heavily biased toward curative over preventive care (e.g., family planning which is in principle provided by MOH and not part of the NHIS BBP is underfunded as an ‘essential public good’ depriving NHIS of potentially savings of \$US11 million in 2011 and \$17 million by 2017)⁶³
- the extensive BBP covering 95 per cent of the burden of disease with no cost sharing may not be affordable or sustainable
- insufficient cost containment measures including an effective gatekeeper system (as much of the increase in utilization is concentrated in tertiary hospitals) are exacerbated by ineffective referral systems and misaligned incentives across insurers and provider types
- the provider payment systems used by NHIS are improving but have a ways to go before becoming truly effective strategic purchasing tools
- adverse selection and lack of enrolment of informal sector workers as there is no mechanism to enforce Section 31 (3) of the Health Insurance Law, which requires every person resident in Ghana (except for military and police) to belong to a licensed health insurance scheme
- assuming the government can implement effective targeting mechanisms, large numbers of the 65 per cent premium exempt members are not indigent and could afford to contribute but are supported by the NHIL contribution which accounts for 61 per cent of NHIS income, while the 35 per cent paying members account for less than 20 per cent of revenues (i.e., paying members are SSNIT (6.1 per cent of enrollees and 15.6 per cent of revenues) and informal sector (29.4 per cent of enrollees and 3.8 per cent of revenues)
- given the stringent definition of poverty, some poor and near poor are required to pay premiums, resulting in non-enrolment and less equity
- despite the numerous premium exempt categories, neither enrolment nor benefit incidence is pro-poor
- administrative/managerial efficiency is problematic due to lack of a modern HMIS resulting in poor claims management, limited quality assurance, high administrative costs for providers and NHIS, and incomplete information on enrollees. Other specific problems include:
 - the NHIA lacks common standards for certain crucial coding systems such as procedures and pharmaceuticals
 - claims volumes coming to NHIA’s Claims Processing Centers (CPC) will continue to grow rapidly and NHIS’s claims processing and management systems are not capable of handling the current volumes much less such increasing operational requirements
 - the current NHIA system does not provide adequate analytics for management of the scheme or management of the insurance fund
 - there are two competing financial systems (one provided by outsourcer STL and one provided by the Dutch engine) and it is not clear if these two systems are interfaced together
- NHIS reimbursement delays as well as an inadequate service accounting system, making it impossible to track patient use of services over time as well as low tariffs and incomplete accreditation of providers

⁶³ See Smith and Fairbank (2008).

- equity and targeting issues (regressive socio-economic profile of enrolees, coordination between NHIA and MOH).
- Specific problems areas common to many insurance entities have also emerged⁶⁴:
 - difficulty identifying indigents
 - weak portability
 - unreliable eligibility authentication at provider site
 - weak control systems that provide a potential for fraud
 - weak enforcement of gatekeeper system (referral system)
 - high cost of administrative inefficiencies
 - human capacity gaps
 - issues of artificial indebtedness
 - fragmented claims processing centers (145)
 - misapplication of approved tariffs
 - prescribing and dispensing of unapproved medicines
 - inefficient Medical Supply Chain System leading to high cost of medicines on NHIS Medicines List
 - inability to effectively monitor service utilization and cost
 - inability to gather timely data on disease patterns hampering decision making
 - manual processing of claims leading to delayed claims payment
 - potential for fraud by members, schemes and providers.
- While the 2007 PETs found no evidence of fund leakages:
 - there is no readily available comprehensive quantitative information on districts' finance and expenditure in Ghana.
 - there are significant delays in flows of funds (mostly MOFEP to MOH to and by districts, to and by NHIS to districts and providers)
 - confusions in record keeping
 - funds divergence at all levels of administrative offices
 - certain sources of funds are missing (the out of pocket part of IGF, the expected funds that are secured to finance capital investment, national private donors).
- Demand driven, comprehensive district health services are under-sourced, due to:
 - an increasing trend of ring-fencing and earmarking by development partners, GHI resources, as well as some portions of NHIF resources
 - an increasing proportion of government resources are financing statutory commitments (personnel and parts of services and investment) and ring-fenced activities
 - too high costs of medicines
 - an increasing proportion of resources going to curative services.
- Current government efforts do not effectively address strategies to improve the efficiency of using existing resources (e.g. on supply management (e.g., currently medicines prices – in both public and private markets - are on average 2 – 3 times higher than the median of the international reference).

Ghana's health financing system is complex with multiple funding sources, multiple levels of government and non-government stakeholders, and both public and private for- and non-profit providers. Supply sides subsidies to public facilities complicate provider payment processes, which are largely not results-based, and preclude effectively establishing a level playing field. Important data for decision-making (DDM) are lacking, partially as a result of insufficient HMIS systems. The recent assertion by OXFAM of NHIS coverage being only 18 percent exemplifies the problems of needing better underlying information.

⁶⁴ See Nyonator, F. (2010), WBI Ghana Case Study and Seddoh, A. et al., (2011).

However, according to NHIS coverage has expanded rapidly to some 8.16 million with further expansions planned. Vulnerable groups are covered and the benefits are extensive. NHIS is undertaking extensive reforms in terms of its administrative structures and moving toward a much more efficient and holistic operational structure. It is seriously looking at revenue enhancements, some necessary and sensible, others politically motivated. It is working to enhance its claims processing capabilities and improve its information base, quality, pharmaceutical management, and fraud detection.

Nevertheless, although the revenue base of the NHIS has been stable and gradually expanding, the expenditure patterns are unsustainable. The NHIS as currently constituted in terms of its coverage rules, benefits structure, cost-sharing, exemptions policies, provider payment mechanisms, contribution requirements and expansion plans will require large increases in government contributions to be sustained and expanded, which may be difficult to justify given Ghana's macroeconomic and fiscal context (see Chapter 4). Furthermore, an important adage of health insurance expansion plans is that one should not expand on an inefficient and inequitable service delivery system base. Moreover, for the NHIS to fulfill its promise of financial protection, significant supply side expansions, particularly in underserved areas, will be needed as will better targeting to assure enrolment is more pro-poor. The MOH, GHS, and NHIS also need to effectively deal with the plethora of delivery system and public health issues highlighted above and their deleterious effects on health outcomes. Moreover, expansions will be costly and much of those costs will ultimately be picked up by the Ghanaian taxpayer either through direct public investments and/or as provider reimbursements through the NHIS. In the following section, an analysis of Ghana's potential for expanding government funding for the health system is assessed in the context of current macroeconomic and fiscal realities. In the final chapter, structural options to deal with reform of the NHIS will be discussed in the context of the macroeconomic and fiscal context expected over the next 3 to 5 years and these current strengths and weaknesses of the health system.

Chapter 4 - Assessing the Prospects for Fiscal Space for Health in Ghana

Introduction

In recent years, Ghana has experienced relatively stable macroeconomic growth, creating the opportunity for more resources to be invested in social sectors. The Government used the opportunity of strong economic growth to undertake rapid fiscal expansion between 2004 and 2008. Over that period public expenditure grew from 20 to 24 percent of GDP (World Bank, 2011). As part of the fiscal expansion, the Government of Ghana was able to increase expenditures for the health sector, particularly through the new resources dedicated to the National Health Insurance Scheme (NHIS). Although the NHIS has made notable progress covering the population and increasing access to services, coverage gaps remain large, and Ghana still lags behind in some health outcomes such as maternal mortality. In order to increase coverage, and ultimately achieve universal coverage and continue to improve health outcomes and financial protection, additional public resources together with significant improvements in the efficiency of the system are likely to be necessary over the medium to long-term.

In spite of strong economic performance in recent years, finding additional fiscal resources for the health sector without jeopardizing long-term financial solvency, or increasing “fiscal space,” may be a challenge in Ghana. The purpose of this assessment is to examine the requirements for additional fiscal space for health in Ghana over the next 3 to 5 years against the potential for generating those funds in a sustainable way from the possible sources available, including using existing resources more efficiently. The objective is to place the current discussion about increasing the coverage of the NHIS and reforming some aspects of the system, such as the premium structure and provider payment mechanisms, in a realistic macroeconomic and fiscal context.

What is Fiscal Space for Health?

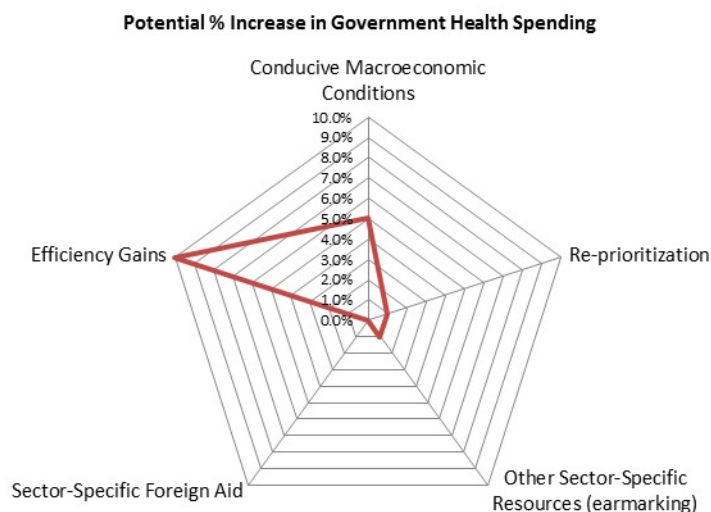
Fiscal space can be defined as “the availability of budgetary room that allows a government to provide resources for a given desired purpose without any prejudice to the sustainability of a government’s financial position” (Heller, 2006). An assessment of fiscal space typically examines whether and how a government could feasibly increase its expenditure in the short-to-medium term, and do so in a way that is consistent with a country’s macroeconomic fundamentals (Tandon & Cashin, 2010). Fiscal space specifically for health can potentially be generated from a variety of sources which can broadly be grouped into the following five categories (Heller, 2006):

- (i) **Conducive macroeconomic conditions** such as economic growth and increases in overall government revenue that, in turn, might lead to increases in government spending for health;
- (ii) A **re-prioritization** of health within the government budget;
- (iii) An increase in **health sector-specific resources**, e.g., through earmarked revenues;
- (iv) **Health sector-specific grants, foreign aid or loans**; and
- (v) An increase in the **efficiency** of existing government health (and/or other) outlays.

Borrowing is an additional possible source of fiscal space. The potential for debt-financed increases in health spending can be addressed through the general assessment of macroeconomic potential and through health sector-specific grants and foreign aid. The first three above options usually lie outside of the domain of the health sector and are linked to general macroeconomic policies and conditions, as well as to political economy and cross-sectoral trade-offs. Nevertheless, it is important to analyze what the implications are for the health sector of changes in the general macroeconomic and political environment within which it operates.

Fiscal space for health can be visualized using a spider plot (Figure 4.1). The five different axes represent each possible source of increasing fiscal space for health, and the “spokes” represent hypothetical examples of the predicted increases along each axis in terms of percentage increases in real government health spending over any base year (Tandon & Cashin, 2010).

Figure 4.1: Fiscal space dimensions



Is There a Need for Additional Fiscal Space for Health in Ghana?

The potential need for additional fiscal space for health in Ghana is driven by the commitment on the part of the Government to strengthen the national health insurance system and substantially expand its coverage to include more individuals from poor and vulnerable groups as well as the remaining uninsured population. Ghana’s National Health Insurance Scheme (NHIS) has made significant achievements since it was launched in 2003. Currently the National Health Insurance Authority (NHIA) estimates that about 34 percent of the population is covered by the NHIS. Nonetheless, as discussed above the importance of the NHIS to its subscribers is reflected in rapidly increasing service utilization rates, better access to essential services and other forms of care (World Bank, 2011) (Mensah, Oppong, Bobi-Barimah, Frempong, & Sabi, 2010).

The exponential growth in utilization and total claims, however, also pose challenges for cost containment and sustainability of the NHIS. The average cost of total claims per member per year more than doubled between 2007 and 2009 (National Health Insurance Authority, 2010). Furthermore, it may be more costly to expand coverage to more poor and vulnerable households. The current subsidy level for exempt groups and the premiums for self-employed and informal sector members are not actuarially determined. Since the uncovered population may not be able to afford an actuarially fair premium, the government subsidy contribution may need to increase in order for the NHIS to expand coverage, which will require additional fiscal contributions.

On the service delivery side, significant investment may be needed to upgrade and expand the supply network and make services available in currently under-served areas to meet the commitments in the NHIS benefit package. The Ministry of Health’s costing of its Medium-Term Development Plan estimates that between Gh¢ 1.8 and 3.4 million in investment funds are needed to upgrade the service delivery system, expand the network of CHPS compounds to extend the reach of primary care, and provide pre-service training for an adequate cadre of health professionals.

The following analysis provides an assessment of possible sources of additional fiscal space to support the strengthening and expansion of the NHIS, including efficiency gains that may be necessary to maintain coverage and service quality within a more constrained resource envelop.

Potential Sources of Additional Fiscal Space

This section provides a systematic assessment of the potential for increasing fiscal space for health in Ghana from each of the five main sources: (i) conducive macroeconomic conditions; (ii) re-prioritization of health; (iii) health-sector specific sources; (iv) foreign aid; (v) and efficiency. The methodology relies on analysis of the most recent macroeconomic and fiscal data available for Ghana from multiple sources, but relying mainly on the International Monetary Fund, official government statistics, and the recent World Bank Public Expenditure Review. The analysis was supplemented by a two-week field visit to Ghana to interview key policymakers and stakeholders, and by an in-depth review of current government macroeconomic, fiscal, and health sector-specific policies and strategies and current assessments of their implementation.

Conducive Macroeconomic Conditions

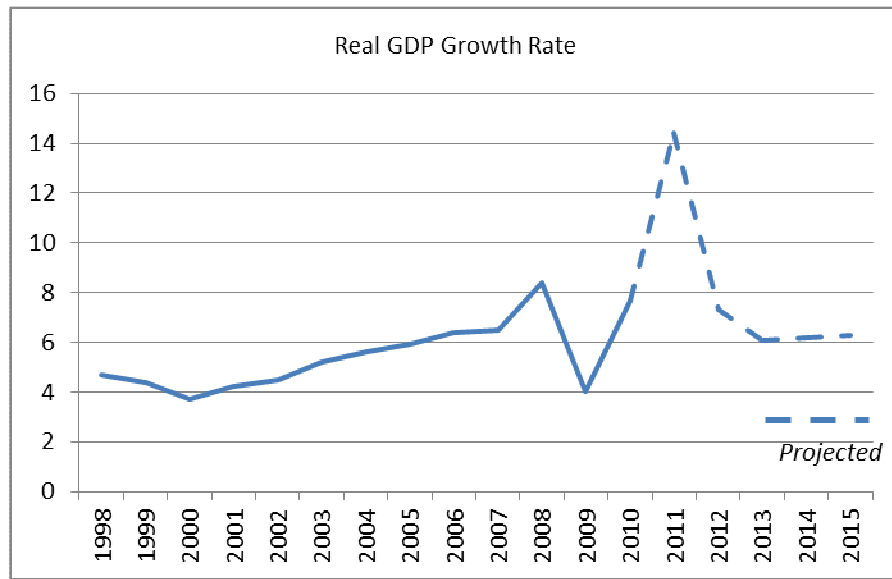
Conducive macroeconomic conditions such as sustained economic growth, improvements in revenue generation, and low levels of fiscal deficits and debt are important sources of new fiscal space for any sector, including health. High levels of economic growth, for instance, can lead to increases in fiscal space for health even if the government health spending share of GDP remains unchanged in a country (Tandon & Cashin, 2010). If a country has low fiscal deficits and in general keeps debt under control, deficit financing is another way to generate new fiscal resources in the short-run. However, deficit financing is not sustainable in the long-run.

Ghana's macroeconomic and fiscal context over the past decade have been characterized by relatively robust growth, rapid fiscal expansion between 2004 and 2008, and strong measures to restore macroeconomic stability and fiscal consolidation since the new Government was elected in 2008. Any discussion of the potential for new fiscal space for health in Ghana must take place in the context of these recent macroeconomic and fiscal challenges. Unchecked expansionary policies from 2004-2008 contributed new resources to the health sector, but also led to a near macroeconomic crisis. The stabilization program undertaken by the Government since 2009 has had rapid effects on the overall health of the economy in Ghana, but the gains remain fragile and the job of clearing arrears and strengthening overall public financial management is far from over.

The current macroeconomic landscape in Ghana warrants cautious optimism in the near-to-medium term.⁶⁵ The economy is projected to expand by over 14 percent in 2011, evenly divided between growth of the non-oil economy and the start of oil production (IMF, 2011). Although oil production will generate a spike in growth over the next year or two, this is not expected to be sustained, with projected growth rates returning to about 6 percent starting in 2013 (Figure 4.2). The prospects for economic growth in Ghana, therefore, remain modest but steady, which may generate some limited additional fiscal space for health cumulatively over the next three to five years.

⁶⁵ The degree to which the economy of Ghana is now on a more solid foundation is ambiguous, and different reports can be interpreted as either more or less optimistic. For example, whereas the Poverty Reduction Support Credit report of December 2010 and the UNDP's *Leveraging FiscalSpace for Human Development in Ghana* of January 2011 treat recent gains as tenuous, the recent Joint Review of Public Expenditure and Management takes a slightly more optimistic tone. The stabilization measures have been in place for only two years, however, and many of the more optimistic assessments are based on planned rather than institutionalized policy changes. It therefore seems more realistic to consider recent gains to be fragile, with long-term stability still in question.

Figure 4.2: Trends and projections for Ghana's economic growth



Source: IMF 2011.

From historical trends, economic growth in Ghana can be expected to translate at least proportionally into increased government health expenditure. Total health expenditure, as well as the government's share of total health expenditure, generally increase with national income in most countries. The responsiveness, or elasticity, of government health expenditure with respect to GDP gives an indication of whether favorable macroeconomic conditions can be expected to translate into more public expenditure on health. The elasticity of government spending to GDP is estimated to be about 1.16 across *all low-income countries* (implying that a 1% rise in income on average leads to a 1.16% rise in government health spending, on average) (Tandon & Cashin, 2010). For sub-Saharan Africa, the elasticity was estimated to be 1.17 for the period 1995-2009, although the responsiveness of government spending was slightly lower in Ghana at 1.13.

If economic growth reaches and sustains at least the modest projected levels, and government health expenditure increases at least proportionally, consistent with Ghana's total health expenditure experience over the 1995-2009 period, nominal government health expenditure could increase by 55 percent cumulatively by 2015 (Table 4.1). Adjusting for inflation, however, real government health expenditure would actually decrease by 13 percent. The contraction in real government health expenditure would be more severe if oil revenue is excluded from GDP growth, reaching almost a 20 percent decline.

Under a more optimistic scenario in which government health spending responds to GDP growth at a level consistent with the sub-Saharan average elasticity of 1.17, nominal government health expenditure would increase by 75 percent, but real expenditure would still decline by about 1 percent.

Economic growth only translates into fiscal space if it generates additional government revenue. Although Ghana has made recent progress toward more effective revenue generation, tax revenue reached only 15 percent of GDP in 2010, falling well below the average of 20 percent of GDP for lower middle-income countries (World Bank estimates). The rebasing of Ghana's GDP exposed the weakness in Ghana's revenue collection efforts. Previous GDP estimates showed revenue collection rates of over 20 percent of GDP, which made revenue collection a low priority for new public finance measures. When the GDP was rebased, however, the steep drop in the revenue/GDP ratio highlighted the need for a comprehensive review of collection procedures and processes (Ghana Revenue Authority, 2011). Therefore, there seems to be some scope for increasing fiscal space by improving revenue

collection in Ghana, as well as commitment on the part of the Government to take the necessary steps to bring revenue collection closer to international standards.

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Table 4.1: Estimates of additional fiscal space for health in Ghana from economic growth

			2010	2011	2012	2013	2014	2015
Elasticity of government health expenditure to GDP = 1.000	Oil revenue as projected	Projected nominal government health expenditure	837,982,600	941,054,460	1,020,103,034	1,083,349,423	1,151,600,436	1,220,696,462
		Projected real estimated health expenditure [1]	450,298,408	454,577,694	453,527,666	443,662,852	430,162,005	418,303,892
		<i>Real growth rate</i>		1.0%	-0.2%	-2.2%	-3.0%	-2.8%
		Nominal cumulative growth (2009-2015)	55.3%					
		Real cumulative growth (2009-2015)	-13.2%					
	Oil revenue excluded	Projected nominal government health expenditure	830,907,700	884,916,701	943,321,203	1,005,580,402	1,072,954,289	1,144,842,226
		Projected real estimated health expenditure [1]	446,496,639	427,460,269	419,391,227	411,814,193	400,784,989	392,310,434
		<i>Real growth rate</i>		-4.3%	-1.9%	-1.8%	-2.7%	-2.1%
		Nominal cumulative growth (2009-2015)	45.6%					
		Real cumulative growth (2009-2015)	-18.6%					
Elasticity of government health expenditure to GDP = 1.172	Oil revenue as projected	Projected nominal government health expenditure	846,906,407	968,993,047	1,064,388,475	1,141,731,199	1,226,032,064	1,312,246,638
		Projected real estimated health expenditure [1]	455,093,706	468,073,468	473,216,533	467,571,874	457,964,754	449,675,979
		<i>Real growth rate</i>	-5.6%	2.9%	1.1%	-1.2%	-2.1%	-1.8%
		Nominal cumulative growth (2009-2015)	66.9%					
		Real cumulative growth (2009-2015)	-6.7%					
	Oil revenue excluded	Projected nominal government health expenditure	846,906,407	911,423,737	981,924,186	1,057,877,986	1,140,946,797	1,230,538,503
		Projected real estimated health expenditure [1]	455,093,706	440,264,531	436,553,730	433,231,563	426,182,508	421,676,527
		<i>Real growth rate</i>	-5.6%	-3.3%	-0.8%	-0.8%	-1.6%	-1.1%
		Nominal cumulative growth (2009-2015)	56.5%					
		Real cumulative growth (2009-2015)	-12.5%					

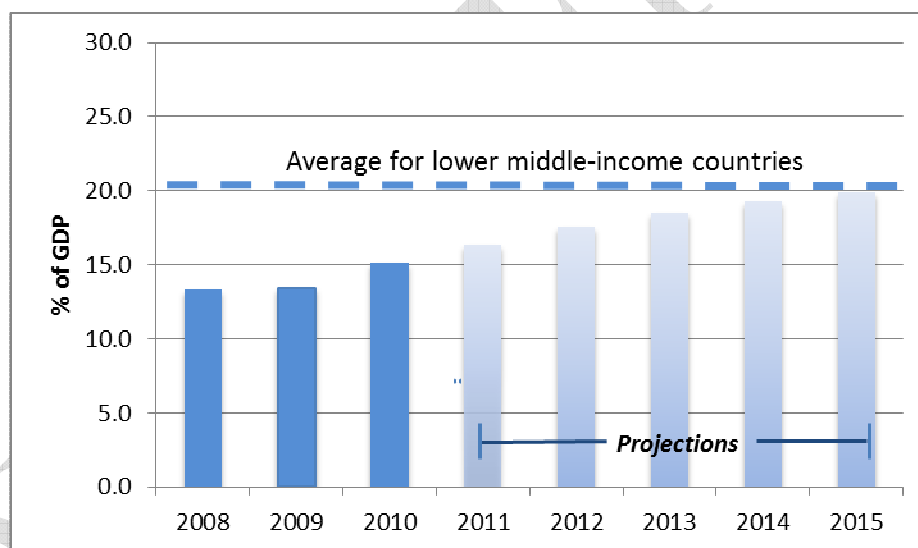
Source: World Bank estimates and author's calculations.

[1] Deflated by GDP deflator with 2006 as the base year.

Ghana is pursuing a number of measures to improve revenue collection, including establishing an integrated revenue authority, the Ghana Revenue Authority (GRA), which was launched in 2010. Other measures include reviewing the policy of using tax waivers and exemptions as incentives for attracting Foreign Direct Investment, new taxes such as a communications service tax, and tightening tax enforcement (IMF, 2011). Contrary to widespread perceptions, oil production is not anticipated by the Government of Ghana to be a major driver of new revenue, with projected tax revenue from upstream petroleum amounting to only 4.3 percent of total tax revenue (Ghana Revenue Authority, 2011). Furthermore, the Petroleum Revenue Management Act (Act 815) stipulates that 30 percent of petroleum revenue is to be saved in two special funds, and only 70 percent will be made available for the general budget (Government of Ghana, 2011).

Significant increases in government revenue are anticipated, however, from the new revenue collection efficiency measures recently put in place and planned for the near future. With all of these efforts starting immediately, the Ghana Revenue Authority (GRA) expects a 27 percent growth in revenue for 2011, which is supported by World Bank and IMF projections (Figure 4.3). These projections may appear to be overly optimistic given the challenges that remain for revenue generation in Ghana, such as the slow pace of automation of the functions of the revenue authorities and high share of informal economic activity. Nonetheless, the IMF's early projections for 2011 show that the targets for increasing revenue collection already are being met or exceeded, because of higher customs collections of VAT and trade taxes after tax administration was strengthened (IMF, 2011).

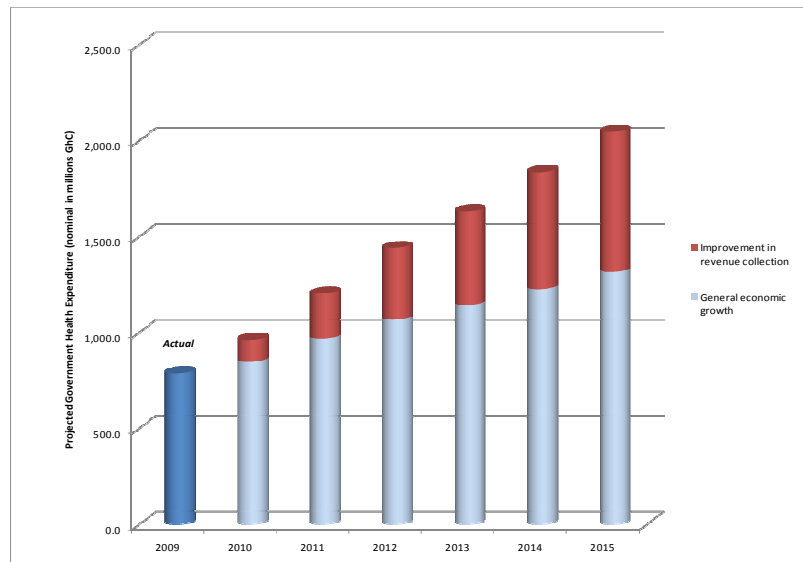
Figure 4.3: Tax revenue collection in Ghana



Source: World Bank estimates.

If the Government and World Bank/IMF projections are met, the additional revenue that will be generated over the next five years will be an important, possibly one of the most important, sources of new fiscal space for health, particularly when compounded by increased revenue that is expected from economic growth (Table 4.2). Assuming that the share of new government revenue that is allocated to the health sector at least stays constant, real government health expenditure could increase by more than 27 percent. Of that, between 11 and 32 percent of the increase is directly attributable to improved revenue collection (Figure 4.4). If government health spending increases slightly more than proportionally to revenue, real government health expenditure could increase by 45 percent, with between 12 and 36 percent directly attributable to improved revenue collection.

Figure 4.4: Projections for fiscal space for health from economic growth and improved revenue collection



Source: World Bank estimates and author's calculations.

Increased fiscal resources for health also can be generated by borrowing. Ghana, however, only recently began getting its economy back into balance after a debt-fueled expansionary period from 2004-2008, so any large-scale debt-financed investment strategies or even deficit-financed counter-cyclical fiscal expansion is unlikely (UNDP, 2011). After peaking at 40 percent in 2010, Ghana's public debt is predicted to gradually decline for the next several years. The fiscal deficit also is predicted to be brought under control by 2014. In order to meet these important elements of the Government's macroeconomic and fiscal stabilization plans, it is unlikely that large-scale debt-financed fiscal expansion will be considered as a viable option.

The overall prospects for increasing fiscal space for health in Ghana through economic growth and better mobilization of government revenues could be potentially significant, at least over the next five years. Even taking a conservative assumption that economic growth levels off at a modest 6 or 7 percent, real government health expenditure could increase by up to 45 percent by 2015 from the starting point in 2009. This new fiscal space will only be possible, however, if enhanced revenue collection efforts are successful and Ghana does achieve a collection rate of 20 percent of GDP by 2015.

Table 4.2: Estimates of additional fiscal space for health in Ghana from improved revenue collection

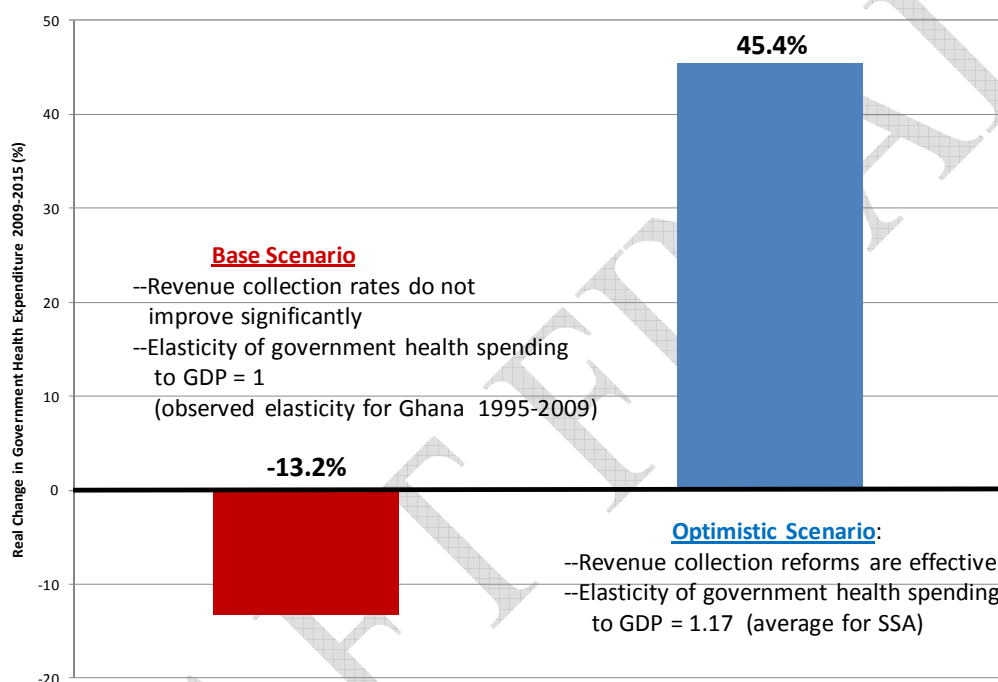
			2010	2011	2012	2013	2014	2015	
Elasticity of government health expenditure to GDP = 1.000	Oil revenue as projected	Projected nominal government health expenditure	937,031,200	1,136,618,846	1,327,570,812	1,477,586,313	1,637,165,635	1,794,333,536	
		Projected real estimated health expenditure [1]	503,523,173	549,045,348	590,224,783	605,114,235	611,537,153	614,875,790	
		Real growth rate	4.5%	9.0%	7.5%	2.5%	1.1%	0.5%	
		% attributable to improved revenue collection	11.3%	16.9%	23.6%	27.2%	30.2%	32.3%	
		Nominal cumulative growth (2009-2015)	128.0%						
		Real cumulative growth (2009-2015)	27.6%						
	Oil revenue excluded	Projected nominal government health expenditure	864,710,000	951,181,000	1,046,299,100	1,150,929,010	1,266,021,911	1,392,624,102	
		Projected real estimated health expenditure [1]	464,660,646	459,469,333	465,174,176	471,338,643	472,902,325	477,219,440	
		Real growth rate	-3.6%	-1.1%	1.2%	1.3%	0.3%	0.9%	
		% attributable to improved revenue collection	3.9%	7.0%	9.8%	12.6%	15.2%	17.8%	
		Nominal cumulative growth (2009-2015)	77.0%						
		Real cumulative growth (2009-2015)	-1.0%						
Elasticity of government health expenditure to GDP = 1.172	Oil revenue as projected	Projected nominal government health expenditure	962,991,366	1,203,388,679	1,440,331,097	1,631,082,786	1,837,538,720	2,044,283,877	
		Projected real estimated health expenditure [1]	517,473,131	581,298,611	640,356,884	667,975,470	686,383,329	700,527,878	
		Real growth rate	7.4%	12.3%	10.2%	4.3%	2.8%	2.1%	
		% attributable to improved revenue collection	12.1%	19.5%	26.1%	30.0%	33.3%	35.8%	
		Nominal cumulative growth (2009-2015)	160.0%						
		Real cumulative growth (2009-2015)	45.4%						
	Oil revenue excluded	Projected nominal government health expenditure	878,230,920	981,159,584	1,096,151,487	1,224,620,441	1,368,145,957	1,504,960,553	
		Projected real estimated health expenditure [1]	471,926,249	473,950,531	487,338,052	501,517,410	511,049,136	515,714,493	
		Real growth rate	-2.1%	0.4%	2.8%	2.9%	1.9%	0.9%	
		% attributable to improved revenue collection	3.6%	7.1%	10.4%	13.6%	16.6%	18.2%	
		Nominal cumulative growth (2009-2015)	91.0%						
		Real cumulative growth (2009-2015)	7.0%						

Source: World Bank estimates and author's calculations.

[1] Deflated by GDP deflator with 2006 as the base year.

Figure 4.5 shows two possible scenarios for changes in real government expenditure between 2009 and 2015: (1) the “base” scenario with no improvement in revenue collection and government health expenditure responding exactly proportional to increases in GDP and government revenue; and (2) the “optimistic” scenario in which new revenue collection efforts are successful, and government health spending responds to GDP with an elasticity that is consistent with the average for sub-Saharan Africa (1.17). Under the base scenario, real government health spending would decline by 13 percent, whereas improved revenue collection efforts and a higher elasticity of government health spending could increase real government health expenditure as much as 45 percent.

Figure 4.5: Projected change in government health spending under different scenarios (2009-2015)



Source: World Bank estimates and author's calculations.

Re-prioritization of Health

Another potential source of fiscal space for health is from re-prioritization of health within the overall budget of the government. There may be scope for raising health's share of overall government spending, if revenue effort increases and the government continues its expansion of NHIS, particularly if it is focused on bringing in the currently excluded poor.

The introduction of the NHIS drove a major increase in budget resources for the health sector after 2004. The health sector budget increased from GHC 120 million in 2004 to GHC 507 million in 2008, including the new resources of the NHIS. The National Health Insurance Fund's expenditure added GHC330 million to the budget in 2009. Although budgetary funds for the health sector are increasing in absolute terms, however, the actual transfers to the NHIF have been far below budgeted amounts (National Health Insurance Authority, 2010), and the share of the total budget allocated to health has remained relatively stagnant.

The share of the government budget allocated to health in Ghana has remained at about 12-13 percent in recent years. The budget share for health in Ghana is below the 15 percent Abuja target set by African heads of state in 2001 at the African Union summit in Nigeria. It is not clear, however, that Ghana's budget share for health can be

considered low. The Abuja target is not universally accepted (Health Systems 20/20, 2008), and, as shown in Chapter 2, other countries of the sub-Saharan African region spend a much lower share of their budget on health. Kenya, for example, allocated 7.1 percent of its budget to health in 2008, and Nigeria allocated only 6.5 percent (WDI).

It is unlikely that Ghana's budget share for health will be able to increase significantly over the medium term. The budget structure in Ghana currently allows little room for resource reallocation. Ghana's particularly large public sector wage bill consumes about 30 percent of the budget (MOFEP, 2010). Furthermore, four statutory funds (The National Health Insurance Fund, The Road Fund, The Ghana Education Trust Fund and the District Assemblies Common Fund), as well as other obligatory demands on government resources such as debt servicing, together take up a significant portion of the available government resource envelope. The implementation of the new wage policy, the Single Spine Salary Structure, is likely to absorb much of any limited additional flexible resources that may be available in the medium term. Furthermore, the government priorities outlined in the 2011 budget and the medium-term development framework identify job creation and infrastructural development as priorities. There are plans for major investment in several priority areas: agriculture modernization, oil and gas industry, natural resource management, road and rail transport sectors (Government of Ghana, 2010), which will put additional demands on the budget (World Bank, 2011).

Health Sector-Specific Resources

Health-specific resources, e.g., earmarked taxation or the introduction of mandatory health insurance, can be an additional source of fiscal space for the sector. Earmarking can involve dedicating an entire tax to fund a particular program (e.g. dedicated payroll tax earmarked for social health insurance) or setting aside a fixed portion of a particular tax to fund the program (e.g. a fixed proportion of general tax revenues allocated to the health budget). User fees or direct out-of-pocket payments to government facilities are also considered to be health sector-specific resources that may contribute to additional fiscal space.

NHIS

Ghana already has taken the step of introducing an earmarked tax for health to fund its national health insurance system. The "health insurance levy" earmarks 2.5 percent of the VAT for the NHIS, and 2.5 percentage points of the total 18.5 percent contribution to the Social Security and National Insurance Trust (SSNIT) by formal (both public and private) sector workers is earmarked for the NHIS. The NHIS is also funded by investment income, premiums paid by non-exempt individuals, and grants (Table 4.3). There has been a trend toward greater diversification of funding sources for the NHIS (Figure 4.6). Whereas the health insurance levy contributed over 70 percent of the total revenues for the National Health Insurance Authority in 2006, the share was only slightly over 60 percent in 2009. The share contributed by SSNIT also has declined from a high of 24.8 percent in 2006 to only 15.5 percent in 2009. A large increase in the importance of investment income has made up most of the difference.

Table 4.3: Trends in NHIA revenue by source (2005-2009)

Source of Funds	2005		2006		2007		2008		2009	
	Gh?	%	Gh?	%	Gh?	%	Gh?	%	Gh?	%
VAT	1,596,219	84.6%	117,553,900	71.1%	166,659,642	66.9%	203,392,292	61.5%	262,157,158	60.5%
SSNIT contributions	264,870	14.0%	40,969,800	24.8%	55,016,488	22.1%	55,801,398	16.9%	67,301,972	15.5%
Grants	17,326	0.9%	-	0.0%	-	0.0%	16,864,000	5.1%	10,558,984	2.4%
Investment Income	7,817	0.4%	6,803,900	4.1%	27,543,028	11.1%	36,148,113	10.9%	75,640,895	17.5%
Premiums	-	0.0%	-	0.0%	-	0.0%	18,092,732	5.5%	16,633,814	3.8%
Other	165	0.0%	27,300	0.0%	37,733	0.0%	474,423	0.1%	1,020,299	0.2%
TOTAL	1,886,397		165,354,900		249,256,891		330,772,958		433,313,122	

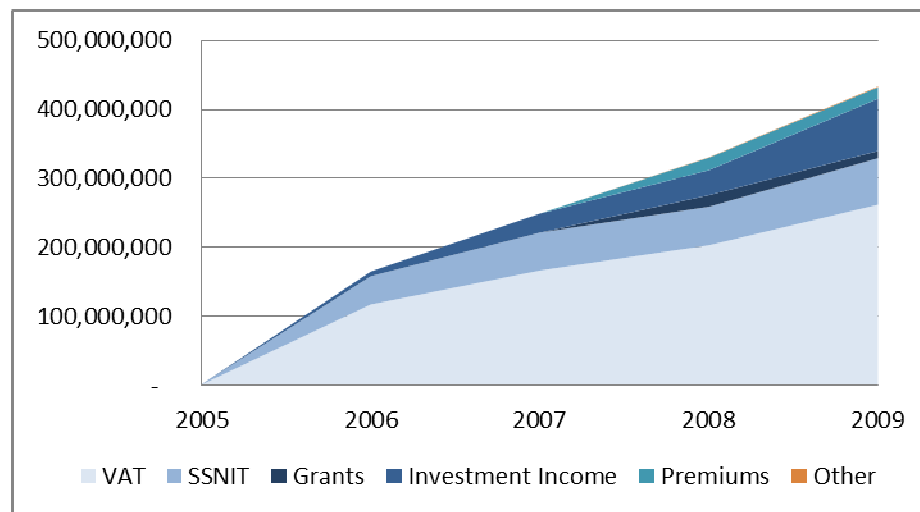
Source: National Health Insurance Authority reports and author's calculations.

According to recent projections, the resources available to the NHIS from combined sources will remain stable and continue to grow at modest rates. The amount of funds available to the NHIA from the 2.5 percent health insurance levy is expected to increase by about 20 percent per year over the next three years. Revenue from SSNIT contributions also is expected to grow substantially. The number of SSNIT contributors is directly related to the growth of Ghana's economy and the degree of formal sector inclusion in the labor market. As the economy is projected to grow at a strong pace for the next several years, the revenue for NHIS coming from SSNIT is projected to increase by almost 60 percent over the 2009 level (World Bank estimates) by 2012.

The role of premiums paid by the self-employed and informal sector works as a source of revenue has been difficult to assess. Since these premiums are paid directly to the District Mutual schemes, they have not been fully reflected in the accounting reports of the NHIA. Although an effort is being made to account for this revenue source, the figures currently reported are likely to be an underestimate. As discussed above, most of the enrollees in the NHS, however, are exempt from paying premiums. About 60 percent of members fall into one of the groups that is exempt from paying premiums,⁶⁶ and another 6 percent contribute through SSNIT rather than paying premiums. Premiums range from GhC7.20-48 per year, although it is not clear what share of enrollees pay the different premium levels and whether in reality there is any means-testing. Identifying indigent enrollees has been left to the district schemes, and it seems that these exemptions are somewhat ad hoc. There is a movement toward unifying means-tested targeting criteria in Ghana through the Livelihood Empowerment Against Poverty (LEAP), but it is not clear whether using the LEAP criteria would increase or decrease the number and share of those individuals eligible for premium exemption under the NHIS.

⁶⁶ The indigent, SSNIT pensioners, children under 18, the elderly (70+) and pregnant women are exempt from paying the premium to be enrolled in the NHIS.

Figure 4.6: Trends in NHIA revenue by source (2005-2009)



Source: National Health Insurance Authority financial statements and 2009 Annual Report.

Investment income has been an important revenue source for the NHIS, but it depends on the size of the reserve fund. Investment income has grown significantly since the NHIF was established. Growth rates from year to year range from 30 percent in 2007 to 300 percent in 2006. In 2009 investment income doubled over the previous year. This is an important revenue source and one that will become threatened if the NHIA continues to draw on the reserve fund to cover deficits.

Grants typically contribute less than 5 percent to the total revenue of the NHIS. As Ghana is moving toward middle-income status, it is unlikely that grants in general, and particularly for the NHIS, will increase significantly over the next three to five years.

Other Earmarked Taxes

Increasing taxes specifically on goods that adversely affect health, most notably tobacco and alcohol (also known as “sin taxes”), can generate revenue that can be earmarked for the health sector and that can be justified by the externalities associated with those consumption goods. The consumption of alcohol and tobacco generates costs for society beyond those to the individual consuming the products. Taxation to reduce consumption is therefore considered to be beneficial not only from a public health perspective, but also from an economic perspective. Even if they are not earmarked for health, higher taxes can discourage consumption and reduce illness and accidents (in the case of alcohol), and possibly reduce demand for health services, which benefits all of society. Australia, the US, and Korea, are examples of countries that have successfully implemented earmarked taxes on tobacco and used the revenues for public health purposes (Tandon & Cashin, 2010).

Ghana has stated in its “Shared Growth and Development Agenda” (SGDA) that it would pursue “sin taxes” as a source of revenue for the health sector (Government of Ghana, 2010). No details were given in the SGDA about the tax increases that would be considered, whether they would be earmarked, or whether projected revenues could be expected to be significant. It seems, however, that the scope for significant new revenue for health from this source would be quite limited. Ghana already has a heavily constrained budget with statutory funds and the earmarked levy for the NHIS, so it may not be politically feasible for additional earmarking. Furthermore, in Ghana both cigarette and alcohol consumption are low--smoking rates are estimated at only 8.9 percent for men and less than 1 percent for women (Owusu-Dabo E, 2009)--and revenues from these excise taxes currently account for only about 1 percent of total tax revenues.

On the other hand, Ghana's tobacco control policy is beginning to evolve, and there may be scope (although limited) for including earmarked taxes on tobacco products as a strategic part of this policy, as well as a source of funds for the health sector. Ghana is a member of the WHO Framework Convention on Tobacco Control (FCTC), which is an evidence-based treaty developed in response to the globalization of the tobacco epidemic (WHO FCTC, 2005). Some new tobacco control measures have been put in place since Ghana ratified the FCTC (Owusu-Dabo, McNeil, Gilmore, & Britton, 2010), and in particular taxes on tobacco have increased, though the tax rate remains low by international standards at about 31 percent of the retail price (MOH, 2010). The needs assessment carried out by the MOH for compliance with the FCTC noted that both the MOFEP and the Parliamentary Health Committee expressed some interest in at least examining international experience with earmarked taxation for tobacco to fund tobacco control and other public health activities.

"Internally Generated Funds"

Public health facilities in Ghana get revenue from four sources: (1) the MOH budget to pay for salaries, some other recurrent costs, and investment; (2) payments for services delivered under the NHIS; (3) out-of-pocket, or "cash and carry" payments directly by individuals not covered by the NHIS or using services outside of the benefits package; and (4) other sources, such as private insurance payments or grants from international agencies or local government. Sources (2), (3) and (4) are considered "internally generated funds" (IGF) and are treated as supplemental income to the facilities to cover the recurrent costs associated with service delivery. IGF have increased in importance for public facilities in Ghana, increasing from just under 14 percent of revenue in 2005 to 23 percent in 2009. Although the data are not possible to disaggregate, much of that increase is accounted for by the NHIS. Nonetheless, the "cash and carry" payments continue to be widespread.

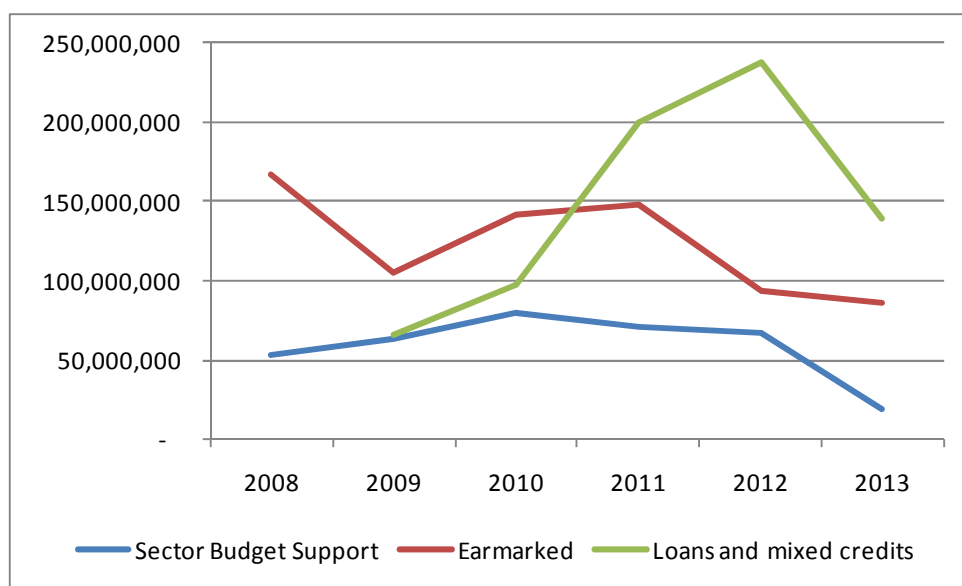
Out-of-pocket payments in the form they are now in the health system in Ghana are likely to be inequitable and not used to improve the efficiency of service utilization. The severe political backlash against "cash and carry" has prevented any discussion of copayments in the NHIS. The amount of out-of-pocket funding for health care in any case remains large in Ghana, however, and if these private payments could be harnessed under the NHIS, they could be used more effectively. In the context of a well-defined benefits package with targeted exemptions, copayments for some covered services for some populations able to pay may be able to achieve multiple objectives.

Health Sector-Specific Grants and Foreign Aid

Donor assistance contributes a large share of resources for health in Ghana, contributing more than 25 percent of total government health spending in 2009 (MOH, 2009). Although donor funding makes up a large share of government health spending, the resources are mostly inflexible and therefore of less value to the government as fiscal space. The share of donor funding that is earmarked for particular programs is high at over 60 percent. The more flexible sector budget support, which can be applied to government health priorities, makes up only about 30 percent of donor funding.

The future of donor support for the health sector in Ghana is predicted to decline starting in 2011 (Figure 4.7). Although the projections are likely to be an underestimate, donor funding should not be considered a reliable source of future fiscal space for health in Ghana. As it has recently achieved lower-middle income status, Ghana's access to concessional lending and grants will be reduced. It has been suggested in a recent UNDP report that Ghana would benefit from improving its credit rating and devising a clear exit strategy from aid (UNDP, 2011).

Figure 4.7: Trends in donor contributions to the health sector in Ghana



Source: MOH Financial Reports.

Potential Efficiency Gains

Fiscal space can also be realized through efficiency gains. If more output, coverage or quality could be achieved for the same level of health expenditure, then there is lost fiscal space in the system that could be recovered by increasing efficiency. In some cases high levels of inefficiency limit the absorptive capacity of additional resources, and addressing inefficiency may be considered a pre-condition for bringing significant additional resources into the system. Interventions aimed at improving the technical and allocative efficiency of health spending by, for example, using cost-effectiveness criteria to inform resource allocations, reducing leakages in inter-fiscal transfers, or addressing absenteeism of health workers are examples of policies that could lead to increases in effective fiscal space through efficiency gains (Tandon & Cashin, 2010).

As discussed above in Chapter 3, there are several well-known structural inefficiencies in Ghana's health system, as well as in the operations of the NHIS that likely consume a large share of resources already in the system. Addressing these inefficiencies will not only free up additional fiscal space already in the system, but will increase the absorptive capacity for future resources. The following highlight just a few of the most serious inefficiencies found in the health system in Ghana that may have the largest potential for freeing up additional fiscal space for health if they are addressed.

Poorly planned investment in hospital infrastructure. NHIS provider payment and certification procedures have important impacts on access, supply, quality, and the efficiency of the service delivery infrastructure. Besides direct 'insurance' reimbursements to MOH facilities, which accounted for 18 percent of MOH revenues and 71 percent of NHIS expenditures in 2009 (National Health Insurance Authority, 2010), there is also a direct payment from the NHIS to fund the MOH and GHS, which accounted for 14 percent of MOH revenues and 9 percent of NHIS expenditures in 2009. This needs to be assessed as to its purpose and appropriateness. Should a national health insurance organization be supporting a significant share of the MOH budget beyond reimbursement for services? Is this a matter of a simple substitution of earmarked funds for general budget funds to give the MOFEP additional flexibility? If these are legitimate payments for covered services to NHIS beneficiaries, then it is unclear why all of the payments are not being directly made to the facilities.

Low productivity and high administrative costs in health facilities. Although systematic data are not available, a recent public expenditure review found that emoluments and administrative costs make up an “exceptionally large” share of health facility expenditure, but productivity is low. Although health worker salaries have been increased significantly, and health staff are now paid salaries that are 21 percent higher than other services, there is no performance-based management or other forms of accountability for health facility staff (World Bank, 2011).

Orientation toward curative rather than primary and preventive care. Inadequate access to basic primary care services at the local level can create inefficiency through inappropriate bypassing of primary care for higher level facilities or delaying treatment until health conditions become more severe, and more expensive to treat. Ghana has committed to addressing the problems of access to basic primary care services in some geographic areas of the country, which could be a source of future efficiency gains. Expanding the Community-based Health Programme and Services (CHPS) is the main strategy for strengthening primary care service delivery (Ministry of Health, 2011). CHPS zones include a resident Community Health Nurse in a resourced community health post. Significant investment will be needed up front, however, to achieve the objective of establishing CHPS zones in at least 80 percent of the 16,000 local government units.

The NHIS benefit package is also weighted toward curative rather than primary and preventive care. There are few incentives in the system for either providers or patients to expand access to and utilization of preventive care. Paying for preventive services (such as screening for chronic diseases), family planning, and possibly even non-medical prevention such as insecticide-treated nets for malaria could generate future savings in reduced need for more expensive services and medications (Smith & Fairbank, 2008). Furthermore, payment systems such as capitation (see below) that encourage and reward prevention and keeping the enrolled population healthy may generate both immediate savings by limiting total expenditure, as well as a structural shift in expenditure patterns over the longer term.

Eligibility for NHIS Subsidy. The NHIS is a highly subsidized system, and subsidies directed to individuals who are able to pay their premium can be considered a source of inefficiency in the use of public resources. Currently 65 percent of members are in non-paying exempt groups. For children below 18 and those 70 and above, who account for about 80 percent of all NHIS exempt individuals, some estimates show that 46 per cent of these exempt individuals are in the upper two wealth quintiles of the population.⁶⁷ Targeting the government subsidy for the NHIS premium to the truly indigent and requiring means-tested contributions from the others would free up government resources to cover more of the poor.

NHIS provider payment systems. The NHIS pays hospitals and outpatient department (OPD) services a flat rate for each treated case, depending on the diagnosis (G-DRG). Although the G-DRG payment system has been an improvement over the previous traditional fee-for-service payment system, there is no cap on claims, and payment to providers has been open-ended. Utilization and total claims have continued to increase at unsustainable rates, with no mechanism to ensure that the funding is allocated in the most cost-effective way. Several easily-corrected aspects of the design of the G-DRG payment system also contribute to inefficiency and over-use of services, such as the “maximum” payment of three visits for complicated malaria, which has evolved into a minimum.

There is currently a pilot being planned in Ashanti region to test capitated payment for primary care, and discussions continue about better enforcement of a gate-keeping system. It is critical, however, for the NHIS to have a comprehensive purchasing and provider payment strategy that creates incentives across the continuum of care to improve quality and use services in a cost-effective way.

NHIS payment for medications. Pharmaceuticals account for some 50 percent of NHIS spending and NHIs accounts for about 44 percent of total pharmaceutical spending. The complex range of NHIS and overall Ghanaian

⁶⁷ Under current arrangements children 18 and below are covered if both the parents are NHIS members. However, legislation is pending to drop the parent enrolment requirement.

pharmaceutical issues are discussed in the CSR and a separate CSR pharmaceutical background paper.⁶⁸ There are major issues concerning not just prices and spending, but quality, prescribing patterns, fraud and abuse and most critically patient health outcomes. In the following chapter, possible savings from changes in pharmaceutical policies are discussed.

Operational inefficiencies. Delay in claims processing has been a major source of inefficiency within the NHIS. Until recently, the NHIS could have a backlog of several months of unprocessed claims. The delays in payments to providers create enormous inefficiencies, as providers do not have a reliable flow of funds to operate their facilities. Due to delays in payment, providers may stock-out of essential supplies and medicines, are forced to buy them on credit, or to charge patients directly. Such severe payment delays also dilute the incentives of provider payment systems. Claims processing bottlenecks also create inefficiencies for the NHIS. It has been difficult to monitor expenditure flows and get a real picture of the actual costs of operating the system. Progress has been made to reduce claims delays for those claims processed through the national NHIS claims processing unit. As claims processing is further centralized, it will be a challenge to continue to automate and streamline processing to maintain the reduced turn-around times.

Several of the potential efficiency gains, such as expanding CHPS zones and further automating NHIS claims processing, will require up-front investment in order to realize future savings.

Conclusions

The fiscal space analysis showed that Ghana has modest prospects for additional fiscal space for health over the next three to five years, but that real growth in resources available for the health sector is to a certain extent dependent on oil revenue and the ability of the Government to significantly improve its revenue collection efforts as planned. Most importantly, serious efficiency gains are needed to generate additional fiscal space for health, but also to improve the absorptive capacity for existing and new resources flowing into the system. Under any scenario, however, additional fiscal space from macroeconomic growth and improved revenue collection begins to slow after 2013. The reality of the macroeconomic and fiscal situation also points to the need for serious efficiency gains in the health sector, particularly related to the expenditure patterns and premium exemptions of the NHIS.

Looking specifically at the availability of government resources for the NHIS, the earmarked funding sources will provide a high degree of stability in revenues into the foreseeable future. Revenue for the NHIS will continue to grow robustly according to the projections in the fiscal space analysis. The revenue will not be sufficient to sustain and expand the NHIS, however, under the current expenditure patterns. If the structural inefficiencies in the NHIS and in the health service delivery system are not addressed, the NHIS is projected to become insolvent by as early as 2013. It is difficult to argue for bringing additional resources into an inefficient system without accompanying structural and operational changes. However, there are options for reform packages addressing both the revenue and expenditure sides that could make the NHIS viable and sustainable beyond the short term. A comprehensive set of reform options is discussed in detail in the next chapter.

⁶⁸ See Seiter, A. CSR Pharmaceutical background paper (2011) and World Bank, Ghana CSR (2012).

Chapter 5 - Health Financing Reform Options

Introduction

Ghana is well down the road of transitioning from a supply side budget driven health system to demand-side financing where money follows patients. Ghana's health reform path is serving as an example for sub-Saharan Africa, and indeed low- and middle-income countries throughout the world. In spite of recent public criticisms of the system, many aspects of Ghana's NHIS can be considered a model good practice. The analysis in the previous chapters has shown that Ghana has made remarkable progress in establishing stable and diverse funding sources for its NHIS, and the new purchasing function is beginning to mature with the potential to drive fundamental changes in service delivery. Most importantly, while still in its early days, the NHIS system appears to have made a difference for the population of Ghana. Service utilization, which had declined precipitously under the 'cash and carry' system, has rebounded. Out-of-pocket spending for the population over the last decade has declined significantly, and there is also evidence that the impact of insurance on utilization of health care is highest for the poor. Consumer satisfaction with the system is high.

In spite of these achievements, however, the NHIS in Ghana faces serious challenges. Current expenditure patterns, driven by the structural features of the system, enrolment inequities, proposed continued expansions, and implementation problems, are unsustainable, and the NHIS faces a serious threat of insolvency within the next three years if the trajectory is not altered. Fundamental reforms are needed in administrative systems, eligibility requirements, structure of the benefit package, and how providers are paid if the NHIS is to survive and achieve its goals.

This chapter focuses on reform options to deal with the basic structural design and implementation problems in Ghana's health financing system with a principle focus on NHIS. While overall health spending levels and their sustainability are discussed in the context of Ghana's likely future available fiscal space, the emphasis here is on needed structural and operational reforms to the NHIS to assure its medium to long-term financial viability in terms of both revenues and expenditures. This report does not focus on financing basic public health, overall pharmaceutical sector policy, or infrastructure changes as these are the subjects of other focused reports as well as the overall Ghana Country Status Report.

The preceding analysis portrays Ghana's health financing situation as follows:

- The country spends less than 5 percent of its GDP on health which is slightly below average for a LMIC of Ghana's income level.
- 47 percent of all spending is private and 37 percent is from out-of-pocket payments, the remaining 10 percent from private insurance and other private risk pooling mechanisms.
- Of the 53 percent public spending share NHIS accounts for around 30 percent of public spending and 16 percent of total health spending.
- In terms of the relationship between nominal health spending and nominal GDP growth, total health spending over the full 1995-2009 period increased annually 3 percent more rapidly than GDP (nominal elasticity of 1.03), public spending increased 13 percent more rapidly (1.13) and private spending increased 7 percent less rapidly (0.93).
- These increases were all lower than the averages for SSA as a whole, where the elasticities of total, public and private health spending relative to GDP were 1.09, 1.17, and 1.02.

- After the implementation of NHIS in 2004, total health spending increased at the same rate as GDP (1.00) and public (1.11) spending continued to increase significantly more rapidly than GDP, while private (0.87) spending showed yet lower increases.
- NHIS will start running deficits in 2010 and exhaust its reserves by as early as 2013.
- The revenue sources funding both Ghana's overall health financing system and NHIS are basically progressive.

In terms of what Ghana is getting for this investment in health:

- Health outcomes are generally worse than other comparable income and health spending countries except for life expectancy.
- Ghana has lower levels of health inputs relative to its income and health spending comparators.
- For its income level out-of-pocket spending as a share of total health spending (a measure of financial protection) is the same or slightly higher than other comparators and double the recommended WHO thresholds.
- From an equity perspective, membership in the NHIS appears to lead to better utilization for the poor of health facilities, although NHIS targeting and benefit incidence do not appear to be pro poor
- NHIS reported membership has increased from 1.2 million in 2005 to over 8.16 million in 2010, reaching 34 percent of the population.
- Access has improved and consumer satisfaction is high.

One other critical element in discussing health financing reform options is the future state of Ghana's economy. If the economy would be growing at double digit rates, one might be able to simply ignore dealing with NHIS's future deficits as it has a de facto tap on the government budget to finance such deficits. However, with public spending on health over the last 5 years increasing 11 per cent a year faster than GDP and 15 percent per year faster than government revenues, with the NHIS transitioning to cover the remaining 60 percent of the population, with the country facing a dual disease burden of communicable diseases with an increasing prevalence of NCDs and injuries, with a BBP covering 95 per cent of the BOD with no cost-sharing, with poor targeting and the subsidization of large numbers of currently exempt individuals with ability to pay, with Ghana's low revenue raising effort (e.g., low revenue to GDP ratio), with decreasing donor support, with serious inefficiencies in the health system and NHIS provider payment procedures, and numerous other competing government priorities, failure to act decisively would be both politically irresponsible and unaffordable.

Thus structural and operational reforms in NHIS and the health system to improve its equity and efficiency along with revenue enhancements need to be considered. Revenue changes must be considered in the context of future fiscal space, a situation which has perceptually changed significantly given the upward revaluation of GDP by some 60 percent in November 2010. The preceding fiscal space analysis indicates that although economic growth and improved revenue collection efforts will provide modest but steady increases in fiscal space for health over the next three to five years, adding significant new expenditure burdens to the fragile macroeconomic and fiscal recovery is not realistic. Additional increases in resources for the NHIS, therefore, are likely to have to come from within the system, and through efficiency gains from more rational expenditure patterns.

While all health financing systems are country-specific, global 'good practices' can help inform Ghanaian policy-makers in the design of their reform policies. A brief review of global 'good practices' follows.

Global 'Good Practices'

Recent studies by the World Bank, WHO, OECD, and the IMF provide useful lessons on the much neglected area of global 'good practices' and also help address the very difficult area of efficiency of health spending. The World

Bank's recent study, "Good Practices in Health Financing: Lessons from Low- and Middle-Income Countries" identified 15 "enabling factors" based on nine "good practice" case studies (Chile, Colombia, Costa Rica, Estonia, the Kyrgyz Republic, Sri Lanka, Thailand, Tunisia and Vietnam) (Table 5.1). These identified factors are consistent with those in a previous Bank study that identified the key enabling factors in high-income countries.⁶⁹

Table 5.1: Enabling conditions for health reforms

Institutional and societal factors	Implementation Factors
• Strong and sustained economic growth • Long-term political stability and sustained political commitment • Strong institutional and policy environment • High levels of population education	• Coverage changes accompanied by carefully sequenced health service delivery and provider payment reforms • Good institutional systems and evidence-based decision-making • Strong stakeholder support • Efficiency gains and co-payments used as financing mechanisms • Flexibility and mid-course corrections
Policy factors	
• Commitment to equity and solidarity • Health coverage and financing mandates • Financial resources committed to health, including private financing • Consolidation of risk pools • Limits to decentralization • Primary Care (First Contact Care) Focus	

Source: Gottret, P. and Schieber, G. (2006)

Another recent World Bank publication, *Governing Mandatory Health Insurance*⁷⁰ responds to the lack of information concerning the key governance factors that affect the operation of mandatory health insurance (MHI) funds. The report focuses on governance issues such as supervisory boards, regulations, auditing and accountability. These factors influence performance significantly and require inclusion within a broader agenda of health reforms. It discusses good practices based on case studies (Chile, Estonia and the Netherlands) and other global experience.

Table 5.2: Governance factors related to mandatory health insurance

Dimension	Features
Coherent decision-making structures	Responsibility for mandatory health insurance (MHI) objectives must correspond with decision-making and capacity in each institution involved in the management of the system. All MHI entities have routine risk assessment and management strategies in place.

⁶⁹ Gottret, P. and Schieber, G., 2006.

⁷⁰ Gottret, P. and Savedoff, G., 2008.

	The costs of regulating and administering MHI institutions are reasonable and appropriate
Stakeholder participation	Stakeholders have effective representation in the governing bodies of MHI
Transparency and information	The objectives of MHI are formally and clearly defined. MHI relies upon an explicit and appropriately designed institutional and legal framework Clear information, disclosure and transparency rules are in place MHI entities are subject to minimum requirements with regards to protecting the insured
Supervision and Regulation	Rules on compliance, enforcement, and sanctions for MHI supervision are clearly defined Financial management rules for MHI entities are clearly defined and enforced The MHI system has structures for ongoing supervision and monitoring in place
Consistency and stability	The main qualities of MHI system are stable

Source: Gottret and Savedoff, 2008

The 2010 World Health Report and its numerous background papers provide a plethora of empirical and conceptual information on the key issues in establishing universal health insurance coverage. One particularly innovative aspect of the report is an in-depth look at potential efficiency gains, an area much neglected in most studies, and one of the most important areas for obtaining additional fiscal space in all countries. Figure 5.1 below provides estimates of the potential financial gains from different types of efficiency improvements by country income class. As shown below savings can be quite significant: in the range of 20-40 percent for a comprehensive set of reforms. All of the areas identified: human resources, medicines, hospitals, leakages, and intervention mix – have been identified in Chapter 3 and the CSR as potential areas for needed reforms in Ghana.

Figure 5.1: Potential efficiency savings by cost and country income category

	Share of total health spending (%)		Potential efficiency savings (%)		Potential efficiency savings (% of total health spending) ^a		Potential efficiency savings per capita (US\$) ^b		Potential efficiency savings across total population (US\$ billion)		
	From	To	From	To	From	To	Mean	Range	Mean	Range	
Human resources									\$563	110	- 851
High-income	55%	- 65%	15%	- 25%	8%	- 16%	\$492	78 - 629	\$499	79	- 639
Mid-income	45%	- 55%	15%	- 25%	7%	- 14%	\$14	7 - 48	\$61	29	- 206
Low-income	50%	- 60%	15%	- 25%	8%	- 15%	\$2	1 - 5	\$3	1	- 6
Medicine									\$115	24	- 193
High-income	15%	- 21%	10%	- 15%	1.5%	- 3%	\$93	14 - 122	\$95	14	- 124
Mid-income	20%	- 30%	10%	- 15%	2%	- 5%	\$5	2 - 16	\$19	9	- 67
Low-income	25%	- 35%	10%	- 15%	3%	- 5%	\$1	0 - 2	\$1	0	- 2
Hospitals									\$287	54	- 503
High-income	32%	- 42%	10%	- 20%	3%	- 8%	\$233	30 - 325	\$236	31	- 330
Mid-income	35%	- 45%	15%	- 25%	5%	- 11%	\$11	5 - 39	\$49	23	- 168
Low-income	27%	- 37%	15%	- 25%	4%	- 9%	\$1	1 - 3	\$2	1	- 4
Leakages									\$271	51	- 468
High-income					3%	- 8%	\$221	28 - 310	\$224	29	- 315
Mid-income					5%	- 10%	\$10	5 - 35	\$44	22	- 150
Low-income					5%	- 10%	\$2	1 - 3	\$2	1	- 4
Intervention mix									\$705	141	- 1,094
High-income					10%	- 20%	\$602	95 - 774	\$611	96	- 786
Mid-income					10%	- 20%	\$21	10 - 70	\$89	43	- 299
Low-income					10%	- 20%	\$3	2 - 7	\$4	2	- 8
TOTAL									\$1,409	282	- 2,188
High-income					20%	- 40%	\$1,204	189 - 1,548	\$1,223	192	- 1,573
Mid-income					20%	- 40%	\$42	20 - 140	\$178	86	- 599
Low-income					20%	- 40%	\$7	3 - 13	\$8	4	- 17

Source: WHO, WHR, 2010.

A recent IMF study of excess cost growth in 27 advanced and 23 emerging market countries analyzed the factors responsible for excess health care cost growth and the effectiveness of measures to contain it.⁷¹ Figure 5.2 contains a typology of cost control mechanisms. The IMF study also provided estimates of the effectiveness of different measures in controlling costs. Of particular interest is the potential effectiveness of extending market mechanisms, improving public sector management, and budget caps, while price controls appear to be ineffective.

⁷¹ Clements, B., et al. (2010).

Figure 5.2: Reforms in advanced countries—a typology

Reforms implemented in advanced countries over the past three decades can be grouped into three categories:

Macro-level controls

- **Budget caps:** These are the bluntest instrument for restraining resources allocated to the public health sector. They can be expressed as limits on overall healthcare spending or on sub-sectors, such as hospitals or pharmaceuticals. Examples include global budgets for hospitals or expenditure ceilings for general practitioners.
- **Supply constraints:** Here the focus is on regulating the volume of either inputs into or outputs from the health care system. Input controls include limits on admittance to physician training colleges, defining positive lists for drugs, or rationing of high-tech capital equipment. Output controls include delisting of certain treatments, such as eye tests and dental treatment.
- **Price controls:** Price controls regulate prices of inputs or outputs. They include wage controls for health care professionals, reference pricing for pharmaceuticals products, and price controls on specific treatments.

Micro-level reforms

- **Public management and coordination:** These reforms seek to alter the organizational arrangements between different parts of the health care system in order to reduce costs through improved coordination, alignment of responsibility and accountability, better incentive structures, and/or reduction in overlap or redundancy. Examples of such changes include abolition of managerial levels, decentralization of health care functions, and introduction of gatekeeping arrangements (i.e., a physician who manages a patient's healthcare services, coordinates referrals to secondary and tertiary levels, and helps control healthcare costs by screening out unnecessary services).
- **Contracting:** How providers are reimbursed is one of the most important factors impacting the micro-level efficiency of health spending. There are many different ways to pay physicians, hospitals, and other providers but three of the most general methods include: (i) salaries or budgets; (ii) case-based payment like capitation or DRGs; and (iii) fee-for-service.
- **Market mechanisms:** These reforms seek to improve micro-level efficiency and/or control costs by introducing varying degrees of market mechanisms into the health sector. These reforms operate not so much on the supply side, as on the nexus between supply and demand. Examples include the creation of internal markets (e.g., where primary care physicians purchase services from hospitals), separating the purchase of health services from provision (thus allowing competition among providers), and promoting patient choice (e.g., where patients can choose among primary care providers and hospitals).

Demand-side reforms

These reforms include policies intended to increase the share of health care costs borne by patients, often with the objective of avoiding excessive consumption of specific health services. The two important issues on the demand side are the level of patient cost-sharing (this can take form of lump-sum or percentage copayments) and the tax treatment of private health insurance.

Source: Clements, B., et al. (2010), p.20.

A recent OECD study entitled “Value for Money in Health Spending” analyzes the impacts of various policies for limiting public spending on health during periods of constrained budgets.⁷² Figure 5.3 highlights the range of policies and their likely impacts temporally and on health systems objectives.

Figure 5.3: Impacts of various health spending restraint policies

OECD 2010
VALUE FOR MONEY IN HEALTH SPENDING © OECD 2010

2. POLICIES FOR HEALTH CARE SYSTEMS WHEN MONEY IS TIGHT

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Table 2.1. Policies for limiting spending in a period of budget restraint

Characteristics, impacts and tradeoffs	Impact on expenditure		Objectives and trade-offs			
	Strength	Impact lag	Financial protection and access to care	Quality of care	Responsiveness	Cost efficiency
A. Macroeconomic policies aimed at expenditure restraint						
A.1. Wage and price controls (labour)	HIGH	SHORT	NONE	NONE/NEGATIVE	NEGATIVE	POSITIVE
A.2. Wage and price controls (medical materials)	HIGH	SHORT	NONE	NEGATIVE	NEGATIVE	POSITIVE
A.3. Controls on volume of inputs (labour)	HIGH	MODERATE	NONE/NEGATIVE	NEGATIVE	NEGATIVE	POSITIVE
(capital investment)	HIGH	SHORT	NONE/NEGATIVE	NEGATIVE	NEGATIVE	POSITIVE
A.4. Controls on volume of other inputs (high tech/drugs)	MODERATE	SHORT	NEGATIVE	NEGATIVE	NEGATIVE	POSITIVE/NEGATIVE
A.5. Budget caps (sector and global)	HIGH	SHORT	NEGATIVE	NEGATIVE	NEGATIVE	POSITIVE/NEGATIVE
A.6. Shifting costs to private sector (increased financing of cost by users)	MODERATE	MODERATE	NEGATIVE	POSITIVE/NEGATIVE	POSITIVE/NEGATIVE	POSITIVE
B. Microeconomic policies aimed at increasing efficiency						
B.1. Demand side						
B.1. Disease prevention and health promotion	LOW/MOD	LONG	POSITIVE	POSITIVE	NONE	POSITIVE
B.2. Gate-keeping/triaging	LOW	LONG	POSITIVE	POSITIVE	POSITIVE/NEGATIVE	POSITIVE
B.3. Care co-ordination integrated care/self-care	MODERATE	LONG	POSITIVE	POSITIVE	POSITIVE/NEGATIVE	POSITIVE/NEGATIVE
B.4. Better patient/doctor contact	LOW	MODERATE	NONE/POSITIVE	POSITIVE	NONE/POSITIVE	POSITIVE/NEGATIVE
B.5. Access to a PC doctor out-of-office hours (to take the pressure off hospital emergency services)	MODERATE	LONG	POSITIVE	POSITIVE	POSITIVE	POSITIVE
B.2. Supply side						
B.6. Further shift from hospital to ambulatory care	MODERATE HIGH	LONG	NEGATIVE	POSITIVE/NEGATIVE	NEGATIVE	POSITIVE
B.7. Enhancing the role of health-care purchasers	MODERATE	LONG	POSITIVE/NEGATIVE	POSITIVE	POSITIVE/NEGATIVE	POSITIVE
B.8. Improving hospital contracting/purchasing/payment systems	MODERATE	LONG	NONE	POSITIVE/NEGATIVE	POSITIVE/NEGATIVE	POSITIVE
B.9. Increasing managerial independence	LOW	LONG	UNKNOWN	POSITIVE	POSITIVE/NEGATIVE	POSITIVE
B.10. Improving payment methods/incentives for hospitals	MODERATE	LONG	POSITIVE	POSITIVE	POSITIVE/NEGATIVE	POSITIVE
B.11. Overseeing technological change and the pricing of medical goods	MOD/LOW	LONG	POSITIVE/NEGATIVE	POSITIVE/NEGATIVE	POSITIVE/NEGATIVE	POSITIVE
B.12. Increased use of ICT for information transmission	MOD/LOW	LONG	POSITIVE/NEGATIVE	POSITIVE	POSITIVE/NEGATIVE	POSITIVE/NEGATIVE

Note: Based on previous policy assessment by the OECD Secretariat and the literature. The first column refers to the type of reform policy. The following two columns refer to their potential impact on expenditure taking into account the potential size of the impact and the importance of implementation lags. The last four columns highlight some of the impacts of these policies on health care objectives, suggesting areas where trade-offs among policies may arise. A positive effect indicates a likely better achievement of the indicated policy objective while positive/negative means that the policy could have positive or negative effects depending on the underlying institutional environment and/or the way policies have been introduced.

Source: OECD, 2010.

While Ghana has most of the enabling conditions of successful health care reform ‘good practices’ and governance arrangements, it lacks others (e.g., limiting decentralization and primary care focus). This is perhaps the time for a serious mid-course correction, given the unsustainability of the system, the ‘new’ macro environment and a mixed performance record. Additional ‘revenues’ for further expansion will need to come from a combination of additional receipts as well as efficiency gains.

Many of the policy tools for controlling health spending are in their development stages in Ghana, and indeed most of the cost containment mechanisms discussed above are absent in Ghana. Building on the sensible start Ghana has made with respect to DRGs and primary care capitation, it is incumbent on Ghanaian policy makers in MOFEP, NHIS, MOH, and GHS to carefully assess these different mechanisms which have differential impacts on access, costs, and quality, and ultimately affect all aspects of health systems functioning – equity, efficiency, sustainability,

⁷² See OECD (2010).

health outcomes, financial protection, and consumer responsiveness. The hard-learned lessons from the international experiences of both high income and emerging market countries provide an important knowledge base for the effective design and implementation of many of the reform options discussed below.

However, one must keep in mind that a major precondition for reform policy analysis is to have relevant data for decision-making. It is not possible to run a modern health system or health insurance scheme in the world today without having a modern health information system in place. Likewise, at the providers, equally modern hospital information systems and clinic information systems are needed to capture, collate and create claims to be sent to the payer for payment/reimbursement as well as to the MOH and GHS for disease surveillance, epidemiological monitoring, and health planning. In Ghana much of this infrastructure is still missing as the overall plan for creating a modern information flow is yet to be devised, based on sector-wide standards which all stakeholders follow. For NHIS this problem results in serious deficiencies and duplications in membership and registration counts, claims level information are incomplete and not timely, and financial management information is prone to error.⁷³ Below various options for reforming both the structural basis of NHIS as well as improving its operational effectiveness are analyzed. Given Ghana's 20+ year transition through several different approaches – NHS, cash and carry, community-based health insurance schemes, DHMISs, and now evolving to a single payor mandatory health insurance system, except for the OXFAM recommendation of going back to a NHS approach, the reform options discussed below are focused on incremental changes from the current base and not redesigning a new system from scratch.

Re-Engineer NHIS or Scrap It for a National Health Service

Fundamental changes in the basic NHIS structural 'model' as well as reforming its major operational features are considered in the context of NHISs basic objectives, achievements to date, structural and operational deficiencies, available fiscal space, and the global evidence base.

Replace NHIS with a NHS

The most fundamental reform of the health financing system (as proposed by OXFAM) would be to scrap the NHIS and go back to a national health service. Figure 5.4 summarizes the basic pros and cons of this option.

⁷³ For the purposes of the rough order of magnitude estimates undertaken in this study, we use the NHIS Annual Report Information, recognizing that such data should not be used for precise point estimates. See Hendriks, R. (2010).

Figure 5.4: Replace NHIS with a NHS

Scrap NHIS and go Back to a NHS

Advantages

- NHIS is a complete and expensive failure covering only 18 percent of the population (OXFAM).
- After 5 years of operation, NHIS administrative processes and HMIS are still extremely deficient.
- A NHS covers everyone, is more equitable, and more efficient.
- Reliance on a publicly-owned and operated delivery system is much more efficient than relying on private sector providers.

Disadvantages

- Previous NHS approaches in Ghana resulted in the discredited cash and carry system, access and use fell, and the system was inefficient.
- NHIA covers all vulnerable groups and is financed with equitable and efficient earmarked revenues – one of the supposed advantages to a NHS.
- Given that:
 - NHS financing is largely equitable and efficiently general revenue based now;
 - revenues from the NHIL are earmarked for the poor and other vulnerable groups;
 - private providers account for some 50 percent of service delivery;
 - consumer satisfaction with the NHIS is high; and
 - the Government is committed to expand NHIS and make it work effectively;
- OXFAM's recommendation to scrap NHIS does not appear to be a preferred or sustainable starting or end point on political, analytical policy reform, or sustainability grounds.

OXFAM argues that NHIS has been an expensive failure on virtually all grounds and NHSs are: fairer as they rely on general revenue financing, more equitable in terms of covering all the poor, and more efficient as they rely on public ownership and provision. Without rehashing the heated debate inspired by the OXFAM report and recognizing that many of the findings in the report are simply wrong (e.g., 18 percent coverage rate) or questionable (affordability of free care for everyone for a comprehensive BBP, greater efficiency of public provision and ownership), that report, the analysis here, and the NHIS itself recognize that there are significant improvements needed in both the design as well as operations of NHIS.

As discussed above a focus on generic models is meaningless. Both a NHS and a universal mandatory health insurance (MHI) fund such as NHIS pool risks and provide financial protection in an insurance sense. Countries need to focus not on generic models, but rather on the functions of revenue collection, risk pooling, and purchasing and doing them in the most equitable, efficient, and sustainable manners to achieve health outcomes, financial protection and consumer responsiveness.

From a revenue collection perspective it is argued that general revenues, which are associated with NHS approaches, are a more equitable, efficient and sustainable revenue source than payroll taxes and other subsidies needed by MHI schemes if they are to cover the poor. However, as discussed above Ghana's NHIS, much like the classic NHS model is already funded largely by general revenues, and earmarked national tax subsidies are dedicated for the poor and informal sector workers whose premiums are income-related. Furthermore the revenue sources used to finance NHIS are largely progressive. With its very low revenue effort and likely resistance from the MOFEP to further reduce its economic management flexibility by earmarking yet additional revenues to health, seeking additional revenues for further risk pooling from additional general revenue contributions would not appear to be very feasible, rather obtaining those revenues from individuals with ability to pay (as well as enforcing greater compliance on formal sector firms with SSNIT) makes good policy sense and could indeed reduce pressure on the government budget. Thus from the revenue collection side, NHIS has all the advantages of a NHS approach and has dealt with the problems often encountered in MHI systems in terms of financing the poor and other disadvantaged groups.

In terms of risk pooling the ultimate goal of NHIS is to cover the whole population in the same way a NHS does. Reforming administrative processes, continuing to expand coverage, and providing incentives/penalties for both uninsured informal and formal sector workers to enroll as required by the Law will result in risk pooling and coverage for the entire population as is the case with a NHS. From a risk pooling perspective there is no difference between a single fund universal health insurance system and a NHS. The serious issue under both systems is that for universal coverage to be a reality individuals need to be enrolled and services need to be available to all beneficiaries. Here the GoG needs to deal with Ghana's delivery system supply constraints and the maldistribution of resources, irrespective of the financing approach undertaken.

From a purchasing function perspective, there is no body of literature which inherently proves that a government-owned and operated NHS is more efficient than a MHI. The issue is the incentives built into the system. Modern payment systems generally require purchaser-provider splits and pay for performance provider payment systems, which can be implemented by a NHIS or NHS. Indeed many argue that it is easier to install such systems in a MHI system rather than deal with changing civil service rules. Moreover with some half of all NHIS care provided by the private sector, does it make sense on access and capacity grounds to switch to a fully government owned system? Ghana's historical experience with the MOH as a NHS does not bode well for scraping the NHIS and reconstituting the MOH and its delivery system as the national insurance entity for the country.

In sum, given that NHIS financing is largely progressively, equitably and efficiently general revenue based now, that revenues from the NHIL are earmarked for the poor and other vulnerable groups, that private providers account for some 50 percent of service delivery, that consumer satisfaction with the NHIS is high, and that the Government is committed to expand NHIS and make it work effectively, OXFAM's recommendation to scrap NHIS and return to a classic general-revenue funded NHS with no premiums or copayments and a public delivery system, does not appear to be a preferred or sustainable starting or end point on political, analytical policy reform, or sustainability grounds. Rather than throw out the baby with the bath water, a better approach is to build on NHISs strengths and deal with the problems. Under current funding processes and levels, policy arrangements, and operational experience, most of these problems would also be indigenous to a NHS. In other words reform options should focus on structural re-engineering of NHIS and improving its operational effectiveness, while concurrent policy reforms in public sector management, public health, the service delivery system, etc. are undertaken.

Re-Engineer NHIS through Structural Reforms

The previous section assessed scrapping the NHIS. Here reforms of its major structural and operational features are discussed. For the NHIS to more effectively function reforms should be considered in its major structural features and operational areas: eligibility, BBP and cost-sharing, contribution base and levels of subsidies, provider payment, pharmaceutical policies, and administration including status of DHMISs and HMIS.

Health financing policy in Ghana should focus on the following:

1. At least maintaining the share allocated to the health sector of any new revenue, either from economic growth or improved revenue collection. Revenue for the NHIS has been stable and growing modestly over time. Except for informal sector enrollees, financing is largely progressive. It should be possible to maintain this trajectory given the macroeconomic and fiscal projections presented in Chapter 4. It would be difficult to argue, however, for dramatically increasing funds devoted to the NHIS given the fragile macroeconomic recovery and fiscal consolidation in Ghana, as well as the current inefficiencies in the NHIS and health system more generally. Obtaining additional revenues for spending increases on an inefficient base is not good policy. How money is spent is at least as important as how much money is spent.
2. Ensuring that the full amounts of commitments from all sources are transferred to the NHIF in a timely manner.

3. Optimizing the mobilization of resources *within* the NHIS through enforced means-tested premiums and possibly strategic copayments to both add to the revenue base and direct utilization toward more cost-effective services.
4. Embarking on a serious strategy of strategic purchasing within the NHIS to use provider payment systems and other purchasing tools to contain cost growth and improve the cost-effectiveness of service utilization and drive greater efficiencies in the health system.
5. Addressing the severe operational inefficiencies within the NHIS, particularly claims processing bottlenecks.

These measures are discussed in detail below.

NHIS Revenue

Maintaining NHIS' Share of New Government Revenue

The overall prospects for increasing resources for health in Ghana through economic growth and better mobilization of government revenues could be potentially significant, at least over the next five years. Even taking a conservative assumption that economic growth levels off at a modest 6 or 7 percent, real government health expenditure could increase by up to 45 percent by 2015 from the starting point in 2009. As Ghana continues its transition to universal coverage, it is important that the NHIS, and the health sector as a whole, continue to benefit at least proportionally from any government revenue gains, and it could be argued that the share should increase slightly, given the relatively moderate share of GDP and the government budget that Ghana currently spends on health as well as the significant expansions of coverage envisioned. Major additional increases in health spending beyond what will be possible from economic growth and improved revenue collection are not realistic, however, given Ghana's fragile macroeconomic recovery and fiscal consolidation.

Contribution Base and Levels of Subsidies

For NHIS to be sustainable it will need to deal with both the expenditure and revenue sides of its ledger. It is important to keep in mind that revenue enhancement in and of itself (except for cost-sharing) does little to encourage efficient spending. One does not want to expand a health insurance system on an inefficient base. Simply increasing revenues to pay for such expansions, results in very poor value for money.

As discussed above NHIS's contribution rates are not actuarially based. In effect NHIS is basically a general revenue financed program as the NHIL accounts for 61 percent of program revenues and over 75 per cent of revenues if investment income (which will be gone by 2013) and the small donor contribution (which may also disappear given Ghana's new found LMIC status) are excluded. Adding in the other national revenue source, the SSNIT, results in 77 percent of revenues being from national taxes. Excluding investment income and donor support means that these 2 national taxes, the VAT (NHIL) and SSNIT, account for 95 per cent of program revenues. As discussed above the revenue sources for NHIS are broad based and except for the informal sector enrollees, largely progressive.

Thus in conjunction with gains from improving spending efficiency (i.e., efficiency gains are defacto a revenue source), if additional revenues are still needed, NHIS must decide what mechanisms to employ. Among the options frequently considered are:

- increase the VAT earmark
- increase the 2.5 percentage points SSNIT contribution dedicated to health from the 18.5 percent social security tax either by increasing the tax rate or by reallocating additional percentage points from pensions to health
- earmark revenues from the current or increased cigarette and alcohol excise taxes to health
- require those wealthier individuals in the currently exempt group to pay a premium similar to informal sector workers
- levy a onetime premium on members.

Figure 5.5 summarizes the pros and cons of increasing the VAT and SSNIT earmarks.

Figure 5.5: Increasing VAT and SSNIT earmarks

Increase the 2.5 Percentage Point VAT and/or SSNIT NHIS Earmarks

Advantages

- VAT accounts for 61 percent of 2009 NHIS revenues and SSNIT for another 16 percent.
- Increasing either through higher tax rates or in the case of SSNIT reallocating some of the remaining 16 percentage points from pensions to health could solve NHISs sustainability problem.
- As the VAT is very broad-based, relatively efficient, and equitable, it is an excellent candidate for revenue enhancements.

Disadvantages

- Revenue enhancements do little to deal with underlying inefficiencies in NHIS and the health system more generally.
- On policy grounds, pouring large amounts of new funds into an inefficient base system is not a recommended policy option.
- As the current VAT and SSNIT earmarks account for 5 percent of overall government tax revenues, MOFEP is likely to strongly resist further earmarking as it compromises their macroeconomic management flexibility.
- Increases in the SSNIT would likely have employment consequences in terms of reducing employment and further encouraging informality.
- Reallocation of the pension portion of the SSNIT to health is unlikely as the pension system is also in financial crisis.

Increasing the VAT or SSNIT earmarks either through a further increase in the VAT and/or SSNIT tax rates or simply reallocating additional percentage points to the health sector is likely to inhibit Government fiscal management by reducing the flexibility of the Government to reallocate funds among sectors. For the SSNIT increasing the tax and earmarking the additional revenues to health is likely to have adverse labor market/employment effects and quite possibly increase informality, while reallocation a higher percentage of current SSNIT revenues is highly unlikely given the weak financial position of the Social Security Pension Fund. Furthermore, current revenues earmarked to health from the VAT and SSNIT account for some 5 percent of total government tax revenues just for NHIS. How likely is it for the Government to be willing to earmark additional revenues from these sources and further inhibit its fiscal management flexibility? In addition from a policy perspective, does the government want to increase the already high level of cross subsidization from the SSNIT NHIS category of eligibles to all the other NHIS eligibility groups? On revenue generation (and possibly equity grounds) would it make more sense to use a broader-based tax?

Sin taxes such as excise taxes on alcohol and tobacco are a popular form of revenue generation both on externality (e.g., discouraging unhealthy behaviors which impose societal costs estimated by WHO as exceeding 10 percent of the global burden of disease) and revenue raising grounds as demand for these products is frequently inelastic. Figure 5.6 summarizes the pros and cons of increasing sin taxes.

Figure 5.6: Increase sin taxes

Earmark Revenues to NHIS from Increased Sin Taxes

Advantages

- Sin taxes such as excise taxes on alcohol and tobacco are a popular form of revenue generation both on externality (e.g., discouraging unhealthy behaviors which impose societal costs) and revenue raising grounds as demand for these products is inelastic.
- In Ghana both cigarette and alcohol consumption are low, and revenues from these excise taxes currently account for only some 1-2 percent of total tax revenues.
- However, it has been estimated that simplifying the rate structures and increasing tax rates could result in some 100 -150 million Cedis in additional revenues, on the order of one-third of current NHIS income.
- In addition they would reduce future health care costs and NHIS liabilities by discouraging consumption of products that lead to higher health risks and road accidents.

Disadvantages

- While sin tax increases are feasible and justifiable, it is unlikely that MOFEP will agree to further earmarking of revenues to NHIS.
- While cigarette and alcohol taxes over the medium term will reduce NHIS spending due to reductions in the BOD, they do little to deal with the base inefficiencies in NHIS structural features and Ghana health system.

As discussed above, in Ghana both cigarette and alcohol consumption are low, and revenues from these excise taxes currently account for only some 1-2 percent of total tax revenues. Tobacco tax rates are only about 29 percent relative to an Africa Average of 40 percent and a WHO AFRO recommendation of 70 percent⁷⁴. Similarly alcohol taxes and consumption are also low in Ghana, although as in the case of cigarettes there is a complex tiered rate structure.⁷⁵

Given the relatively small shares of the market, low tax rates, and the complex tiered rate structures, it would appear to be feasible to double revenues from these taxes, resulting in additional tax revenues of around 100 million new Ghana cedis or some one-third of NHIS income if all these increased revenues were earmarked to NHIS⁷⁶. In addition these tax hikes would reduce future health care costs and NHIS liabilities by discouraging consumption of products that lead to higher health risks and road accidents. While there is a vast well-known literature justifying such taxes and the situation in Ghana is favorable for increasing the rates (e.g., the market is probably too small to encourage major smuggling operations and prices are low in the country), earmarking these additional revenues to health faces many of the same fiscal management flexibility issues as further earmarks of the VAT and SSNIT. In any event the excise tax increases on these products is justifiable and such additional revenues could be a viable source of revenues for NHIS, if the GoG is willing to earmark these funds.

Premiums for Currently Exempt Groups with Ability to Pay

NHIS's fiscal situation is also challenged by the large percentage of its membership, 65 percent, that is comprised of non-paying exempt members. Some of these groups (e.g., pregnant women and indigent) are also exempt from paying the registration fee. Figure 5.7 summarizes the pros and cons of requiring premiums and/or removing the exemption status for those in the upper income quintiles in the exempt group.

⁷⁴ See WHO, *Ghana Report Card on the WHO Framework Convention on Tobacco Control* (2010).

⁷⁵ See WHO, *Global Status Report on Alcohol and Health* (2011) and WHO, *WHO Report on the Global Tobacco Epidemic, 2009: Implementing Smoke-Free Environments* (2009).

⁷⁶ See Stenberg, K., et al. (2010).

Figure 5.7: Require premiums from high income exempt individuals

Premiums for Non-Poor Exempt Groups

Advantages

- Of the some two-thirds of NHIS members who are exempt from premium payments, over 30 percent of these are in the top two wealth quintiles of the population and could afford to pay premiums.
- Charging them the minimal informal sector worker premium of 8 Cedis would have resulted in additional revenues to NHIS on the order of 25 million Cedis or some 7 percent of its 2008 income.
- It would also result in improved equity and better targeting of the NHIL toward the poor.

Disadvantages

- Charging such premiums would be politically unpopular.
- These groups might drop their coverage and refuse to enroll.
- It's not clear that the GoG and NHIS have effective tools for undertaking such targeting.

This obviously places a heavy financing burden on the NHIL and also necessitates large cross subsidies from other non-subsidized paying groups such as formal sector workers. Requiring some level of payment from this group makes sense on both sustainability and equity grounds, given current resource constraints, *ceteris paribus*. For children below 18 and those 70 and above, who account for about 80 percent of all NHIS exempt individuals, very rough estimates from the 2008 Monitoring and Evaluation Survey show that 46 per cent of these exempt individuals are in the upper two wealth quintiles of the population⁷⁷. Charging them the minimal informal sector worker premium of 8 new Ghana Cedis would have resulted in additional revenues to NHIS on the order of 25 million new Ghana Cedis or some 7 percent of its 2008 income. One perhaps slightly more politically acceptable permutation on this proposal could be to charge high income exempt individuals a higher registration fee as opposed to dropping their exemption status. The key operational issue here is whether NHIS has or could put in place the systems needed to be able to perform means testing, which is problematic in most countries including advanced economies.⁷⁸ Obviously NHIS would also need to carefully monitor the impact of this potential policy to assure that these groups do not disenroll.

A major policy option for increasing revenues that is very much in the Government's policy agenda, the public spotlight and NHIS's Annual Report is the establishment of a one-time premium for lifetime enrolment. While this policy has been widely discussed and debate in Ghana, what has been missing is a clear definition of exactly what is meant by a onetime premium.⁷⁹ For purposes of this analysis, we interpret the onetime premium to be a onetime payment for lifetime NHIS coverage. Figure 5.8 summarizes the pros and cons of this proposal.

⁷⁷ Under current arrangements children 18 and below are covered if both the parents are NHIS members. However, legislation is pending to drop the parent enrolment requirement.

⁷⁸ Given the regressivity of the informal sector premiums, it is important for NHIS to do a much better job enforcing its means testing for informal sector workers. It is not surprising that the premium is regressive if most enrollees pay near the minimum. Of course one also needs to consider the level of subsidy on the benefit side as well, an area requiring further analysis in order to get a complete picture of the net incidence.

⁷⁹ See Ghana CSR (2012) and Seddoh, A. et al. (2011), for discussions of both the ambiguity problem as well as the politics.

Figure 5.8: One-time premium

One Time Premium

Advantages

- Simplifies enrollment
- Reduces administrative costs
- Assures lifetime continuous coverage
- Brings in additional NHIS revenues in the short-run
- Potentially allows the NHIS to become a 'vested' sustainable system (i.e., if actuarially-based, its reserves would be adequate to pay for the future liabilities of its premium paying enrollees) as opposed to its current status as a pay as you go system (requiring annual appropriated or earmarked revenues).

Disadvantages

- Since an actuarially sound premium for a young person enrolling in NHIS should reflect his discounted expected future lifetime NHIS costs, the estimated premiums of 665 – 1200 Cedis would not be affordable for most enrollees, resulting in them dropping coverage.
- The one time premium violates the insurance element of risk pooling over the individual's life cycle by forcing upfront payment for all his lifetime health liabilities instead of spacing/smoothing payments and use over his lifecycle as in the case of medical savings accounts.
- Presently only some 29 percent of NHIS enrollees pay premiums (which only account for 3.8 percent of NHIS revenues), and if individuals don't enroll because they cannot afford the premium, both revenue generation and coverage would be limited.
- If the premium is heavily subsidized to encourage enrollment, there would then be a major future contingent liability on the NHIS necessitating financing from other sources and further compromising sustainability.

While all the details for the proposal have not been specified, it is likely that it would apply only to non-exempt groups, while SSNIT contributors would also likely not be affected as they would continue to contribute through the payroll tax. Thus, it would fall largely on informal sector workers and any others (SSNIT spouses) who are required to pay premiums. In its purest form, the proposal basically establishes a lifetime 'health annuity' with the NHIS for the policy-holder. For a onetime premium payment the individual receives lifetime coverage for the NHIS BBP.

The proposal has some advantages in terms of simplification of enrolment, assuring lifetime continuous coverage, bringing in additional NHIS revenues in the short-run, and allowing the NHIS to become a 'vested' system (i.e., if actuarially-based, its reserves would be adequate to pay for the future liabilities of its premium paying enrollees) as opposed to its current status as a pay as you go system (requiring annual appropriated or earmarked revenues). However, in terms of affordability, revenue raising capacity, and sustainability, the lifetime premium faces some serious practical and conceptual challenges.

First, in terms of affordability, an actuarially sound premium for a young person enrolling in NHIS should reflect his discounted expected future lifetime NHIS costs (i.e., 52 years of payments for an 18 year old informal sector worker). A recent actuarial report (Hendriks 2010) using three estimated premium level scenarios found the premium would have to be on the order of 665 – 1200 new Ghana Cedis. Even if the premium were subsidized by NHIS, few Ghanaians could afford such a premium. No major health insurance system funds its operations this way, and health annuities are largely unknown except for rare situations, where, for example in the U.S., a person citizen may sign over her/his assets to a nursing home in exchange for a guarantee of future lifetime care. Unless an individual has substantial assets, a lifetime health 'insurance' annuity would not be affordable unless the individual could spread the payments over his life cycle (as is the case in medical savings accounts). In this way the individual pools his health risks and payments over his lifecycle, building up his equity when he is young and has low risks and increasing income and draws down on his equity later in life when he has higher health risks and a lower income.

As few people could afford to pay the premium, many would simply not enroll. Moreover, presently only some 29 percent of NHIS enrollees pay premiums (which only account for 3.8 percent of NHIS revenues), and if individuals don't enroll because they cannot afford the premium, both revenue generation and coverage would be limited. Worse still, if as under the present situation, the premium is heavily subsidized to encourage enrolment, there would then be a major future contingent liability on the NHIS necessitating financing from other sources.

The other major problem with the lifetime premium is that it performs poorly on sustainability grounds. First, as just mentioned, if subsidized, it places a large difficult to predict future liability on the NHIS, threatening its financial sustainability. If this liability cannot be covered by earmarked sources or investment earnings, budgetary allocations will be needed to cover it. Second, if everyone enrolls, and the current exemption levels are maintained, there will be relatively few additional new enrollees each subsequent year, resulting in very limited future revenues.

Thus, despite the appeal of a single lifetime premium in terms of encouraging enrolment, reducing administrative costs, assuring continuity of coverage, and generating short-run revenues, the concept falls short on basic insurance/risk pooling, affordability, revenue raising, and sustainability grounds. Moreover as it will likely require significant NHIS subsidization, it will also create large future contingent cost liabilities. While premium contributions have the important advantage of spreading risks over the entire population as opposed to cost-sharing, which taxes only the sick when they use services, a lifetime premium is simply not a feasible mechanism to encourage enrolment, raise significant revenues or assure financial sustainability of the NHIS. It potentially creates more problems than it solves, and there are other more effective mechanisms to accomplish its purported goals.

Thus these different 'contribution' options all have strengths and weaknesses, but also need to be considered in the context of the existing institutional realities including current limited operational capabilities. While additional revenues will accrue to the NHIS from its earmarked funding sources as the economy grows, they will not be sufficient to sustain NHIS once its reserves are depleted in 2013. Given Ghana's low revenue effort, tax reforms hold the prospect of increasing the yields of the various tax bases including the VAT. On the other hand, given the current heavy earmarking of funds to the NHIS through the NHIL with the resultant rigidities this creates for macroeconomic management, it is questionable whether the GoG will consider earmarking additional VAT revenues to the NHIS. Given the weak financial situation of the social security pension fund, additional allocations from the SSNIT may not be likely. Obtaining increased revenues from sin taxes would appear to be a viable option on several grounds, but the overall revenue potential is low given low rates of alcohol and tobacco use, and the earmarking question remains. Making higher income exempt groups contribute appears to be a sensible option on equity and revenue generation grounds, although one needs to carefully explore its feasibility operationally and both the enrolment and political consequences. Lastly, the lifetime premium, while having certain advantages, is not likely to achieve its desired goals.

NHIS Expenditure

Eligibility

All individuals (except the military and police) are supposed to enroll in NHIS with certain groups exempt from premium or tax contributions and subsets of these exempt groups from the registration fee. Thus, while the law does mandate universal coverage there are three basic issues: (1) can Ghana afford universal coverage as NHIS is currently structured, (2) do the eligibility categories make sense, and (3) how is universal enrolment (as opposed to eligibility) assured? Whether Ghana can afford universal coverage depends on a large number of interrelated factors relating to the design of the program and the country's overall fiscal situation. There is no doubt that the GoG is committed to universal coverage, but can it:

- afford a BBP which covers 95% of the BOD
- maintain a policy of no cost-sharing and the consequent loss of revenues and the moral hazard/increased costs such a policy engenders
- operate the program efficiently without effective gatekeepers and referral systems
- use provider payment mechanisms which are not performance-based
- exempt from contributions large numbers of individuals who can afford to pay
- operate without fully automating its HMIS and relatedly having better quality assurance, fraud detection, financial, and provider certification systems

- have financing arrangements which are not actuarially sound
- reinsure DHMISs on an open-ended basis?

In other words if Ghana wants to provide universal coverage to everyone, it will need to carefully design all elements of the program to make the program equitable, efficient, affordable and sustainable, while producing the desired results in terms of health outcomes and financial protection. Alternatively, if resources are too tight, it could consider focusing the program only on the poor and near poor and reducing subsidies to better off groups who could buy private insurance or pay actuarially based premiums for NHIS coverage.

A second issue concerning eligibility is the definition and overlaps of the eligibility groups themselves. Many have argued that the definition of indigent is much too tight and should be revised. There are also issues with enrolment being individual vs family-based. Does it make sense for a spouse of a SSNIT member to pay the informal sector worker premium? Dealing with these issues could improve enrolment, simplify administration, and result in better equity.

A third issue pertains to the need to develop mechanisms so that all those eligible for coverage either voluntarily enroll or are automatically enrolled. Absent some fundamental changes adverse selection and low enrolments will continue. Many informal sector workers simply do not enroll either because they do not understand the value of insurance or because they are healthy and unlikely to use services. Moreover, NHIS needs to do a better job in terms of both its premium setting and means testing, given the regressive nature of these premiums. Similarly formal sector employers and employees may try to evade the costly 18.5 percent SSNIT (12 percent falls on the employer and 5.5 percent on the employee, of which 2.5 percentage points of the total contributions are earmarked for health) keeping what would otherwise be 'lost income' to the government. This phenomenon is well documented in Latin America, where high social security taxes have paradoxically led to increased labor force informality despite significant economic growth⁸⁰. Getting formal sector employers to enroll their employees is more a matter of tax compliance. Unfortunately informal sector employee 'voluntary' enrolment is a big problem in many countries. Classic solutions involve incentivizing enrolment though:

- use private and social marketing methods to increase enrolment (this would address the fact that understanding of health insurance is often a barrier to enrolment)
- design an attractive benefits package at affordable prices, and consider different benefit packages for different enrollee groups
- market the benefits to larger groups, such as through cooperatives
- market the product alongside complementary products such as microcredit.⁸¹

Nevertheless, getting informal sector workers to voluntarily enroll is a major problem in all countries, and adverse selection continues to be a problem even when premiums are highly subsidized. Thailand after attempting to encourage voluntary enrolments simply covered all informal sector workers and financed them through general revenues, not premiums, especially since many were near poor. Given the small share of revenue this group currently accounts for (some 3.8 per cent) and the likelihood that many of the remaining uninsured are part of this group and probably near poor, Ghana should consider a Thai type solution if the needed financing can be obtained through other revenue enhancements or gains in spending efficiency. Some or perhaps all of the costs may be offset thru more timely diagnosis and treatment.

BBP

The NHISs basic benefit package is quite extensive and is designed to cover 95 percent of the BOD. Moreover there is no cost-sharing. In addition NHIS faces the same issue that all HI funds face of coordinating its BBP with vertical

⁸⁰ Baeza, C. and Packard, T. (2006).

⁸¹ The World Bank, *Philippines Health Sector Review* (2011).

public health services financed and provided by the MOH. The extensiveness of the BBP could augur a future cost explosion as supply side constraints are relaxed and the health transition runs its course. All countries ration health services through supply side constraints, some deliberately (former FSU) and others because they simply cannot afford to and/or don't have the HRH capacity to scale up their health systems. However, for universal coverage to be a reality, program beneficiaries must have access to services. Moreover in order to provide those services effectively, they need to be paid for at no less than their efficient production costs. Thus the GoG must decide which services will be covered and accessible (i.e., supply side expansions) and develop mechanisms to encourage efficient production and consumption. While cost-effectiveness and financial protection criteria should be used to make these decisions, there are often difficult tradeoffs between these objectives. Can NHIS encourage efficient consumption in the absence of any cost-sharing and ineffective gatekeeper and referral systems? In addition to preventing moral hazard, cost sharing is an additional revenue source which can be equitable if the poor are exempted. Better harmonization with the MOH in terms of coordinating the BBP and vertical public health programs is essential, particularly given Ghana's relatively poor health outcome performance, as shown in a recent USAID study of large potential savings from better coordination of family planning services as well as a MBB study⁸².

Provider Payment

As shown above in Figure 5.1 various provider payment and cost containment reforms can lead to significant savings by improving efficiency. NHISs provider payment system is a mélange of supply side subsidies to public providers from the MOH in the form of wage and other operating subsidies coupled with NHIS reimbursements based on fee schedules and the 'G-DRG' system. Fee schedules for private providers are adjusted upward to reflect the absence of public subsidies. These payment systems were a good start in the movement toward strategic purchasing. Providers are now accustomed to output-oriented payment systems rather than fixed budgets. The uncapped fee-for-service approach, however, does not help the NHIS achieve any objectives related to efficiency, cost-effectiveness of service utilization, cost containment, quality improvement, or equity. Insurance systems in many countries are moving away from traditional fee-for-service payment models toward some combination of bundled payment, blended payment systems, managed care, and pay for performance.^{83,84} As discussed above, significant efficiency gains can be achieved by adopting state of the art pay for performance systems, which rely on gatekeepers and enforced referral systems. In this regard NHIS is piloting a primary care capitation model in Ashanti region in 2011, as well as other forms of results-based financing. A movement toward capitation may be the first step toward shifting reimbursement toward primary care and rewarding successful prevention efforts, as providers keep any surplus they generate from keeping their population healthy. The capitation pilot also will test the inclusion of basic primary care medicines in the capitated rate to begin to limit the unchecked pharmaceutical expenditures of the NHIS. The capitation pilot also is a first step toward better integrating service delivery, because providers are being encouraged to form groups to deliver the full range of services in the primary care package funded under capitation. These efforts are in their design stages and will require time to test and evaluate.

All payment systems have upsides and downsides and Ghana's challenge is to simultaneously employ the appropriate mix of methods to maximize access, macro and micro efficiency and quality. While it is likely that savings will materialize over the medium to long-term, upfront investments will be needed now. However, provider payment reforms are a more painless way to finance the system than eligibility changes, benefit cuts, and increasing contribution levels from individuals. If properly designed efficiency, access, and quality goals can be achieved simultaneously. Poorly designed policies will have the reverse effect.

⁸² Smith and Fairbank (2008) and Driss MBB Study.

⁸³ Rosenthal, M. (2008). "Beyond Pay for Performance—Emerging Models of Provider Payment Reform". *The New England Journal of Medicine* 359:12.

⁸⁴ Mechanic, R. and Altman, S. (2009). "Payment Reform Options: Episode Payment is a Good Place to Start". *Health Affairs* 28(2): w262-271.

Pharmaceuticals

While the pharmaceutical sector is analyzed in detail in a separate background report, NHIS is a key component of pharmaceutical sector policy. Pharmaceuticals account for some 50 percent of NHIS spending, and NHIS accounts for some 44 percent of all pharmaceutical spending in Ghana. NHIS coverage of pharmaceuticals has made medicines affordable to its enrollees and increased their financial protection as drugs are one of the biggest components of OOP. Therefore, policy changes in this area have critical implications for NHISs sustainability as well as its performance in terms of health outcomes and financial protection.

Among the NHISs problems highlighted are patients inappropriately being charged for medicines, fraud, overprescribing by providers, and irrational use and prescribing patterns. Better information and claims management systems, improved (risk-based) provider payment systems, copayments, review of NHISs drug list for medical appropriateness, and provider and consumer information policy changes are recommended. Reimbursement expenses for generic medicines could be lowered if providers could agree on a pooled purchasing mechanism with framework contracts with suppliers. Such a pooling strategy could also be used to ensure consistent quality of the medicines reimbursed by NHIS. It is estimated that fraudulent claims account for 5 percent of NHIS medicine claims (i.e., 2.5 percent of NHIS spending), and overprescribing/abuse accounts for about another 20 percent of medicine expenditures (i.e., 10 percent of NHIS spending). Thus reforms in this area could lead to both significant NHIS expenditure reductions and improved health outcomes.

Administrative Reform

There are numerous administrative changes highlighted above, in NHIS's own reports and in various other forums. Administrative changes are essential for NHIS to function efficiently as a modern insurer covering over 20 million individuals and to provide it with accurate information on its beneficiaries, providers, and services. Modernizing and automating HMIS nationally, within MOH and in NHIS and for providers is critical. Now that the DHMISs for all practical purposes are becoming 'branches' of the NHIS, it may be time to formally convert them into branches and consolidate claims payment and enrolment functions to maximize economies of scale and scope. This may require fundamental legal and regulatory changes, and there may be some short-term transition cost incurred in order to achieve the longer term savings.

While administrative issues are often far more tedious and often deal with operational, as opposed to the more sexy big picture structural issues, if NHIS wants to expand coverage, be an 'active purchaser' and be an effective regulator, it must upgrade its information systems and deal with these previously identified 'nuts and bolts' administrative issues:

- difficulty identifying indigents
- weak portability
- unreliable eligibility authentication at provider site
- weak control systems that provide a potential for fraud
- weak enforcement of gatekeeper system (referral system)
- high cost of administrative inefficiencies
- human capacity gaps
- issues of artificial indebtedness
- fragmented claims processing centers
- misapplication of approved tariffs
- prescribing and dispensing of unapproved medicines
- inefficient Medical Supply Chain System leading to high cost of medicines on NHIS Medicines List
- inability to effectively monitor service utilization and cost
- inability to gather timely data on disease patterns hampering decision making
- manual processing of claims leading to delayed claims payment

- potential for fraud by members, schemes and providers.⁸⁵

Next Steps for NHIS

NHIS has a large agenda. It must deal with both operational issues and structural reforms. It must improve its operational processes and information system in order to effectively serve its current client base and to expand coverage. It must have a modern HMIS and much better data for decision-making. Its mounting financial deficit is structural in nature and dealing with it is a matter of urgency. First and foremost is the need to get up to date actuarial information about the NHISs membership and solvency as well as costing various reform options. As these reform options span almost the full spectrum of NHISs structural composition and operational areas – eligibility criteria, BBP, contribution arrangements, provider payment, pharmaceuticals, etc., an extensive range of data and analyses will be needed (e.g., costing alternative BBPs, financing changes for exempt groups, potential revenue and utilization impacts of cost-sharing options, provider payment reforms, etc.). In parallel NHIS operational capabilities need to be upgraded. And most importantly one must not lose sight of what NHIS is trying to accomplish – improve health outcomes and provide significantly better financial protection in an equitable, efficient, and sustainable manner. Table 5.3 summarizes the reform areas and some of the options discussed above.

Table 5.3: Structural and operational reform areas and options

Structural Component	Option
Eligibility for Premium Subsidies and Enrollment Changes	Focus on the Poor Change the Eligibility Unit Incentives to Encourage Enrolment
BBP	Extensiveness Cost Sharing Coordination with Vertical Public Health Programs
Revenues	Increase the VAT Earmark Increase the SSNIT Contribution Sin Taxes Means Test Exempt Groups Levy a Onetime Premium on Members
Provider Payment Reforms	Implement payment systems that encourage efficiency, quality, cost-effective service utilization, and better coordination across the continuum of care. Options include the appropriate mix of capitation, other bundled payment systems, blended payment systems, various managed care approaches, and modern pay for performance systems
Pharmaceuticals	More rational reimbursement methods, including capitation for basic primary care medicines, bundling in G-DRG payments, reference pricing or other modern reimbursement methods Improve Information Systems and introduce incentives for rational use of medicines Update Drug List Based on Medical Appropriateness Criteria Reduce expenditure for generic medicines through pooled procurement Copayments

⁸⁵ Nyongator F., op. cit., WBI Ghana Case Study and Seddoh, A. et al., op. cit.

Consumer and Provider Education	
Administrative Reforms	Data for Decision-making HMIS Centralize Control Other Operational Reforms
Other HSS Reforms	Public Health Physical and Human Infrastructure Governance

The Transition to Universal Coverage

Clearly NHIS reforms do not take place in a vacuum and must be integrated into Ghana's overall health reform agenda. Structural and operational changes that are essential to ensure the viability and sustainability of the NHIS will take time. Serious reforms require up front investments, many outside the NHIS.

The GoG should make a commitment to investments and structural changes needed in the delivery system including sorting out NHIS direct payments to MOH/GHS. Given Ghana's relatively poor health outcomes public health needs to be fully addressed, and issues of coordination among vertical public health programs, other health-related sectors' programs, and the NHIS BBP should be given a high priority. Similar MOH/GHS efforts to expand delivery system capacity are critical given physical and human infrastructure access, maldistribution and quality concerns. Delivery system expansions will have major cost implications for NHIS irrespective of whether they are publically or privately financed. Overall systems governance needs to be improved in Ghana's complex decentralized structure. All these efforts also need to take place in the context of Ghana's future available fiscal space and other competing priorities.

Beyond political willingness, commitment, and ability, a sine qua non for an effective health reform is to put in place an accountable, culturally and politically sensitive, and effective process that holistically deals with the wide set of issues underlying any major health reform effort. As discussed above health financing cannot be viewed in isolation from all the other health system issues. This is particularly important given many of the identified weaknesses in the management, organization and underlying incentives of the entire health care delivery system including public health programs. If universal coverage is to be a reality in Ghana, NHIS enrollees must have 'effective access' to services when they need them, and these services must be both physically and financially accessible in addition to being medically appropriate and effective. This process must be informed by data and analysis.

Despite its new found LMIC status, donor partners are invested heavily in Ghana and its effective collaboration with the donor community augurs well for both support and an efficient collaborative participatory reform process. Election years are challenging times for all countries. However, this would be an ideal time to get the reform process established and moving, so that the needed analyses and policy options can be developed and costed. This will allow for the always difficult political decisions to be undertaken after the upcoming election and in sufficient time to avoid NHISs impending bankruptcy. Ghana's social experiment with universal health insurance funded largely through earmarked general revenues, social security taxes, and premiums is an important contribution to the wellbeing of its people and is very much on the radar screen of the global community.

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