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**A Health Sector in Transition to Universal Coverage in
Ghana**

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ABBREVIATION AND ACRONYMS

ACT	Artemisinin-based Combination Therapy
ADHA	Additional Duty Hours Allowance
ALOS	Average Length of Stay
ANC	Ante natal care
ARI	Acute Respiratory Infections
BOR	Bed Occupancy Rate
CAGD	Controller and Accountant General Department
CD	Communicable Diseases
CHAG	Christian Health Association of Ghana
CHPS	Community-based Health Planning and Service
CMS	Central Medical Stores
CPC	Claims Processing Center
DA	District Assembly
DACF	District Assembly Common Fund
DHA	District Health Administration
DHMT	District Health Management Team
DMHIS	District Mutual Health Insurance Schemes
DRG	Diagnosis Related Group
EML	Essential Medicines List
EmONC	Study on the National Assessment for Emergency Obstetric and Newborn Care.
FDA	Food and Drugs Administration
FDB	Food and Drugs Board
G-DRG	Ghana diagnostic related grouping
GDHS	Ghana Demographic Health Survey
GDP	Gross Domestic Product
GHS	Ghana Health Service
GLSS	Ghana Living Standards Survey
HIV/AIDS	Human immunodeficiency syndrome/ acquired immunodeficiency virus
HMIS	Health Management Information Systems
HRH	Human Resources for Health

HSMTDP	Health Sector Medium Term Development Plan
HW	Health Workers
IGF	Internally Generated Funds
IMF	International Monetary Fund
IMR	infant mortality rate
ITN	Insecticide Treated Net
LEAP	Livelihood Empowerment Against Poverty
LIC	Low Income Country
LMIC	Lower Middle Income Country
M&E	Monitoring and Evaluation
MBP	Mission-based providers
MDG	Millennium Development Goals
MICS	Multi-cluster survey
MMR	Maternal Mortality Ratio
MOFEP	Ministry of Finance and Economic Planning
MOH	Ministry of Health
NCD	Non Communicable Disease
NGO	Non-governmental organization
NHIA	National Health Insurance Authority
NHIF	National Health Insurance Fund
NHIS	National Health Insurance Scheme
OOP	Out of Pocket
PMTCT	Pregnant Mother to Child Transmission
PPP	Public-Private Partnership
RHA	Regional Health Administration
RHMT	Regional Health Management Team
SSA	Sub Saharan Africa
SSNIT	Social Security National Insurance Tax
TB	Tuberculosis
TFR	Total Fertility Rate
UNICEF	United Nations Children's Fund
VAT	Value Added Tax
VCT	voluntary counseling and testing
WHO	World Health Organization

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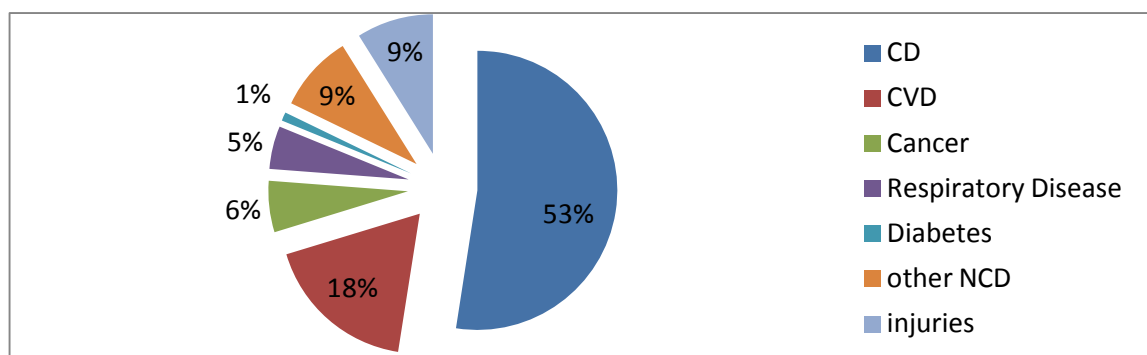
EXECUTIVE SUMMARY

Key Findings

What are Ghana's health, nutrition and population challenges as it continues its transition to universal health insurance coverage?

1. ***Ghana has come a long way in improving health outcomes and it performs reasonably well when compared to the other countries in Sub-saharan Africa (SSA). However, when its health outcomes are compared to other countries globally with similar incomes and health spending levels, its performance is more mixed.*** Ghana's health outcome performances, in terms of child health and maternal health, are worse than the levels found in other comparable lower middle income and health spending countries, but life expectancy is better.
2. ***Ghana's demographic profile is changing, and demographic, epidemiological, and nutrition transitions are well underway.*** The dependency ratio is expected to be favorably affected by the expanding large numbers of individuals entering the labor force, while fertility albeit still high continues to decline. It is the right time for Ghana to take advantage of this potential demographic dividend. Taking appropriate steps to improve employment opportunities is critical or else the country will face economic pressures as well as political unrest.
3. ***Unmet needs are high, and contraceptive prevalence is low.*** Efforts are required to sustain the momentum of a declining population. Families want the ability to space births or to have fewer children, but often do not have the means to control their pregnancy patterns. Better access to contraceptives would have multiple effects: it would positively affect the health of women, and it would give the opportunity for improved quality of life to children.
4. ***There is a funding shortage for public health goods.*** Many public health goods, such as immunization and family planning, are generally heavily subsidized, with tax or donor financing. However, Ghana has a low allocation of public funds to meet the demands for family planning commodities. The private sector has responded somewhat to this market failure by selling family planning commodities in private pharmacies, thereby increasing supply. However, many poor are unable to afford and therefore unable to access these commodities. The government has not come up with a feasible solution to provide improved access and affordability to its population.
5. ***Morbidity and mortality from communicable disease (CD) are highly prevalent in Ghana, and make up fifty three percent of the disease burden.*** Although, cost-effective interventions are offered, a significant proportion of morbidity and mortality is still CD related. There is a need to have a fresh look at programmatic aspects. Health Systems issues and challenges are a key bottleneck. A quick reduction in CD, would free up resources for new and emerging diseases and for improving quality of care.

Figure 1: Causes of Death patterns show increasing incidence from non-communicable diseases, 2008 estimates



6. ***Ghana is facing a dual disease burden from its demographic, epidemiological and nutrition transitions.*** Non-communicable diseases (NCD) are increasingly being reported among the adult population. There is a need to address the prevention of non-communicable diseases. There is a plan focusing on prevention aspects, however, there is no clear implementation strategy or sustainable financing, and little effort seen at district-level to extend the program on preventions and control of NCDs. NCD treatment is expensive, and there is need now to introduce NCD prevention and control programs, so that later the country does not face high expenditures from NCD treatment. Ghana has included within the NHIS benefits package, treatment of several (but not all) NCD.

7. ***In terms of Ghana's nutrition transition, while stunting and wasting are high, obesity is increasing among children.*** Poor nutrition either way (under- or over-nutrition) can be a factor resulting in acute health concerns. Among women, obesity is becoming a growing urban concern, and can lead to chronic health problems, such as diabetes, or hypertension. These effects can be mitigated if Ghana steps up efforts, through community-based behavioral change related interventions.

What are some health systems challenges?

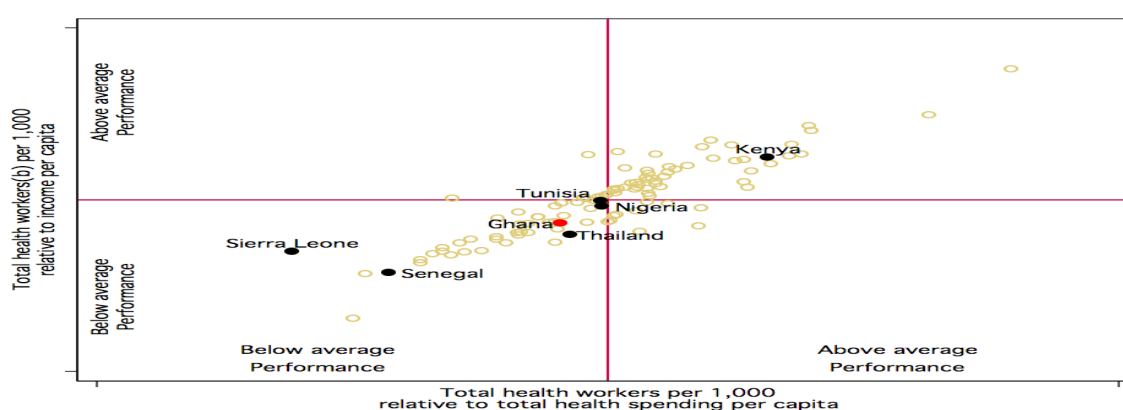
8. ***Ghana has a well developed health system, but faces some critical bottlenecks.*** While policies and plans are in place, and some innovative reforms are underway, in some cases, standards have not been determined and in some cases implementation is weak and variable along geographical lines. While in many cases quantity and therefore access has increased, quality of care remains problematic.

9. ***Capital investments are increasing; however, investments have not followed needs- or equity-based principles.*** Capital investments for hospital construction have increased in recent times. But, the same consideration has not been the case for investments in Community-based Health Planning and Services (CHPS) or primary health care clinics, investments for both being below target. Capital investments on hospitals are based on administrative levels (regions, districts) rather than on needs-based standards. Further planning for the location of these hospitals has been poorly coordinated with the non-public sector. We find several districts have multiple hospitals, and several districts have none. We also find a shortage of lower level health facilities. Sub-district level health centers also face shortages of equipment. Recurrent budget needs for capital investment maintenance are inadequately addressed.

10. ***Access to health workers has improved overall, although the distribution is skewed in favor of urban over rural areas and in favor of hospitals over clinics, which results in inequities in access.*** Recruitment of health workers (HWs), and especially of physicians, remains a challenge, given the earlier emigration trend, and as production of physicians is low relative to the country's needs. Shortages are also being felt for midwives. As these HWs age, and new recruitment is low, many lower level facilities,

including CHPS face shortages. Retention of HWs, especially in rural and remote areas and in the Northern regions, has been a real challenge. The government has offered several incentive packages, including housing, additional allowances, career opportunities, etc.; however, it still faces shortages outside the larger cities. When it comes to nurses/midwives, we find that pre-service training institutions are more widely distributed in the country, and we find a more egalitarian distribution of these cadres. However, pre-service training for physicians is concentrated in a few cities. The government is setting-up training grounds for physicians in regions and districts, in addition to at tertiary teaching hospitals. The human resource challenge cannot be addressed easily as it needs to deal with a complex system, starting from where students are recruited, where they are trained, where they are deployed, how they are motivated, and what systems are in place to ensure appropriate supervision, skills development, and accreditation.

Figure 2: Ghana has fewer overall health workers as compared to other countries with similar incomes and health spending levels, 2009

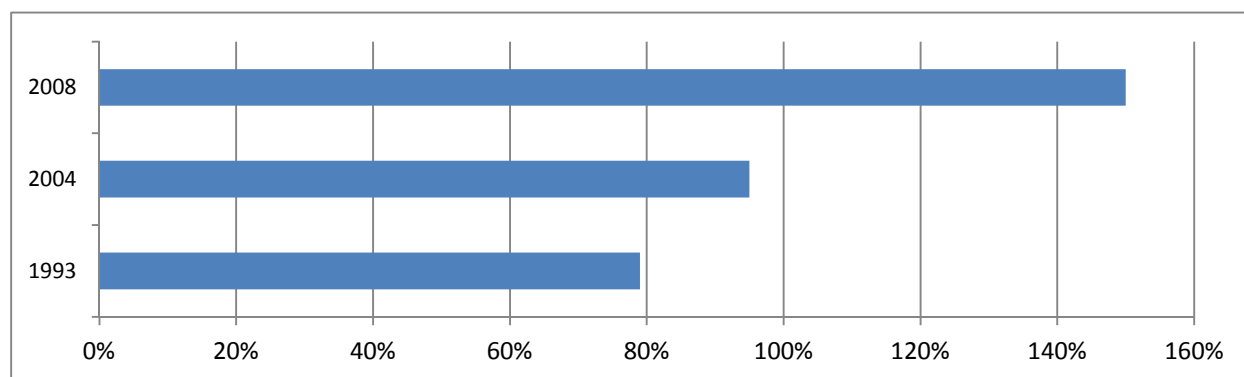


11. ***Quality of care and HWs competencies and productivity are rated as low, and deter patient access.*** While absenteeism is modest, attitudes towards clients are poor, and motivation low. The government increased salaries to improve worker productivity; however, it is uncertain that such a result was achieved. We find many HWs not performing up to standard, and we find this to be particularly the situation of those HWs providing services to rural areas, to the poor, and particularly to the Northern region. The competencies of private providers were seen to be worse than the public providers.

12. ***Access to drugs has improved in both public and private facilities, although drug prices are high and create cost inefficiencies.*** Improved access is expected to be a result of the Ministry of Health's (MOH's) policy for districts and health facilities to retain internally generated funds (IGF) and the flexibility to use IGF for procurement of drugs. It is also expected to have benefited from drug cost reimbursements by the National Health Insurance Scheme (NHIS). Further, providers still rely on the public system (central medical stores) for procuring several of the public health goods, which also benefit from economies of scale. However, as smaller packages of treatment drugs are being procured at a time by decentralized levels (as no pooling is encouraged at regional or multi-regional levels), higher prices are the result. Drug prices in Ghana are on average 4-5 times more than international reference pricing, and have been growing since the past decade. This is costly to the system, as about half of all NHIS claims payments goes towards paying for drugs. Also, the NHIS provider payment mechanism (fee-for-service without copayments) encourages providers to subscribe more medicines than may be required. It also encourages consumers to demand more medicines than required. Recently, NHIS standardized medicine prices (at median market prices). Given that less than half of Ghana's population is covered under any insurance, as many as half are paying for health care out-of-pocket (OOP), and are expected to pay at or

above market prices. Screening and discriminatory selection may be practiced in prescribing medicines and in prescription prices. Further, the variability in quality of drugs is a concern, given the various agents that the drugs are being procured from with few quality controls being administered by the Food and Drugs Administration (FDA), or any other quality assurance mechanisms.

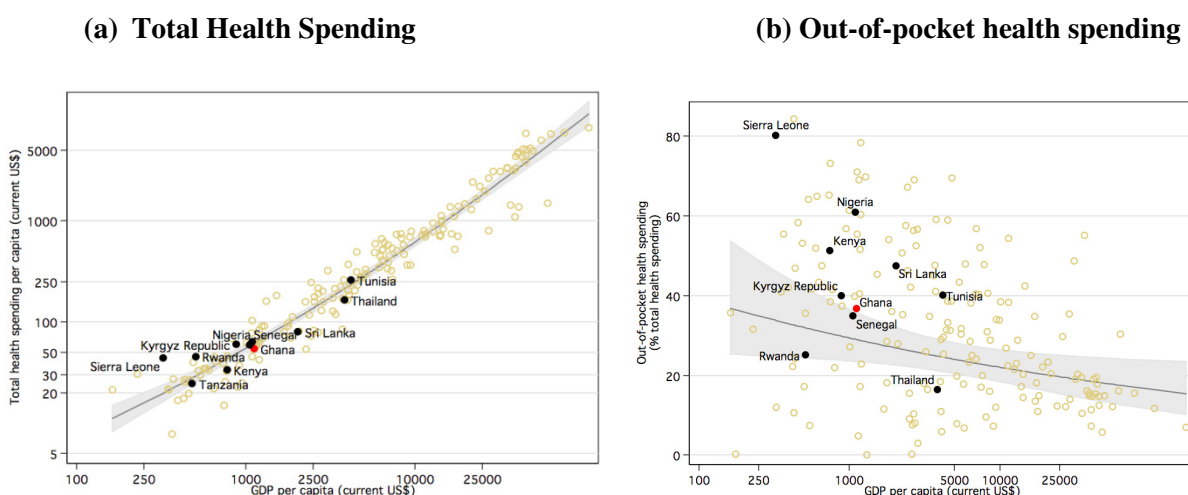
Figure 3: Average public sector procured prices as compared to international reference pricing (1993-2008)



How is Ghana fairing in the use of public resources for health?

13. *Total per capita expenditures on health are not excessive and the public sector is increasing its share, while the health cost burden on households is declining, although still high by WHO standards.* Overall, Ghana has improved its health outcomes, but has not achieved the health outcomes on average found in comparable income and health spending – lower middle income countries (LMICs) globally. The effectiveness in the use of its funds needs to be further evaluated. Where is Ghana spending its resources, and who are benefiting from it?

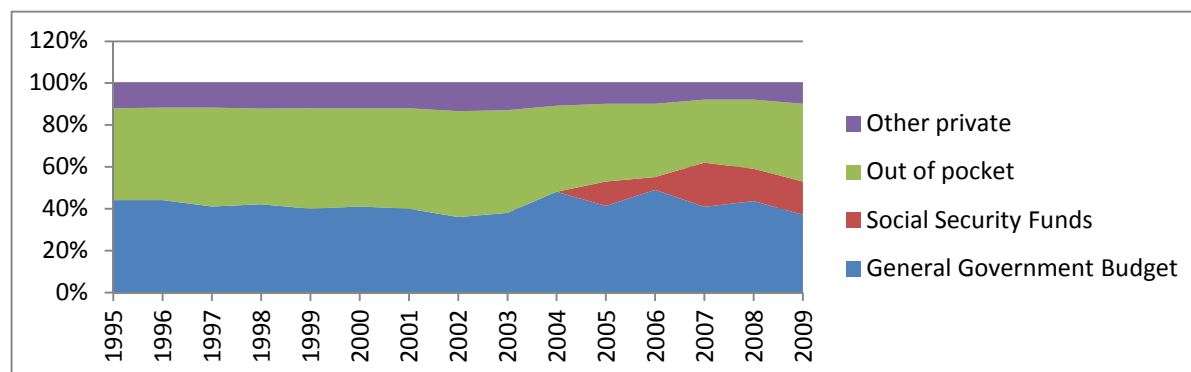
Figure 4: Per capita health spending compared to countries with similar incomes, 2009



14. *The public sector has diversified its sources of financing, but more could be done to improve the efficiency in use of these funds.* The sector receives funds from general taxes, earmarked taxes, OOP,

and donor funding. The public sector accounts for 53% of total health spending; and NHIS accounts for 30% of public health spending (2009). NHIS is funded largely through earmarked taxes (value added taxes [VAT] and levies), through the Social Security and National Insurance Trust (SSNIT) contributions and through premiums/OOP. This has not only provided more consistency in financing the non-salary recurrent spending, but has also increased public spending in health. District governments do have their own District Assembly Common Funds (DAF) but resources allocated for health from DAF are low and variable across districts. The Abuja target of 15% from government budgets has however not been met.

Figure 5: Total Health Spending shares (1995-2009)

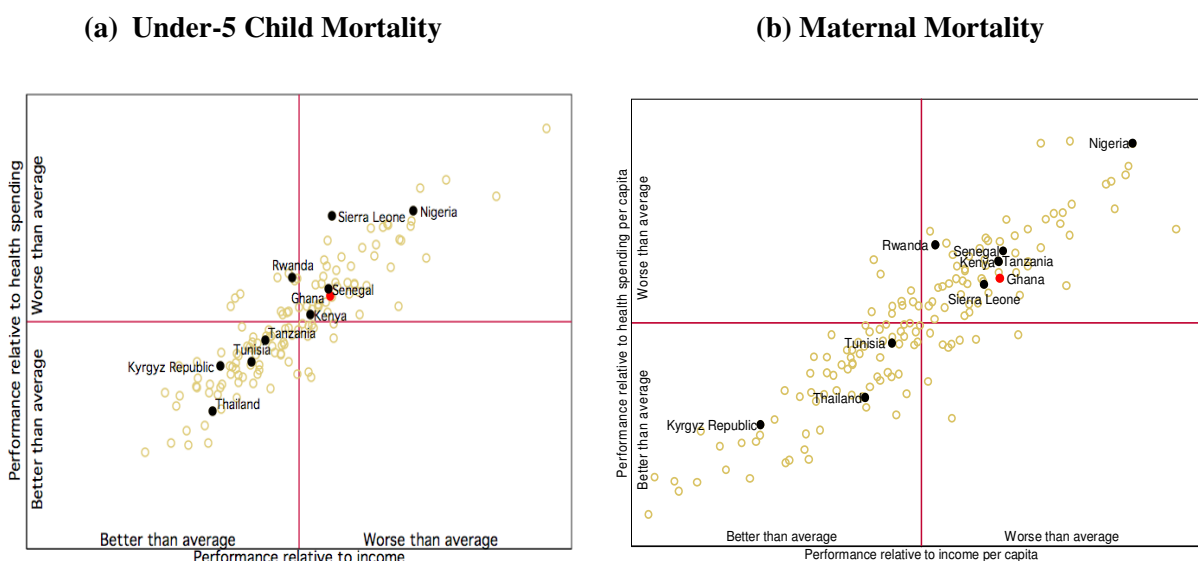


15. *The public sector has moved towards demand-side financing, but its sustainability is threatened.* With the introduction of NHIS, the government instituted better accountability by assuring significant public funding for needy groups and separation of providers from payers. To ensure affordability to care, NHIS has heavily subsidized vulnerable populations. It also set up accreditation to ensure improved quality standards were maintained. However, the benefits package is quite comprehensive, and public health spending on claims has gone up substantially. The sustainability of the NHIS program is at risk, and needs to be urgently attended to.

What are the population's health outcomes, access to and use of services?

16. *Of the four health-related Millennium Development Goals (MDGs), most are unlikely to be met.* Child nutrition is partly on track, and while child health has improved significantly, it is still not on track. While the two health-related MDGs are not likely to be achieved (maternal health and communicable disease control) by 2015. There is a particular need to address the latter. Ghana has developed a maternal health MDG acceleration plan, and is critically assessing the situation for emergency obstetric and neonatal care. Finances are being mobilized to move the agenda to reduce poor outcomes. Improved public health consideration is critical.

Figure 6: Global comparisons of mortalities relative to income and spending, 2009

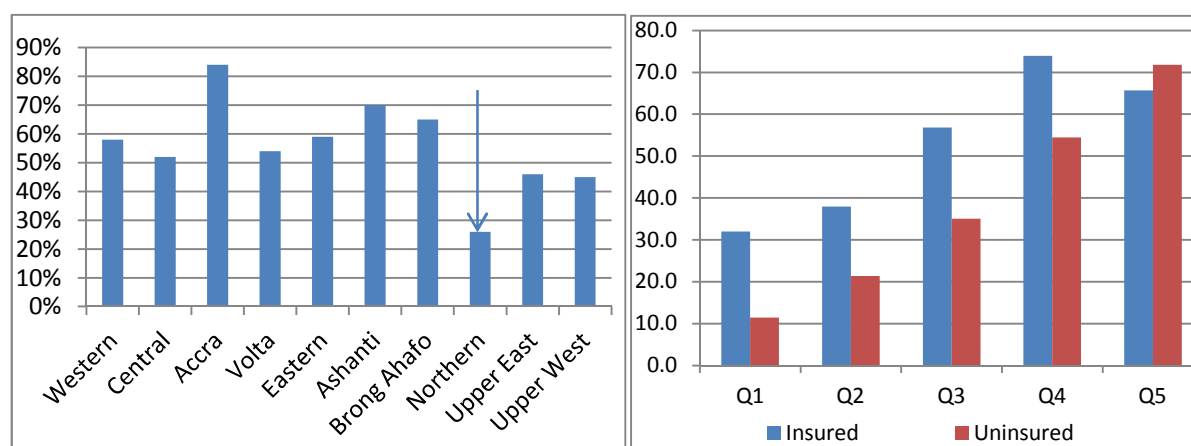


17. ***The Ghanaians are using more health services now than they had in the past.*** There is better access to health services geographically and financially. This results from: higher per capita income, increased access to risk pooling schemes, and increased access to private health facilities. However, wide disparities exist in health outcomes and in health access and use. We find that use of services is lower by the poor than by the non-poor.

18. ***The population uses public and non-public health facilities equally;*** however, in the past decade there has been a slight change in that patients are starting to rely more on private facilities. This may have to do with the MOH policies: (a) to expand access to services through partnership with the Christian Health Association of Ghana (CHAG)/mission, as many of their facilities are also located in rural and remote areas; and (b) the introduction of NHIS and the accreditation of public and private facilities have also opened doors for NHIS beneficiaries, who can access free services at any accredited health facility, whether it is public and/or private. NHIS beneficiaries have expressed satisfaction with respect to the quality of health services.

19. ***We find inequities, in that many public sector services are not used as much by the poor,*** as by the non-poor. For example, most women from poorer households delivered at home, while the public facilities were primarily used by the non-poor. Thus, there is a concern that the benefit incidence of public sector spending on health is regressive. However, our finding shows that when the poor have insurance, they are likely to use a health facility than an uninsured poor individual, and they are likely to choose public over private health facilities. This finding therefore indicates that NHIS could have a positive effect, in that the benefits from public funds could be more progressive for the poor when they are registered under NHIS.

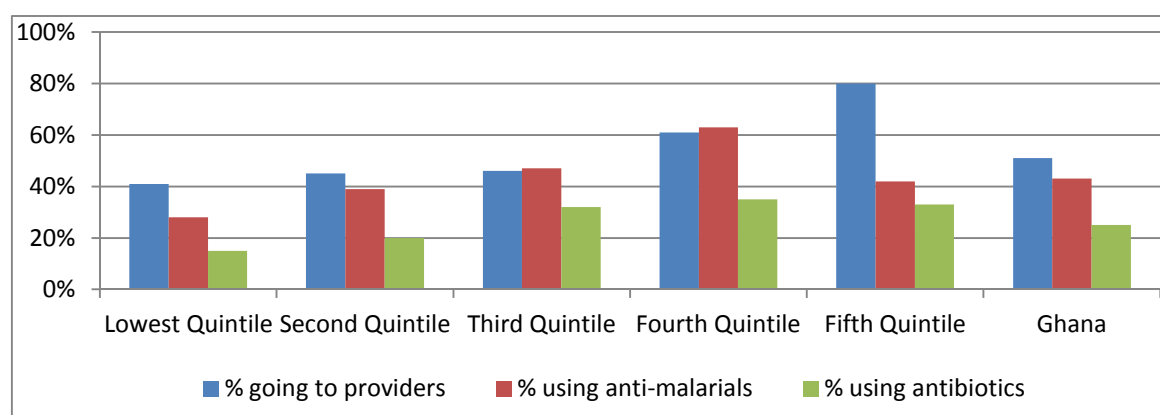
Figure 7: Regional and Income differential in institutional delivery, 2008



20. *The quality of health services has been a concern overall, though it is seen to be worse in rural areas and in certain regions.* Most households go to a health facility which has the presence of skilled HWs, offers drugs, and has laboratory services. However, some public facilities could not offer this package of services, at least not at the sub-district level, and so patients' by-pass clinics to go to district or regional hospitals for consultations. This is costly, as hospitals have higher overheads.

21. *We also find that the types of services used by the poor are of relatively lower quality.* The quality of services offered in rural areas, in urban slums, in certain regions where the poor are concentrated, is lower than the service quality in urban areas and in some more well-off regions. Therefore it will be a difficult challenge to improve overall health outcomes in the country, unless health systems challenges are addressed in some urgency.

Figure 8: Income differences in children under-5 with fever and seeking care, 2008



22. *We find inefficiency in targeting, in that some public programs directed at the poor are reaching the poor, while others are not.* The malaria prevention and control program is well targeted: insecticide-treated mosquito nets (ITN) distributed by the government actually reach poorer households. However, we find that knowledge on appropriate care is not as high among the poorer households, and they are more influenced by cultural barriers, and by geographical and financial access constraints.

23. *However, public resources could be more efficiently spent.* Many direct sector investments as well as spending through the NHIS do not provide good value for money. The population is unable to

access health care closer to them. Patients are by-passing clinics in favor of hospitals, as clinics may not have HWs and other amenities. More outpatient care consultations are at hospitals than at clinics, and this too is costly to the system, as per capita costs at hospitals are higher, and inappropriate use congests the system and diverts resources from patients needing hospital care. Patients are by-passing district hospitals in favor of regional hospitals, as districts may not have specialist HWs or services. Per capita spending at district hospitals is therefore higher than for example at regional hospitals, as the former are under-utilized. This also results in fewer patients able to access health care in a timely manner, as travel time and costs can be considerable. Further, financing of prevention and curative care are fragmented: one controlled under MOH and the other under NHIS. Current payment mechanisms, one being input-based through budgets, and the other being ex-post fee for service, result in a system with few incentives to promote preventive over curative services.

Is the population financially protected against illness costs?

24. ***Less than half of Ghana's population belongs to some risk pooling scheme.*** Ghana offers a few risk pooling schemes, and the public scheme – NHIS -- is where a significant part of the population is enrolled. Private schemes are mostly private commercial schemes and enroll a very small group. NHIS is a public scheme which covers vulnerable population groups, formal sector workers and is also a voluntary scheme for informal sector workers. Encouraging informal sector workers to join despite subsidized premiums has been problematic. In addition, although NHIS subsidizes the enrollment of a significant “vulnerable” population identified primarily through demographic grouping, there is a disproportionate registration in favor of the non-poor.

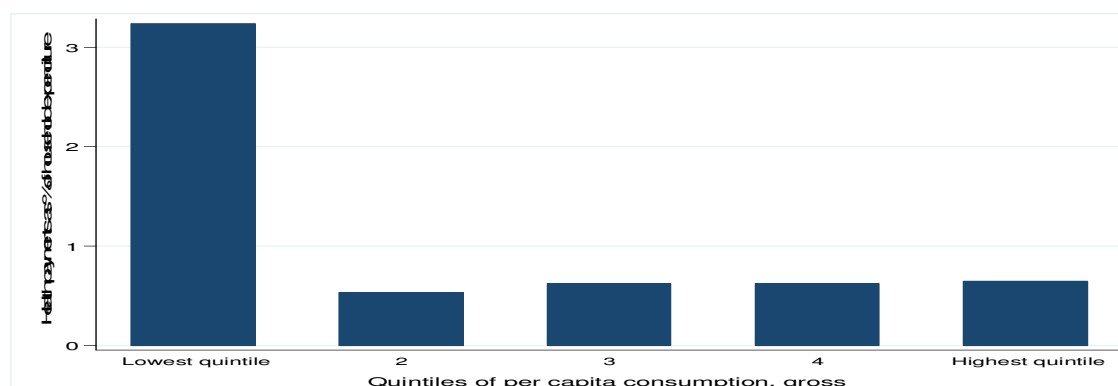
25. ***Relatively fewer poor are registered under NHIS, despite NHIS's mandate to focus on the vulnerable.*** The reason for this is because a new common targeting approach is just now being introduced in Ghana, and the poor have not been identified for easy registration. Also, under the NHIS exemption category, “indigents” are defined very narrowly, and this could be broadened to allow the poor to be subsidized under the program. Fewer poor therefore benefit from NHIS financing. NHIS is mostly financed through the national value added tax (VAT) and the SSNIT, which are largely progressive; however, coverage is disproportionately reaching the non-poor.

Figure 9: NHIS coverage by gender and income quintile, 2008

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%

26. ***We find that the poor could be better protected against catastrophic illness costs.*** The poor are more likely to underutilize health services, and more likely to have poorer health outcomes relative to the non-poor. They are also more likely to have higher household spending on health, and be adversely affected when they incur catastrophic spending relative to the non-poor. The poor are therefore at greater risk of not having adequate financial protection. These data are from 2005/06 and concurrent with the introduction of NHIS; however, much more recent household data are needed to show how the situation has changed since NHIS was introduced.

Figure 10: Household spending on health by consumption quintile, 2005/2006



27. ***Public resources could be more equitably spent.*** Many services covered under public funds are accessed by the non-poor. Relatively, more public monies are spent for hospitals and for curative care than for primary and cost-effective care, both of the former heavily cater to the health needs of the non-poor. Also, more non-poor receive subsidies for registration under NHIS than the poor and more of the non-poor use public facilities than the poor. Public monies do not seem to be allocated equitably, as the Northern region with the worst health outcomes also receives the lowest per capita public expenditure for health. There is no equalization fund or equity based allocation formula in the use of central government resources.

What are the next steps for Ghana?

28. ***Looking at the overall situation in Ghana, the government has taken critical steps to strengthen its health system.*** It has set up regulatory institutions, set up policies and standards to guide health service delivery; it has attempted to improve equity in access to health care by forming partnerships with the non-public sector and by supporting community-based initiatives, such as CHPS. It has moved towards universal health coverage and demand-side financing to improve affordability to health care, and has agreed to subsidize health care for its population, especially for the vulnerable. It has attempted to build more accountability in the system, by setting up accreditation and by mandating auditing and reporting; and it has attempted to improve efficiency of how resources are used by investing in public goods and by focusing on pro-poor health conditions.

29. ***Having undertaken all this, what are the next steps for Ghana?*** Although, significant funds are being spent in the health sector, spending effectiveness can surely be improved with rational planning and resource allocation towards goods and services that improve population health status and are pro-poor. As CD is still high, public health remains an important priority for Ghana. Strategies should continue to support behavioral change initiatives and to promote the preventive and promotion aspects of health care. Innovative strategies, such as conditional cash transfer programs, could be considered. Further effort is required to improve quality of care and to improve the equity in quality of care. For this to happen, incentivizing improved performance is needed in order to get results.

30. ***Reduce fragmentation in the financing of public health.*** Although the MOH has separated provider payer functions and agencies responsible for it, it continues to directly finance some services. The MOH has retained financing for preventive services and for public health goods (vaccines, drugs, commodities), resources for which are provided within budgets from general taxes and external financing. NHIS retains financing for curative services and for drugs, and reimburses providers. There is little thought behind incentivizing cost-effective interventions and quality of care. Both the payment systems

(MOH and NHIS) have different incentives. There are various options on how to deal with this problem: (a) MOH retains financing for preventive and public health goods, however, NHIS incentivizes (e.g. through performance based payments) providers in providing preventive over curative care, or (b) MOH pools financing for preventive and curative care under the NHIS Fund, and NHIS includes this within its benefit package and incentivize providers to offer preventive over curative care. These options could create the right incentives for providers and consumers to demand preventive over curative care.

31. ***Incentivize providers and consumers of health care to help meet MDG targets.*** Ghana would benefit if their publically financed programs are targeted on programs that disproportionately benefit the poor and vulnerable more than the non-poor, and target CD, public health programs, public goods, and cost-effective interventions at community, clinics and primary referral networks. Performance based incentives (e.g. results based financing) to providers and supervisors could create the appropriate financial incentives to focus on MDG, prevention, and to focus on quality of care. Further, incentives (e.g. conditional cash transfers) can also be offered to consumers to improve use of MDG, preventive services and to access appropriate care in a timely manner.

32. ***Incentivize HWs to move to other venues than hospitals and urban centers.*** A huge challenge is the mal-distribution of HWs. Not only are there shortages of certain cadres of HWs, but there is a skewed distribution of HWs in favor of urban areas and in favor of hospitals. There is a need to evaluate and learn lessons from other incentive schemes that have been offered in the country. What additional incentives could be offered?

33. ***Incentivize HWs to improve productivity.*** The government has offered salary increases with the aim to improve productivity; however, there have hardly been any evaluations of this intervention. There is evidence that input-based payments with no performance agreements will not change behaviors. One option is to test a modality of results-based financing to incentivize improved productivity.

34. ***Ensure improved quality of care.*** There are several mechanisms that can be employed: licensing and accreditation are ex-ante mechanisms, while performance-based incentives are an ex-post mechanism. NHIS accreditation is one means to ensure this; however, a performance based standard needs to be adopted by the accreditation program. Provider payment mechanisms/results based financing can also be used to incentivize improved performance for care.

35. ***Use equity principles to guide the allocation of funds to the regions.*** The formula used for MOH allocations of resources by regions/districts seems to be influenced by hospitals rather than by health outcomes or gaps or needs. There is no equalization or equity based formula for fund allocation. For example, the Northern region with the worst health outcomes also receives the lowest per capita health allocations from MOH. There is a need to re-consider the formula for central to district allocations.

36. ***Base public spending on rationalization and efficiency principles.*** Capital investments are skewed, medical equipment is lacking, and many vehicles are outdated and non-functional. Reforms in this area can be costly investments; however, given that efficiency gains can be realized from a better rationalization of capital investments, it may be best to first go that route. Ghana would benefit if it focused on ways and means to reduce inefficiency in the current health system through rationalization of investments (e.g. hospitals versus CHPS), decentralization, pooling, improved standards, administrative processes, and monitoring among others.

37. ***Reprioritize health spending.*** Given the macroeconomic situation, Ghana should consider ways and means to improve its efficiency in spending. There are several avenues that Ghana can take to improve efficiency, one of which is to reconsider the extensive NHIS benefit package of services. The country has a dual burden of disease but its spending patterns suggest that not much is provided to

improve the quality of primary health care services. Primary health care is not equitably distributed, and health personnel are heavily concentrated in hospitals over clinics and in cities and towns over rural areas. Much can be done to improve the quality of services offered at the health centers, the first line of health care. In the current situation under the NHIS, the health benefits package and payments create incentives among providers to promote curative over preventive care. Appropriate cost containment measures are not in place, and moral hazard and supplier induced demand prevail. Drug costs are exorbitantly high, and much above international reference pricing. Ghana can gain much in efficiency by putting appropriate measures in these areas in place.

38. ***Reduce moral hazard.*** The provider payment system, and the lack of co-payments, results in moral hazard – patients using unnecessary services. The introduction of co-payments, or reimbursement ceilings could help reduce such behaviors.

39. ***Reduce supplier-induced demand.*** The fee for service payment system often leads providers to prescribe additional services and/or drugs. This can be wasteful and lead to cost-inefficiencies. A review of the G-DRG and fee for service drug reimbursement program and their resulting health service use, can inform about these adverse behaviors. The provider payment mechanism may have also reinforced the provision of curative over preventive care, as NHIS reimbursements are strictly for curative care. This has led to fragmentation in the delivery system.

40. ***Improve risk pooling.*** Many informal sector workers are in good health and have the financial means, but are not enrolling into NHIS (adverse selection). Having them enroll into the NHIS can diversity risk pool even further. To encourage their enrollment into NHIS, incentives could be offered, such as reduced fees for pooled enrollment. Further the poor are not benefiting from NHIS. The common targeting approach, when scaled up, can help identify the poor and enroll them. Meanwhile, the district mutual health insurance scheme (DMHIS) agents could be offered incentives to seek the poor/indigents and to enroll them into NHIS. The benefits from NHIS can be progressive, as long as it subsidizes health care for the poor and the vulnerable through effective targeting. Given the huge investment Ghana has made on a functioning NHIS, it is likely to continue to support this initiative. However, immediate attention is required to improve risk pooling by enrolling the poor and the informal sector workers in particular.

41. ***Increase public revenue from sources that are progressive.*** Ghana is looking at various options to increase revenue. It is critical to consider those sources whereby the higher income groups are contributing more than the lower income groups. The VAT in Ghana is seen as a progressive tax. Premiums in many cases are seen as regressive unless they are income related. It also should be kept in mind that revenue enhancements, except for cost-sharing, do little to improve the efficiency of spending, and that increased spending needs to be accompanied by improvements in both the allocative and technical efficiency of the system.

42. ***Ensure public and social accountability.*** At present accountability remains weak in the health sector. There is limited reporting and assessment of expenditures. There is limited reporting on health service indicators, including on beneficiaries' profiles of use and quality of care. Further, civil society has little information on public sector activities. Mechanisms could be developed to ensure improved accountability, such as contractual agreements between purchaser and provider and payments based on results/performance/reporting. Civil society could be engaged in planning and in monitoring and evaluation. Information could be widely disseminated through websites and *darbars*.

43. ***Improve access to reliable information for decision making.*** Little information is available on the private sector in quantity and quality of care. Comprehensive planning and decision making requires comprehensive information. There is need to integrate the private sector in reporting, in planning and in

monitoring. There is need to incentivize the private sector to be engaged in timely and reliable reporting. The provider/private sector associations could be a good source to coordinate this effort.

44. *At this stage of its development, and taking the agenda for reform to the next level, the Government of Ghana could embark on significant reforms in the areas of (a) decentralization and governance, (b) health service delivery, (c) public health, and (d) health financing. Further it should set up a holistic and accountable health reform process as it transitions to universal coverage along with its concomitant service delivery, public health, and governance reforms.*

Table 1: Structural Reform Areas and Options

Structural Component	Options
Decentralization and Governance	
Decentralization	Policy & Legal Framework – Clearer policy framework required in health, on either moving the agenda to support devolution, and/or to stay with the current modality of decentralization through delegation and deconcentration. What is to be devolved and what not? – Develop one legal framework for health systems decentralization. – Strengthen capacity for monitoring and evaluation at central and regional levels, to provide oversight and support to district levels.
	Financing Framework – Clearer financing framework in health, with greater accountability: by adopting some of the mechanisms in place, such as DACF to consolidate the various funds and flows, integrated planning and budgeting processes, integrated M&E, and developing equalization/equity formula, and performance based financing mechanisms. – Local authorities could be given more control over budget/expenditure because most of their resources are actually executed centrally or earmarked from the center to specific programs or initiatives.
	HR Roles & Functions – Clearer staff role and functions, and lines of authority, including with District Assemblies and District Health Management Teams
Private Sector	Policy & Regulatory Framework – Private Sector Policy to be refined or bring within the context of where PPP engagement can be realized in the health sector (service delivery, procurement, supply chain, pre-service training, etc); where the appropriate regulatory environment is created and incentives are offered for private sector engagement to support the public sector agenda.
	HR Roles & Functions – Review and strengthen regulatory capacity for licensing and accreditation. – Strengthen capacity of the private sector unit at MOH with better collaboration and coordination with MOFEP and the National Planning Commission.
	Coordination & Partnerships – Provide oversight and coordination role on some of the following activities: (i) work with MOFEP on issues of better access to credit for the private sector in health; (ii) work with NHIA to move the agenda for accreditation of private sector. – Form partnerships with private sector (e.g. through PPP) in various areas, as has so far been done with CHAG on service delivery; there may be other opportunities for (contracting in/contracting out) certain services

	such as laboratory services, BOT, procurement, transportation, leasing equipment, etc.
Health Service Delivery	
Physical capital: infrastructure, medical and ICT equipment and vehicles	<u>Infrastructure</u> Policy -Set infrastructure policy, standards and guidelines, using equity and efficiency principles. HR Roles & Functions - Reorganize the Infrastructure dept (BEU) at MOH. Planning & Coordination - Improve planning through coordination mechanisms for new infrastructure with the public and non-public sector. - Plan and implement construction with appropriate budgets for capital investments and for recurrent budgets, to assure completion and functionality. - Improve recurrent budgets in parallel to allow for HRH, equipment and building depreciation/maintenance <u>Medical:</u> Regulatory Framework - Develop a regulatory framework for equipment management Standards, Inventory & Monitoring - Develop a medical equipment list for all health facilities and use it in NHIS accreditation standards, licensing and such - Regularly check on inventory, and plan replacement of outdated or aged medical equipment, with appropriate planned budgets for its replacement. - Provide recurrent budgets for medical equipment maintenance and reagents. <u>ICT:</u> Regulatory Framework - Develop a HMIS framework for the health sector Standards, Inventory & Monitoring - Develop ICT needs assessment, including electronic, mobile and others - Develop health data dictionary - Review and upgrade hospital HMIS - Review and upgrade district level HMIS <u>Transport</u> Policy - Refine and develop an integrated Transport Management System Policy for MOH and its agencies that would reduce duplication and inefficiencies and provide greater equity. Partnerships & Coordination - Review the current private sector engagement (in terms of affordability, efficiency and effectiveness), and consider the options to work with the private sector for delivery, and/or maintenance services
Human Resources for Health	Policy & Standards - Refine HRH Policy Framework and 5-year plans - Refine/develop the HRH Education Policy Framework (jointly between MOH and Ministry of Education) Accountability - Pilot test incentives schemes and evaluate their outcomes, before scaling up, - Consider financial and non-financial incentives - Develop performance contracts and improve accountability Partnership & Monitoring - Develop plans for upgrading skills of the District Health Management Teams - Develop plans for skills enhancement and/or recruitment of appropriate non-clinical staffing in the areas of management, accounting, epidemiology, M&E, ICT, and project management - Engage in dialogue with the private sector in the area of provision of education, delivery of services, and management of districts programs Develop an HRH database which regularly monitors and updates HWs from public and non-public sector

Pharmaceuticals	Policy & Regulatory Framework – Improve regulatory capacity – Develop policy and standards for drug local manufacturing HR Roles & Functions – Review the role and functions of the MOH department for pharmaceutical procurement and supply chain Pricing & Financing – Introduce more rational reimbursement methods, including capitation for basic primary care medicines, bundling in G-DRG payments, reference pricing or other modern reimbursement methods – Reduce expenditure for generic medicines through pooled procurement – Consider copayments on drugs Partnership & Coordination – Strengthen capacity of supply chain, include considering private sector partnership/contracting for supply chain/transport, etc. – Improve information systems and introduce incentives for rational use of medicines – Update Drug List based on medical appropriateness criteria – Develop communication strategies for consumers and providers – Conduct audits to ensure quality of drugs procured by agents/GMP, and drugs available at health facilities
Health Financing	
Strategy	-Develop a Health Financing Strategy -Support demand-side financing initiatives -Reduce fragmentation in health financing flows and funds -Improve expenditure management and tracking systems and support NHA -Firm up plans for devolution of financing functions
NHIS Eligibility Changes	-Focus on the Poor (support and scale up common targeting) -Consider changing the eligibility unit -Develop incentives to encourage enrollment
NHIS Basic Benefits Package	-Re-assess the BBP on the basis of cost-effectiveness, financial protection, and sustainability criteria -Consider developing cost-sharing at least for certain services and beneficiary groups -Improve coordination with vertical public health programs
NHIS Revenues	-Assess increasing the VAT Earmark and SSNIT contributions -Introduce Sin Taxes -Consider exemption of beneficiaries based on means testing -Assess a One-time Premium/fee on members -Create further incentives to encourage enrollment of informal sector workers -Consider income-related premiums -Assess the role and appropriate level for the reserve fund
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 -Review the current G-DRG, which separates services from drugs reimbursement. -Review the pricing structure under G-DRG -Review incentives and their effects on utilization patterns, including drug use
Cost containment	-Improve audits for fraud prevention -Improve gate-keeping to reduce unnecessary use of services, or use of primary services at higher level facilities
Administrative Reforms	-Review and upgrade the CPC HMIS -Review and integrate the NHIS beneficiaries database with the claims reimbursement database -Use data to support evidence based policies and systems -Centralize some controls -Support strengthening the decentralized systems -Refine the role of DMHIS and upgrade skills

CHAPTER I: BACKGROUND AND OBJECTIVES

1.1. Background

1. ***The Country.*** Ghana is a relatively small country with a total area of about 239,000 square km bordering on the Gulf of Guinea. It is bounded to the east by Togo, Burkina Faso to the north, Cote d'Ivoire to the west, and the Atlantic Ocean to the south. From the south to the north, the sandy coastline and coastal plain, the central and western forested parts of the country and the northern savannah define three distinctive ecological zones. Annual rainfalls decline from about 2,000 millimeters in the south to about 1,000 millimeters in the north. Gold, ivory and timber riches of the country have historically attracted early exchanges with European traders, followed by the slave trade and colonial occupation. The combination of these geographical and historical factors is translated in a south-north gradient of economic and social conditions which is among the main political and developmental challenges in the country.

2. The geographical size of Ghana, however, is in sharp contrast with its role of pioneer among Sub-Saharan African (SSA) countries. Indeed, Ghana is the first SSA country to gain independence in 1957 and has inspired independence and nationalist movements across the continent. At independence, Ghana was the leading cocoa exporter and one of the largest gold producers in the world, and it had one of the highest literacy rates among SSA countries. Starting in the mid-60s, however, the country's leadership role in the region receded as a result of political instability associated with the succession of military coups and civil rule over fifteen years. Nevertheless, political changes and a new democratic constitution have marked the beginning of the Fourth Republic in Ghana since 1992. As a result, democracy and power sharing are taking a strong hold in the country as evidenced by successive competitive elections, a free press and a growing civil society, and devolution of power and responsibilities to elected district assemblies. The country has enjoyed political stability over the past two decades which is contributing to the restoration of its leadership role in the region in the political and economic domain.

3. Among the power sharing arrangements, territorial administration and ongoing decentralization reforms have created a vertical structure in the public sector with important implications for the health sector. Ghana is divided into 10 administrative regions: Western, Central, Greater Accra, Volta, Eastern, Ashanti, Brong Ahafo, Northern, Upper East, and Upper West. The regions are sub-divided into 170 districts which constitute the country's local government units which are administered by elected district assemblies. While the building blocks for a truly decentralized health system are in place and the overall political and administrative decentralization is being strengthened with common funding mechanisms and the institution of a local government civil service, the public health sector continues to operate under a deconcentration model under the Ghana Health Service regime (Couttolenc, 2010¹): articulation of these two decentralization streams is still a challenge in the country.

4. ***The macroeconomic situation.*** Ghana is a low middle-income country (LMIC). The recent re-basing of the gross domestic product (GDP) according to a new methodology for computing national accounts revealed a much richer economy, revising GDP estimates upward by over 60 percent (Ministry of Finance and Economic Planning (MoFEP, 2010)). Ghana's GDP per capita was rebased in 2010 and is at \$1,150. Ghana's GDP growth rate has increased from 4% (2009) to 7.7% (2010). The real GDP growth

¹ Bernard F. Couttolenc, 2010. "Decentralization and Governance in the Ghana Health Sector". Report prepared for the World Bank: July.

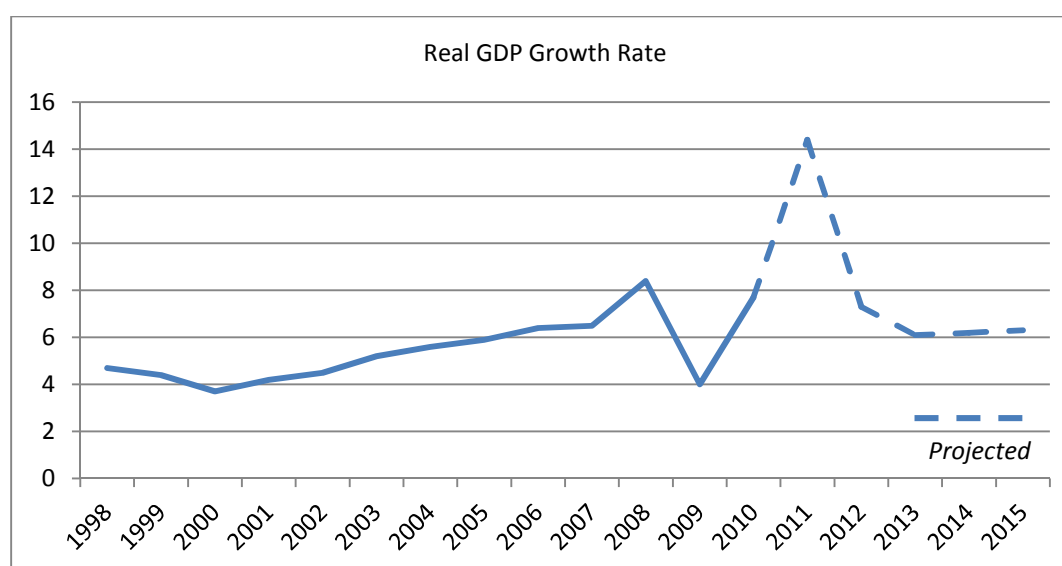
rate is expected to peak in 2011, and to re-stabilize at about 6% per annum from 2012 onwards. The macroeconomic situation in Ghana held steady in 2010.

Table 1: Trends in Ghana's macroeconomic and fiscal performance

Economic and Financial Indicators (annual changes unless otherwise noted)	2008	2009	2010
Real GDP	8.4	4.0	7.7
Real GDP per capita	5.7	2.0	3.1
Consumer price index	16.5	19.3	10.7
Current account balance (millions of US\$)	-3,079	-1,034	-2,252
Fiscal deficit (% of GDP)	8.5	5.8	6.5

Source: MoFEP and CAGD reported in (World Bank, 2011)

Figure 1: Ghana, Real GDP Growth Rate (1989-2015)



Source: International Monetary Fund, 2011

5. Agriculture, which was at least 50% of GDP in 1989, has shrunk quite drastically to about 32% of GDP earnings. Whereas, service sector, still in its early stages of development, has now grown to take up 50% of the GDP earnings (2009).

6. In 2009, 51% of Ghana's population lived in the urban areas, which suggests that cities are growing fast, and people are probably migrating to cities to make use of the economic opportunities. In contrast, it also suggests that rural areas do not have many economic opportunities as there are both pull and push factors at work.

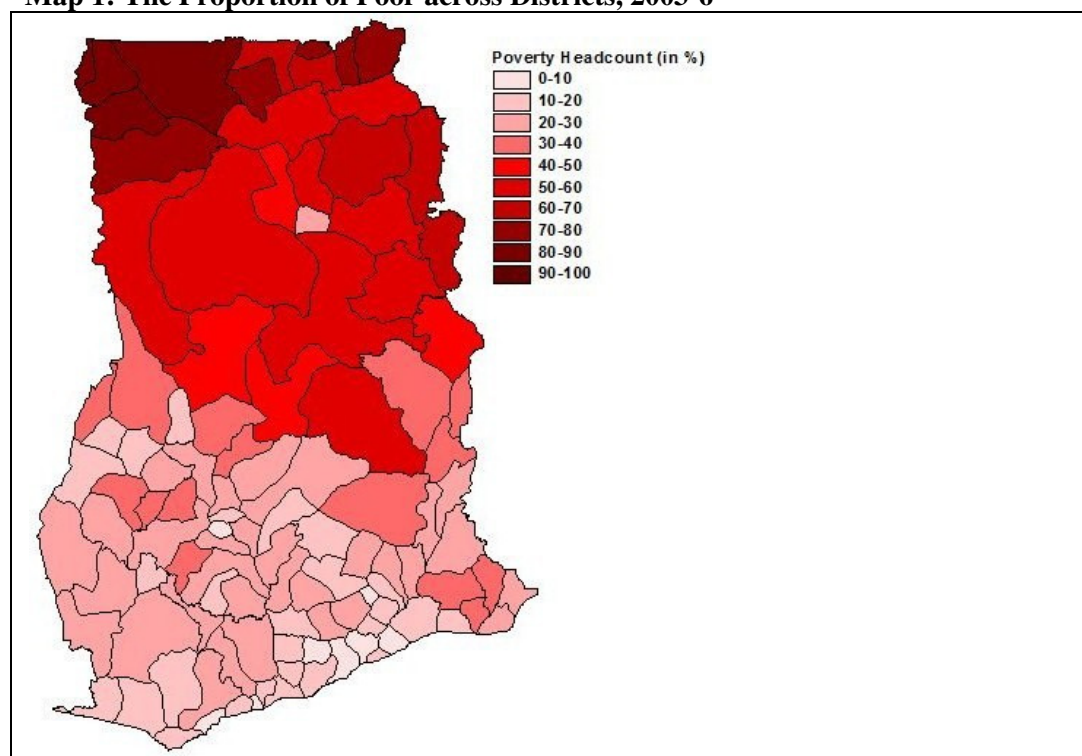
7. Whether cities have the appropriate infrastructure to address the needs of the population (housing, health, education, water, sanitation, electricity, etc) is uncertain. Access to improved water source is high (82% of total population), however, access to improved sanitation is low (13% of total population). This leads to a poor public health environment.

8. Cities probably have demand for skilled labor and whether there are appropriate skilled workers is to be seen. Adult literacy is 66%, while adult female literacy is 59% (2009). Labor force participation rate is 73.3% for adult males and 71.7% for adult females (2008). Ghana's population is growing at 2.1%

while its labor force is growing at 2.6%. This is a good sign however, as compared to SSA averages (2.9%), labor force growth in Ghana is below its comparators.

9. ***The incidence of poverty*** has declined from 51.7% in 1992 to 28.5% in 2006. Poverty reduction, however, has been uneven across the country with the persistence of the south-north gradient: the incidence of poverty has declined significantly from 47.9% in 1992 to 19.8% in 2006 in the south, while small changes have been observed in the north from 68.8% to 62.7% respectively (World Bank, 2010²). The south-north gradient is also observed in the country's population dynamics and health conditions.

Map 1: The Proportion of Poor across Districts, 2003-6



Source: World Bank Staff calculations based on CWIQ 2003 and GLSS5.

1.2. Population Dynamics and Demographic Changes

10. ***Ghana has shown a steady decline in its population growth rate.*** Ghana's population is at 24.3 million (2010), with a population growth rate of 2.1% (2005-2010). Population growth has declined over the years, primarily due to falling total fertility rate (TFR): from 5.34 children per woman (1990-95), to 4.34 (2005-10).³ Ghana showed a declining trend in TFR for many years, but since 1998, outcomes have slowed down. Significant fertility reductions are noted among girls below 19 years, and this is largely a consequence of increased enrollment into schools, and changing economic opportunities. Significant fertility declines are also noted among women in the higher age groups of 45-49 years, largely a consequence of use of the contraceptives or abstinence. However, slow fertility declines and sometimes stagnation is noted particularly among women between 20 and 34 years. The TFR is relatively higher among the lower income quintiles, the rural women, and in the Northern region of Ghana. Contraceptive

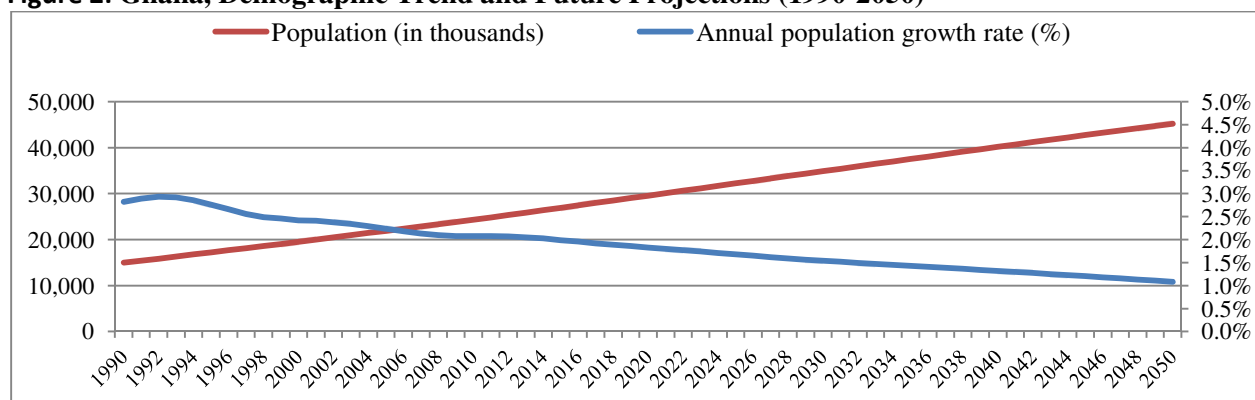
² The World Bank, 2010. Republic of Ghana : Tackling Poverty From Northern Ghana. Africa Region. April.

³ United Nations, Department of Economic and Social Affairs, Population Division, Population Estimates and Projections Section, 2010 Revisions. <http://esa.un.org/unpd/wpp/unpp/p2k0data.asp>

prevalence rate however is low and stagnated in the past decade at around 24% (1998-2008). Unmet needs are high at 35%.

11. *Ghana has entered a demographic transition*, with lower population growth and lower fertility rates. Crude Birth Rate is at 32.6, and Crude Death Rate is at 8.3 (2005-10). Given the huge reproductive age group, Ghana's population will continue to increase from its 2010 level of 24.3 million to 33.8 million in 2030, an increase of 39%. However with declining birth rates and increasing life expectancy the percentage of the population below 14 will decrease from 38.1% in 2010 to 30.8% in 2030, while the percentage of the population over 64 years will increase from 3.7% to 5% by 2030. In 2030, there will be 90% more elderly than there were in 2010.⁴ 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.

Figure 2: Ghana, Demographic Trend and Future Projections (1990-2050)



Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision, <http://esa.un.org/unpp>, Sunday, April 17, 2011

Table 2: Ghana: Proportion distribution -1984, 2000 and 2010

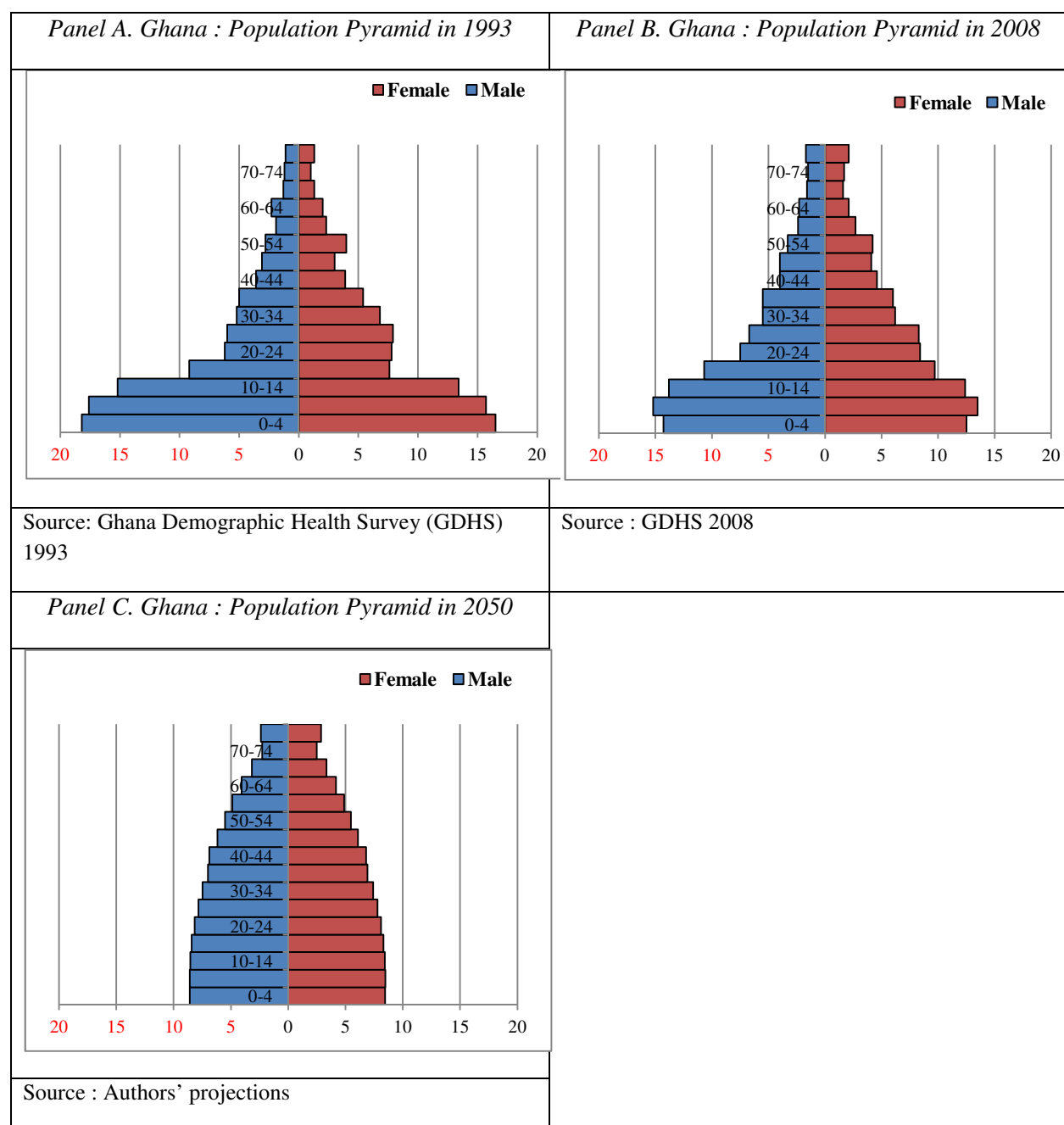
	1984	2000	2010	2000-2010 annual growth rate (%)
Total population in millions	12.3	18.9	24.2	2.5%
Urban population in millions	4.1	7.9	12.1	4.7%
Rural population in millions	8.5	10.9	11.7	0.8%
Regions (in millions)				
· Western	1.2	1.9	2.3	1.9%
· Central	1.1	1.5	2.1	3.4%
· Greater Accra	1.4	2.9	3.9	3.0%
· Volta	1.2	1.6	2.1	2.7%
· Eastern	1.7	2.1	2.6	2.1%
· Ashanti	2.1	3.6	4.7	2.7%
· Brong Ahafo	1.2	1.8	2.3	2.5%
· Northern	1.2	1.8	2.5	3.3%
· Upper East	0.8	0.9	0.5	-5.9%
· Upper West	0.4	0.6	0.3	-6.9%

Note: Population figures for urban and rural are for 2009 under column 2010

Sources: Ghana Health Services (GHS) Facts and Figures; Ghana Statistical Service (Ghana info v.3.0)

⁴ World Bank, Health, Nutrition and Population STATS, accessed 4/21/2011

Figure 3: Ghana, The Changing Age Structure of the Population



12. **Demographic dividend.** 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. Ghana’s dependency ratio⁵ will decrease from 0.72 dependents per productive member in 2010 to 0.56 in 2030 and continue decreasing to 0.51 by 2050.

⁵ 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.

Table 3: Estimated dependency ratio between 2010 and 2030

	2010	2030
Population <14 years	38%	31%
Population >64 years	3.7%	5.0%
Dependency ratio	0.72	0.56

Source: Author's projections

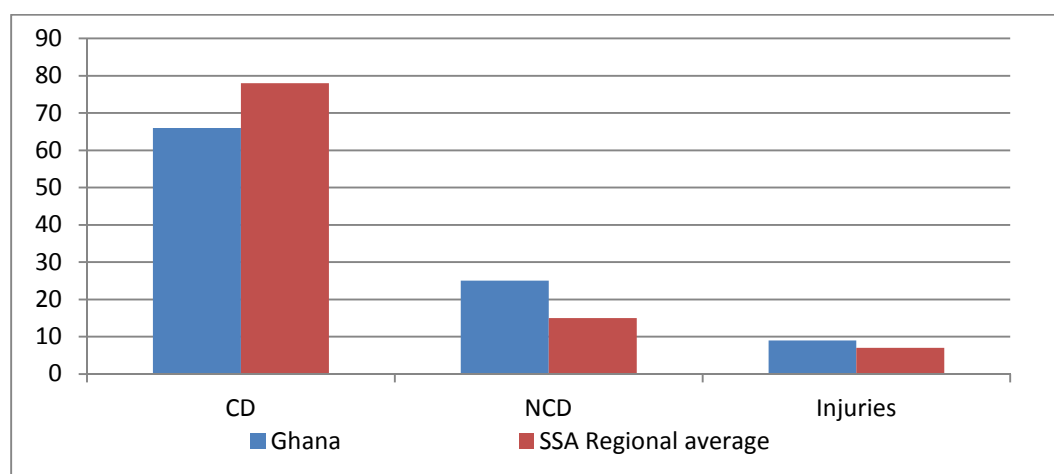
13. The 'demographic benefit' from this falling dependency ratio will become a reality only if Ghana can productively employ these individuals. Employment possibilities, productivity growth, and revenue potential will also depend on the size distribution of firms as well as the level of informality in the economy. Currently, small firms, less than 5 employees account for 70% of business firms and as much as 70 – 90% of the labor force may be in the informal sector⁶. 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 the National Health Insurance Scheme's (NHIS) premium income, and political unrest.

1.3. Epidemiological Changes

14. ***Communicable diseases (CD) although coming down are still highly prevalent in Ghana.*** As compared to the situation in the region, Ghana fairs better. Although, cost-effective interventions are offered in Ghana, 53% of deaths are CD-related. Among children under-14, infectious and parasitic diseases and perinatal conditions are the leading causes of death, while malaria and pneumonia are cited as the leading causes of death among children under-5 years. There is need to have a fresh look at programmatic aspects. Health Systems issues and challenges are a key bottleneck. A quick reduction in CD, would free up resources for new and emerging diseases and for improving quality of care.

⁶ The Informal Economy in Ghana, A Comparative Perspective: Co-hosted by the Ghana Statistical Service and WEIGO, October 24, 2005, Accra, Ghana. Benzing, C., Hung C. (2009). A Comparison of the motivations of small business owners in Africa. *Journal of Small Business and Enterprise Development*. 16:1, 60-77.

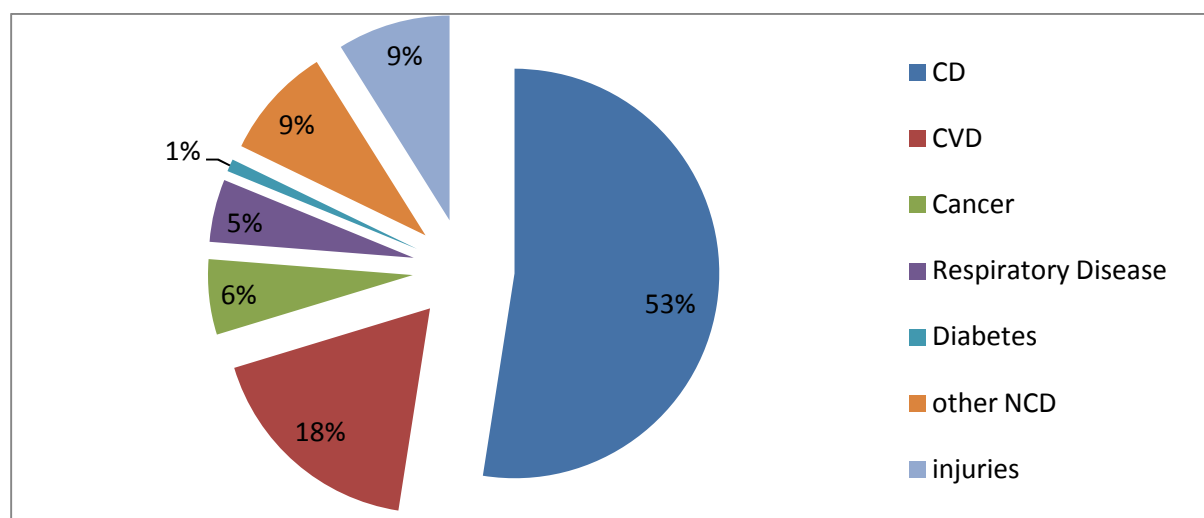
Figure 4: Distribution of years of life lost by causes (2008)



Source: WHO, 2008

15. ***Ghana is going through an epidemiological transition and non-communicable diseases (NCD) are becoming a growing concern.*** As compared to the SSA region, Ghana shows higher prevalence of NCD. In 2008, Ghana was already showing 39% of deaths due to NCD. Ghana is well on its way to an epidemiological transition. Among adults 15-59 years, 45% of the causes of death are reported as NCD (35%) or injuries (10%): infectious diseases, cardiovascular diseases, and injuries are leading causes of death. Among adults over 60 years, 67% of deaths are NCD in nature: cardiovascular diseases and infectious diseases are leading causes of death (WHO, 2008).

Figure 5: Causes of Death, 2008 estimates



Source: WHO, ND Country Profiles, 2011

16. ***Policy is in place.*** A national policy has been developed outlining prevention and control of NCDs. The Regenerative Health and Nutrition Program developed under the 2007-2011 Program of Work is aimed at addressing some of the lifestyle and nutritional issues causing NCD by emphasizing healthy lifestyles through healthy diet, exercise, rest and environmental cleanliness. Preventing NCD requires behavior changes to improve diet and physical activity, including investments in education, food policy, and living environments. Strategy and sustainable financing of NCD control, prevention and promotion

has not been entirely addressed. NCD treatment is expensive, and there is need now to introduce NCD prevention and control programs, so that later the country does not face high expenditures from NCD treatment. Ghana has included within the NHIS benefits package, treatment of several (but not all) NCDs.

Box 1: Country capacity to address and respond to NCDs

Has a Unit / Branch / Dept in MOH with responsibility for NCDs	Yes
<i>There is funding available for:</i>	
-Cardiovascular diseases	No
-NCD treatment and control	Yes
-Cancer (with some exceptions)	No
-NCD prevention and health promotion	Yes
-Chronic respiratory diseases	No
-NCD surveillance, monitoring and evaluation	Yes
-Diabetes	No
-Alcohol	No
<i>National health reporting system includes:</i>	
-Unhealthy diet / Overweight / Obesity	Yes
-NCD cause-specific mortality	Yes
-Physical inactivity	Yes
-NCD morbidity	Yes
-Tobacco	No
-NCD risk factors	Yes
-Has a national, population-based cancer registry	No
Source: WHO, 2011	

17. ***Prevention of NCD is inadequately addressed.*** Access to services for CD control has been a challenge for many. Access to services for NCD control has also been sparse. Access to NCD treatment is difficult, as the latter is offered at a few urban tertiary hospitals. The population affected by NCD is also located in urban areas. Quality of services for CD remains variable (as will be illustrated below), while quality of services for NCD has yet to be assessed. It will be important for Ghana to understand the quality of services offered not only at clinics and hospitals (in particular), but also at the district levels which are responsible for providing and monitoring public health activities. Further, use of CD health services by income and regional grouping are well documented, however, the use of NCD (chronic and non-chronic) health services are not well documented. There is need to have a better understanding of the patterns and use of services of catastrophic illness. Ghana does not have a comprehensive surveillance system for NCD or their risk. The country could benefit from a nationwide STEPS survey to set a baseline, and an improved health information system to monitor the situation.

18. ***Implementation strategy is weak.*** There is no clear implementation strategy, and little effort seen at district-level to extend the program to prevention and control of NCDs. Guidelines to establish screening and proper management of NCD at district and sub-district levels have not been decentralized. All adults above 18 years attending a health facility are required to have their blood pressure taken, while ad hoc screening for blood pressure, body mass index (BMI) and breast examinations are conducted by non-government organizations (NGOs) and churches during important festivals or public holidays. Health education with regard to NCDs is generally weak and mostly tied to other programs such as malaria, Tuberculosis (TB), HIV/AIDS⁷ and polio. Further, systematic screenings for cancer have yet to be established while breast cancer screenings are currently only available in two teaching hospitals. Cervical

⁷ HIV/AIDS is Human immunodeficiency syndrome/acquired immunodeficiency virus

cancer screenings are currently available in some private health institutions however these are expensive, and accessibility is only for those able to afford it. All cancer treatments are not covered under the NHIS benefits package, except for, cervical and breast cancer.

1.4. Labor market situation

19. *The public sector workforce has grown* at an annual average growth rate of 4% (from about 371,000 staff in 2000 to about 501,000 staff in 2009). Ghana has 22 public sector employees per 1,000 population (2009).

20. The health workforce has grown as a proportion of total public sector workforce from 10% (2000) to 13% (2009), with an annual average increase of 9%. The health workforce doubled [from 36,000 (2000) to 65,000 (2009)], and grew from 1.98 (2000) to 2.83 (2009) per 1,000 population.

21. *The public sector wage bill has increased in both nominal and real terms*, with a significant change observed following multiple events between 2004 and 2006. Public sector wage bill has spiraled upwards, most notably post-2000: reflecting inflationary increases, fragmented negotiations, and political events. While the Government considered its wide-scale pay reforms, overall salaries continued to increase, in several cases after adjusting for inflation, while post 2000, minimum wages increased almost annually after adjusting for inflation. Some of these relatively higher wage increases in some sectors were a result of fragmented pay scale negotiations with 20 or 30 trade unions. In other cases, it was a consequence of some political events, such as (a) separation of the public delivery service (e.g. Ghana Health and Education Services) from the civil service in the run up to the completion of the 1992 constitution, (b) subsequent to the 2000 and 2004 elections, and (c) subsequent to the introduction of the new health salary structure in 2006.

22. The overall wage bill in Ghana has grown: (a) as a proportion of (rebased) GDP from 3.6% (2000) to 6.7% (2008), and (b) as a proportion of total government revenue from 32% (2000) to 57% (2008). The wage bill in the health sector has grown from 0.3% (2000) to 1.0% of (rebased) GDP (2008), and makes up about 15% of the overall wage bill.

23. The health workforce benefited from salary increases in the past decade. While the health workforce wage bill grew as a proportion of total wage bill (from 9% in 2000 to 15% in 2008), the education workforce wage bill declined (from 57% in 2000 to 50% in 2008). The largest proportion of the government wage bill went towards payroll costs for the education workforce (50%) followed by the health workforce (15%) in 2008. The education workforce is the largest in the public sector (57%).

1.5. Overview of Ghana's Health System

24. The National Health Policy was developed in 2007, and the current Health Sector Medium Term Development Plan (HSMTDP) 2010 – 2013 is a follow-on strategy linking the latest national development framework adopted in 2010 to accelerate the attainment of the Millennium Development Goals – the Ghana Shared Growth and Development Agenda 2010 – 2013, from the earlier health sector strategies arising from the developmental agendas of Vision 2020 through the Ghana Poverty Reduction Strategy I and II. In all these health sector strategies to address the Government Developmental Agendas, the collective objectives had been improving health outcomes of the populace, financial protection, consumer responsiveness – equity, efficiency and sustainability.

25. To reach these objectives, public management of the Ghana health sector has undergone major policy changes which have set in motion a restructuring of institutional arrangements in the health sector. Institutional changes have initiated the separation of policymaking, service delivery, financing and

regulation functions of the MOH between relatively autonomous agencies including the GHS, the National Health Insurance Authority (NHIA), Teaching Hospitals and many regulatory bodies. Moreover, entitlements of citizens in the health sector are being strengthened through the extension of health insurance coverage supported by an increasing role of the state in the financing of health services. As a result of these policy changes, allocation mechanisms of public resources in the health sector are in transition from an input-based health financing system limited mainly to public and mission health care providers towards a performance-based health financing system opened to public, mission, as well as private health care providers. How these health financing system changes will be translated in incentive structures for the production of curative services and high impact preventive services is an issue that deserves further investigations.

26. The separation of service delivery, financing, and regulatory functions initiated in the past decade has created a favorable environment for organizational changes in health service delivery systems. As a result of the decentralization of health services and the district level being recognized as the decentralized unit, the mix of health service delivery organizations at the district level is being strengthened including the expansion of the role of district hospitals and the re-emergence of primary health care within the context of Community-based Health Planning and Service (CHPS) initiative. Public private partnership (PPP) steered by direct interventions of the Ghana Health Service (GHS) and accreditation of private providers by the NHIA are contributing to the expansion of private health service delivery organizations including private hospitals, clinics and maternity homes.

27. These health systems changes, however, are not marched with the decentralization of management structures. There is limited management autonomy for public health facilities with the exception of teaching hospitals. Management of human resources for health is still centralized within the MOH and the GHS structures, including for mission health facilities which are dependent on the MOH for their human resources. Management of public health facilities and mission health facilities has gained flexibility in the purchase of drugs and the management of internally generated revenues. Management flexibility in the purchase of drugs has been gained by default as a consequence of major weaknesses in the public drug procurement and distribution system and a greater reliance on the private sector for the purchase of drugs. In addition, increasing internally generated revenues of public and mission health facilities, which have been fuelled by reimbursements from the NHIS, are contributing to greater flexibility of public and mission health facility management. These dynamics are strengthening incentive structures faced by health facilities towards the provision of curative care services; how they affect incentives for the provision of preventive care services is not clear yet.

28. The Government recognizes the role of health, especially, public health in its developmental agenda and funds it as a priority sector. The bulk of resources to the health sector are directed towards clinical care and basic public health activities. Most of the basic public health activities in the health sector are managed through the Public Health and Family Health Divisions of the GHS with substantial overlap of responsibilities.

29. The role of development partners in the sector has evolved over the last twenty years. It has changed from a restricted role post independence to a dynamic partnership arrangement. The government has actively engaged the development partners in finding mechanisms that will enable the sector maximize the support received from development partners. In the mid 90's, the sector became one of the forerunners for the Sector Wide Approach. This new mechanism for engagement resulted in the set up of two new coordinating mechanisms: Pooled funds and Common Management Arrangement. The start of 2002, the increased desire to have more results from all the aid money led to the signing of the Paris Declaration on Aid Effectiveness and later on the Accra Agenda for Action. These documents both laid out guidelines for making aid more effective. In the latter part of 2000, the rise of Global Health

Initiatives such as the Global Fund for HIV/AIDS, Malaria and TB and the Global Alliances for Vaccines have made more resources available to the sector.

1.6. Cross Cutting areas of reform

1.5.1. Decentralization and Governance

30. ***Ghana has developed a comprehensive legal and regulatory framework for decentralization, using the model of devolution.*** Within a long process of decentralization that goes back to independence, the Government of Ghana has defined a form of decentralization by devolution to Districts (Local Government Act 452, 1993), and which includes devolution of the social sectors⁸. However, the Ministry of Health (MOH) Ghana Health Service and Teaching Hospital Act (Act 525, 1996) did not support devolution of the health sector, whereas, it supported delegation from MOH to Ghana Health Service (GHS) and deconcentration within GHS. The two Acts (Act 452 and 525) were in conflict. The subsequent Local Government Service Act (Act 656, 2003) left out the social sectors staffs devolution to the local government authorities. The conflicting Acts and the lack of a common decision have delayed the process of devolution in the health sector.

31. ***Ghana has made significant progress in decentralization, and several building blocks for a devolved health system has been put in place.*** These include a comprehensive legal framework for government decentralization, the establishment of district-level political and administrative structures including the District Assemblies (DA) and the deconcentrated GHS offices, a number of useful information systems and management tools (including planning and budgeting systems, reporting and information systems, performance measurement, and financial transfer mechanisms to local governments), and the implementation of participation mechanisms including facility boards. However, the process has been hampered by issues related to regulatory inconsistencies, unclear policies, incomplete implementation, resistance to change, weak managerial capacity, centralized authority over key resources, weak capacity at central and regional level to monitor and support implementation, and weak economic base of many districts.

32. ***However, the health sector lacks a comprehensive policy framework and a legal framework supporting health decentralization.*** Recently, MOH developed policy documents addressing the issues of decentralization in the health sector. However, a comprehensive and clear policy framework to guide implementation of devolution in health is still lacking. Further, the existing legal framework concerning health system decentralization is contradictory; successive waves of laws and regulations offer changing and conflicting views of what decentralization should look like, and are vague as to which functions are to be devolved to whom. One of the main conflicts is the often highlighted contradiction between the Government of Ghana's general policy of devolution and MOH/GHS model of delegation *cum* deconcentration. Other regulatory conflicts have built up over the years.

33. ***The health sector has made some strides and some areas lag behind.*** Decentralization in the health sector is strongly supported in the area of information systems, and supportive services, including procurement of drugs and supplies, and maintenance of capital investments. Some decentralization is evident in human resources for health, although the remunerations are still centralized, and finances too are somewhat decentralized. Fiscal decentralization in Ghana is more apparent than real: although over 50% of public health expenditure is allocated to the district level, the larger part of these resources are allocated and controlled by the central government (MOH or MOFEP); local authorities have little real

⁸ In a subsequent Local Government Service Act (Act 656, 2003), both education and health staff, however, were left out of the Act and remained as separate services under Ghana Health and Education Services.

decision power on resource allocation, and local decision power is further reduced by substantial delays and unpredictability in the transfer and release of funds.

34. *However, decentralization in the health sector is not fully realized with weak effects in governance and decentralization, policy and planning and service organization and provision.* Governance and accountability of local health institutions is weak, with blurred lines of authority and accountability, overlaps and duplications, and fragmentation of responsibilities for resource allocation and management. A major obstacle to effective implementation in the health sector has been that many stakeholders have limited awareness and understanding of the process objectives, prerequisites and implications, as a survey of regional and district officers clearly showed; this makes it difficult to build consensus and support for the process, and constitutes a potentially important obstacle to the devolution policy of the Government in health.

Table 4: Mapping out decision space for Ghana Districts regarding Health

Functions	Responsibilities	Weak	Average	Strong
Governance and Accountability	Appointment of DHA director Collaboration with DHA Accountability of DHA to DA Accountability to Central level Accountability to local community	X (GHS) X X	X (variable) X (committee)	
Policy and Planning	Policy formulation Health planning Program design	X	X (financial constraints) X	
Finance	Revenue generation Budget preparation, allocation Accounting and audit Set user fees Set up & manage insurance schemes	 X	X (limited) X (in place) X	X (fees, IGF)
Service organization and provision	Define service packages Target service delivery Set norms, standards, regulations Monitor and oversee providers Contract in/out	X (GHS) X (central) X (central)	X (dialogue)	 X
Human resources	Planning, evaluating HR Hiring, firing civil servants Hiring, firing other staff Define salaries & benefits Training Paying staff	X (Pres) X (central) X (civil servant)	X	 X X X (other)
Support services	Procurement of drugs & supplies Manage drugs and supplies Maintain vehicles & equipment Maintain facilities & structures		X (some)	X X (support) X (support)
Information systems	Design Health information systems Collect, process, analyze data Disseminate information			X (limited to public sector) X X

Source: Couttolenc, 2010. CSR Background Paper on Decentralization and Governance. The World Bank.

Note: DHA = district health administration, DA=district assemblies, HRH=human resources for health

1.5.2. The Private Sector

35. ***The policy environment of the health sector of Ghana is business friendly and encourages private activity.*** Ghana recognized the private health sector's importance, and its potential importance, when it fashioned a Private Health Sector Policy, in 2003. Since the enactment of that policy, the importance of the private role in the sector has been recognized by the inclusion of private representatives in the annual health summits and by the creation of a Private Sector Unit in MOH. The regulatory bodies set up to oversee private activities in the sector successfully oversee the licensing of most new facilities. Finally, the National Health Insurance Scheme (NHIS) reimbursements for care delivered by both the GHS and private accredited providers broaden accessibility to services.

36. ***The institutional environment and incentive structures are favorable for the strengthening of engagement between public and private actors in the health sector.*** The MOH has had several institutional successes: The regulatory councils' and boards' criteria and standards for the opening of private facilities are applied and respected by private actors. The Private Sector Unit was established by MOH and assigned to implement the Private Health Sector Policy. The public-private partnership (PPP) with the Christian Health Association of Ghana (CHAG) works well and makes CHAG an extension of the GHS in underserved rural areas. The national tuberculosis program collaborates with private providers to extend its reach. On the private side, private associations represent health professions and provider groups. Private schools add significantly to the supply of nurses. Concerning the NHIS, its accreditation program systematically addresses many aspects of quality of care in the private sector and soon will do so for GHS providers.

37. ***Implementation gaps of the 2003 Private Health Sector Policy are among the challenges.*** It is the intent of the MOH policy to ensure access to health services for all. However, the supply of services from both private sources and the GHS in rural areas lags far behind the supply in urban areas, yet the majority of the population lives in rural areas. Despite the sound situation analysis and identification of policy issues concerning the role of the private sector in health in the 2003 Private Health Sector Policy, most of the agenda for action related to that analysis remains unimplemented. Much of the private sector remains left out of the mainstream of MOH and GHS thinking and action.

38. ***Institutional failures are associated with limited capacities of MOH and GHS at the central and local levels, but also with the limited capacities and fragmentation of private actors.*** The list of institutional successes is counterbalanced by numerous institutional challenges, such as the MOH / GHS failure to develop a high-level public champion for an enhanced private role in the health sector. The Private Sector Unit in the MOH has been unable to achieve more than a few of the items on the action agenda by the 2003 policy.

39. ***The regulatory councils and boards have insufficient resources to conduct ongoing supervision and monitoring of private actors, so they are limited mainly to oversight of the opening of facilities.*** Regulations are formulated by the councils and boards without a forum for input and criticism by the regulated parties. The Food and Drugs Board's (FDB) regulation of pharmaceutical products is inadequate to sufficiently address the issue of counterfeit and substandard drugs. At the district and regional levels, the District and Regional Health Management Teams (DHMTs and RHMTs) are charged with overseeing the health sector, but are managed by the GHS which focuses on its providers' activities, not the sector as a whole. There is no specific forum for discussion and engagement between public and private sector representatives.

1.7. The Report

1.7.1. The Rationale

40. ***Rationale for the production of the Report under the health sector environment.*** The Report was prepared at the request of the Government of Ghana and in preparation for their HSMTDP in 2011. The Report provides an overview of the health sector in Ghana with particular emphasis on health systems, achievements and challenges, and possible reform options. Although, the HSMTDP (2010-2013) was developed a year earlier than planned, the MOH requested that the Report still be prepared, as the HSMTDP is dynamic as it is subsequently followed annually through the development of the Program of Work. However, given that several of the background studies were prepared and presented earlier, the HSMTDP benefitted from the information from those documents.

41. ***Methodology and process of the production of the Report and major stakeholders involved in its production.*** The process on the preparation of the Report has been very participatory. Under the leadership of the MOH, seven technical sub-committees were set-up, comprising of experts and representatives from the MOH, the GHS, the NHIA, Development Partners, academia and think tanks. The technical experts worked in close consultation with the technical sub-committees in conducting the reviews and assessments. For the most part, secondary information (data and documents) were consulted, however, in some cases, primary data was also collected, where gaps existed, and especially if time and resources permitted. The findings from each of these background studies were presented at workshops or at the Health Summit, or at Stakeholders' Consultations. The background studies were also peer reviewed from within the Bank experts, and in some cases from international experts. The final background studies incorporate comments from the various reviewers.

1.7.2. The Organization

42. The Report aims to provide a situation assessment of the health sector, with particular emphasis on health systems. It also provides an important debate in the health sector dialogue and leads to discussions for the Government to consider a serious and reprioritized health sector reform agenda for the country. The various discussions and debates triggered in the country as a result of the various background documents have led the Government to move the agenda for strategic dialogue and planning. As a result of the dialogue, the following steps are already being taken by the Government: (a) the preparation of a strategy on human resources for health, (b) revision of the private sector policy, with emphasis on PPP, (c) development of projects with PPP components, (d) set-up of a high-level intersectoral committee on health financing, (e) open the debate and discussions on decentralization in the health sector, (f) refocus attention on the gaps for infrastructure strengthening especially for primary health care, and finally (g) highlight the challenges and the need to urgently strengthen Monitoring and Evaluation (M&E) systems.

43. The Report is organized in five chapters. Chapter 1 provides an introduction and report objectives, with socioeconomic and health systems context, including the demographics and epidemiological changes. Chapter 2 provides the situation of the health delivery system (infrastructure, health workers, and pharmaceuticals). Chapter 3 gives an overview of the health financing system, including functions, programs, health insurance and spending trends. Chapter 4 provides an assessment of the financing and delivery performance, including health outcomes, efficiency and equity dimensions. Finally, Chapter 5 sets an agenda for health sector reform options in Ghana.

CHAPTER II: HEALTH DELIVERY SYSTEM

44. This chapter provides a situation analysis of the health delivery system in the country, with details on the distribution of the health infrastructure with intra-country variation and the situation of health workers, as compared to the international benchmarks, and as compared to the intra-country variations. It also discusses the situation of the health workers production, and in-service competencies. Further, a brief situation analysis is also provided on pharmaceuticals.

Key Messages

Infrastructure

- Hospital bed-ratio do not meet its comparable income and health spending global comparators, although, are fairly adequate for the time being, as bed-occupancy-rates are low.
- Health facility and hospital bed distribution are skewed in favor of urban areas. Rural hospitals have limited human and physical capital investments.
- While investment in hospitals was scaled up, investment in primary health care suffered. There is limited investment and continued inequity in the primary health care network including at the community level.
- Private sector is an important contributor in service provision, and partnerships especially in under-served, remote and rural areas can be beneficial.
- There is a shortage of medical equipment especially at lower level facilities. Medical equipment and vehicles are limited and aged, adversely affecting access, quality of care and creating further inequity.
- Regional differentials are evident, and the Northern region stands out with the poorest infrastructure distribution.
- Particular attention is required in setting standards, planning, budgeting and coordination with the non-public sectors.

Human Resources for Health

- Health human resource situation does not meet international benchmarks. Health Worker production is a challenge, although one of the best in SSA. Although in the past migration led to low staffing in the country, retirement is seen to lead to critical shortages in the coming years.
- The missions/private sector has formed partnership with the public sector in delivery of health service especially for rural and remote areas.
- Staff salary increases have resulted in less migration, but the staffing distribution is still not addressed.
- While many health workers have a more egalitarian distribution, the distribution of highly skilled professionals (e.g. physicians) is skewed in favor of urban areas and certain regions like Greater

Accra and Ashanti regions. The location of pre-service training can be a significant factor in re-distribution of health workers.

- The quantity of health workers is increasing overall, while quality lags behind. Health worker performance is low and variable across regions. The health workers competencies were often rated low. In-service training programs and supportive supervision programs can help ensure guidelines are followed, and standards are maintained.
- The private sector is engaged in health worker production, and can be further encouraged; however, accreditation standards should be strictly enforced to ensure the quality of production.
- Particular attention is required to setting and enforcing accreditation standards for pre-service training, to providing appropriate (financial and non-financial) incentives for a more egalitarian distribution and for a more performance oriented staff.

Pharmaceuticals

- Availability of medicines has improved at facility levels, resulting in increased use of health services.
- Drug prices are significantly higher than international reference pricing.
- The private sector is a key contributor to the delivery of services, and to the provision of drugs.
- Quality of drugs is variable as the process of procurement is decentralized and as regulatory controls are weak, and prescribing behavior do not follow clinical practice guidelines.

2.1. Health Infrastructure and Other Capital Investment

2.1.1. Infrastructure

45. ***Ghana has a comprehensive health service delivery system***, from community-based programs (e.g. CHPS) to sub-district clinics and general hospitals, regional general hospitals and the pinnacle at the national level with the specialized tertiary hospitals. The public and private sectors are important players in the health service delivery system, including modern and traditional health providers.

46. ***The public sector has the largest share of the market on health inputs:*** for health facilities, hospital beds, and health providers, followed by missions (CHAG and Islamic). The private sector (for profit and missions) hospitals are smaller in size, but together take up 34% of total hospital beds in the country.

47. ***The non-public sector is as important in providing health services, as is the public sector.*** Of the 2,441 health facilities almost half belongs to the non-public sector. Of the hospital beds, at least 34% belong to the non-public sector. The CHAG contribute to a significant proportion of the non-public sector beds, and are equally in urban and rural areas, while the for-profit facilities are concentrated in the urban areas. Rural areas are served by the public sector and through public-private partnership arrangements between the public sector and the missions.

Table 5: Type of Ownership of Health Facilities and Health Care Providers, 2009

Facility Type	Health Facilities				Hospital Beds	
	total	hospitals	clinic	%	total	%
Total	2441	358	2083		22,164	
Public sector	1217	111	1106	50%	12,830	58%
Teaching Hospitals	3	3				
Psychiatric Hospitals	3	3				
Regional Hospitals	9	9				
District Hospitals	1202	96				
Quasi-public	91	22	69	4%	1,748	8%
CHAG	227	59	168	9%	5,903	27%
Islamic	18	10	8	1%	306	1%
private for-profit	888	156	732	36%	1,377	6%
% of total		15%	85%			
% private for-profit	36%	44%	35%		6%	
% private and missions	46%	63%	44%		34%	

Source: Ghana Health Service, 2010

48. ***Ghana has made efforts to scale up its community-based health initiatives to reach rural and remote areas; however, much effort is still required to reduce its inequity in access.*** With the objective to scale up health service access, increased effort was seen between 2005 and 2009. CHPS grew from a mere 15 (2005) to 376 (2009), although, far below the desired target of 1,162 (2013). Highest density of CHPS was seen in Upper East and Upper West, while the regions of Ashanti, Northern, and Brong Ahafo had among the worst. However, the largest growth of CHPS was reported to be in the Northern region (95 new CHPS between 2005 and 2009). CHPS was originally initiated as a community-based initiative; however, its community-based essence seems to be overtaken by investments into building the CHPS compounds. It will be important to revive the original concept.

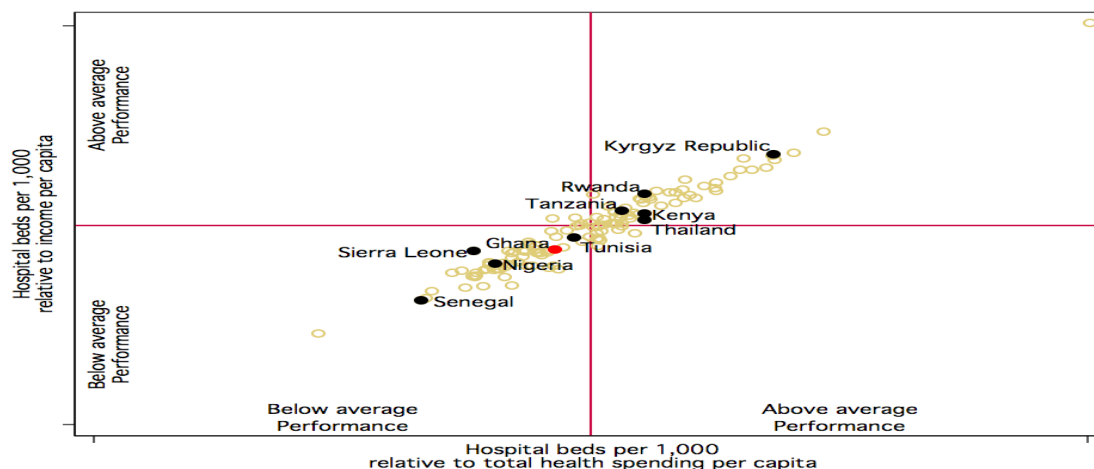
49. In 2009, Ghana had 1,600 health centers. The highest density of health center was seen in the Volta, followed by Greater Accra and Eastern and Western regions. Brong Ahafo and Northern regions were below regional average.

50. ***There are weak standards and poor planning affecting hospital distribution across the country.*** The planning and scaling up of hospitals were not the most efficient, and GHS and CHAG activities were not well coordinated to bring in economies of scale. Private sector contribution was not taken into consideration in planning and implementation. Ghana has 170 districts, but most (74%) have a population under 150,000. In 2009, Ghana had 153 district hospitals, of which 62% were under GHS (and the rest owned by CHAG). Overall, 42% of districts had at least one district hospital, 11% had more than one district hospital, and 47% had no district hospital. If the World Health Organization (WHO) recommendations are followed, it would suggest, Ghana has too many district hospitals already, with many of them under-utilized and several regions crowded with over supply of hospital beds⁹.

⁹ World Health Report. 2008. Definition of “health district”: a typical population size justifying a district hospital would be around 150,000 – 250,000. If WHO recommendations are followed, it would suggest Ghana rationalize district hospitals, with one district hospital covering at least a few districts, depending on district population size. The general recommendation is to build hospitals that can be the most economically efficient, with

51. **Overall, as compared to other countries with similar income and health spending, Ghana has slightly fewer hospital beds per capita.** Between 2002 and 2009, almost 3,000 new hospital beds were added, estimating a total of 19,687 in the public sector.¹⁰ The agenda was to increase the average hospital bed capacity overall, but it did not match population growth rates, nor did it consider spatial distribution. The hospital bed ratio at the national level went down from 1.46 (1990) to 0.92 (2002) to 0.81 (2009) per 1,000 population. Tunisia, Kenya and Tanzania fare better than Ghana, while Senegal, Sierra Leone and Nigeria have lower ratios.

Figure 6: Hospital beds to population ratio relative to total health spending and income, 2009



Sources: World Development Indicators & WHO, 2011

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

52. **Public hospital beds are not distributed equitably in the country.** Four regions fall below hospital bed national average, and of which 3 were below national average even a decade ago. The inequity in hospital bed distribution was evident: Volta (1.10) and Eastern (1.10) regions were able to improve their standards (among the most privileged regions), while the Northern (0.51) region continued to lag far behind all other regions. There is need to reduce inequity, and in particular to provide attention to the needs of the Northern region.

53. **Maternity beds almost meet WHO standards, but they are inequitably distributed in the country.** On average Ghana estimates about 26 maternity beds per 1,000 deliveries in 2010, and these are close to WHO standards of 30 to 32 maternity beds per 1,000 population. Rural areas had a higher ratio (39) compared to urban areas (24). While NGOs and private for profit offer a high ratio of 46-54 maternity beds to 1,000 deliveries, public sector and mission offer below national average (on average about 23 maternity beds per 1,000 deliveries). Government district hospitals and maternity homes report the lowest maternity bed ratios, while government health center report higher ratios. While Upper West and Volta regions report above national average, 6 regions report slightly below national average (ranging between 22 and 25). (EmONC Study, 2011).

at least 150 (ranging 100-200) hospital beds per regional hospital and at least 75 (ranging 50-100) hospital beds per district hospital. However, hospitals and hospital beds need to be accompanied by appropriately trained skilled HWs and appropriate recurrent budgets.

¹⁰ This does not include information from the private sector, as there is little tracking of private sector health facilities. Further, the hospital beds reported here may include hospital beds in psychiatric hospitals, and in primary health care facilities, as clinics with beds and located in districts are often branded as district hospitals.

Table 6: Regional Distribution in Health Facilities, 2008

REGION	HOSPITALS /DISTRICT	BEDS / DISTRICT	BEDS / 1,000 PEOPLE	HC+ / DISTRICT	CHPS/ DISTRICT
WESTERN	1.15	156	0.79	10.69	4.31
CENTRAL	1.00	139	0.94	6.08	3.31
GREATR ACCRA	2.33	767	1.07	12.17	0.67
VOLTA	1.33	148	1.14	13.47	1.27
EASTERN	1.06	157	1.12	11.29	2.59
ASHANTI	1.90	196	0.84	8.76	0.19
BRONG AHAFO	0.89	97	0.81	7.26	0.58
NORTHERN	0.72	73	0.56	8.22	0.56
UPPER EAST	0.75	102	0.81	8.75	6.88
UPPER WEST	0.75	88	1.05	9.25	4.88
GHANA	1.17	160	0.91	9.41	2.07
Falls short of national average			5/10	6/10	5/10

Source: Ghana Health Service, CHIMS, 2009

54. *Quality of infrastructure is variable across facilities and across regions.* Most health facilities had electricity and water, although, several relied on potable water. Teaching hospitals were in the worst condition for both electricity and water (EmONC Study, 2011).

55. *Infrastructure policies are in place.* The Ghana Health Service and Teaching Hospital Act was approved in 1996. The national strategy for hospitals (2001) and the national strategy for community based health care (2005) were also developed. Given the decentralized environment, the strategy called for strengthening referral networks with a district hospital in every district (170)¹¹ and a regional hospital in every region (10). The health delivery system required several community based services to link up to primary health care clinics at the sub-district level, and which were to link up to the district hospital with a package of basic health services, including internal medicine, basic surgery, obstetrics and gynecology, and pediatrics. In turn the regional hospital would be the referral point offering the basic health service package of the district hospital and some specialist care. The concept of the “gatekeeper” system was also introduced at the primary health care level.

56. *A rational and strategic capital investment plan is required.* The “Service Availability Mapping” (SAM, 2005) study was undertaken, and reported geographical inequity in the distribution of health facilities. However, the study did not comprehensively capture the capital investment needs in the country. Subsequently, the Emergency Obstetric and Neonatal Care study (2010-2011) was commissioned and is expected to provide comprehensive situation analysis of capital and human resources in facilities offering maternal and child health services. The study findings are expected to be reported in 2012 (GHS, United Nations Children’s Fund [UNICEF], United National Population Fund [UNFPA]), and are expected to feed into the Capital Investment Plan.

¹¹ At which time, there were only 110 districts.

57. ***Relevant infrastructure investments have been made in the Ghanaian health sector.*** The Hospital Strategy was developed in 2001. Available data shows that current average bed capacity is rather favourable, also for the next 5-10 years. Although hospital efficiency indicators have improved, especially after 2006, there are still significant opportunities for efficiency gains in the utilization of beds. However, improving efficiency in bed use requires that the current imbalances in service delivery be adequately addressed. Available data suggest that the primary care uptake at the sub-district level is lagging behind. From the health services planning point of view, and considering the importance of an equitable use of scarce resources to make tangible health gains, priority should be given to investments at the sub-district level.

58. ***Efficiency gains could be achieved through ‘systemic’ measures,*** for example: (i) establishing efficient public-private partnerships with the CHAG and the for-profit sector, to ensure that available resources are optimally used; (ii) shifting human resources to the primary care level, not only at the level of health centres, but also at the community level (expansion of the CHPS¹²); (iii) strengthening the ‘gatekeeper’¹³ function of the system to reduce by-passing primary health clinics, and to reduce moral hazard¹⁴; and, (iv) identifying and securing new sources of funding for infrastructure investments in primary care.

59. There is need to improve planning standards on health infrastructure investments, and to better coordinate the investment efforts with the non-public sector, as they are significant contributors in the provision of health care.

60. Particular attention is also required to ensure appropriate planning and distribution of medical equipment, and especially for lower level health facilities. There is need to address the transport (e.g. ambulance) situation. The analysis was not able to review options for private sector partnership for ambulance services.

61. ***Prioritization is required in the Capital Investment Plan.*** Since 1997, MOH has set-up 5-year capital investment plans, which correspond to their 5-year Programs of Work. The first such plan was developed for 1997-2001. These plans cover the construction of health related buildings and their maintenance, the provision and maintenance of equipment, and the organization of transport to facilitate people’s access to appropriate levels of health services. The Capital Investment Plan II review (2006) noted critical imbalances in the capital investment program between regions. Imbalances were seen in operational funding and human resources. Most capital investments projects (for infrastructure, equipment and vehicles) were funded by external resources. Capital budget was allocated for some hospital investments, but have been under-used. It is not clear whether the low budget use was a result of limited releases. The MOH set new priorities for Capital Investment Plan III (2007-2011). The framework for the capital investment program III is focused on increasing equity and access to quality health care, shifting resource allocation at the primary level and strengthening decentralization. It encourages the use of alternative financing mechanisms and increases engagement of the private sector.

¹² The Community-based Health Planning and Services (CHPS) Initiative has employed strategies tested in the successful Navrongo experiment to guide national health reforms that mobilize volunteerism, resources and cultural institutions for supporting community-based primary health care. http://pdf.usaid.gov/pdf_docs/PNACT263.pdf

¹³ Gatekeeper: a health care professional, usually a primary care physician or a physician extender, who is the patient's first contact with the health care system and triages the patient's further access to the system. <http://medical-dictionary.thefreedictionary.com/Gatekeeper>

¹⁴ Moral hazard arises because an individual or institution does not take the full consequences and responsibilities of its actions, and therefore has a tendency to act less carefully than it otherwise would, leaving another party to hold some responsibility for the consequences of those actions. http://en.wikipedia.org/wiki/Moral_hazard

Box 2: What are some of the options available for Ghana to address the shortage of health facilities and the inequity in distribution of health facilities/beds?

For hospitals, options are:

- Develop partnership between public and private sectors (for planning, and for service delivery)
- Build-operate and transfer (BOT)
- In-source hospital management

For clinics, options are:

- Outsource/develop performance based contracts with NGO/mission clinics in underserved areas

For CHPS, options are:

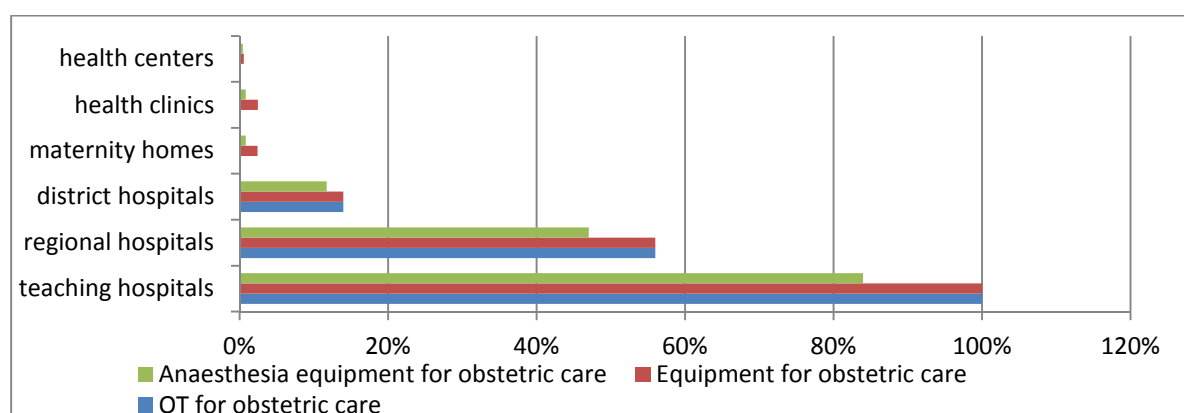
- CHPS was originally initiated as a community-based initiative; however, its community-based essence seems to be overtaken by investments into building the CHPS compounds. It will be important to revive the original concept.

Source: Author

2.1.2. Medical Equipment

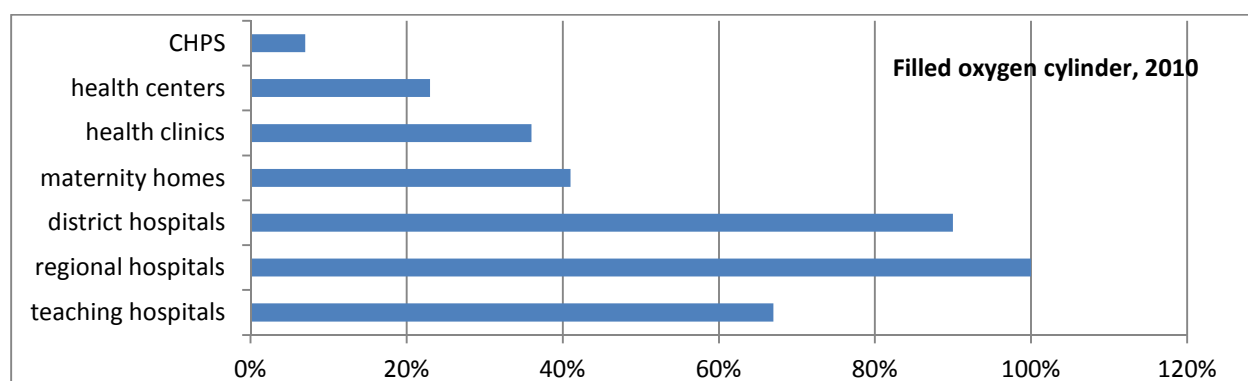
62. **Limited access to medical equipment at primary health care facilities.** The situation of access to basic medical equipment remains dire especially for lower level health facilities. A recent survey (2010) suggested things have not improved much in the past decade. In 2003, only 30% of primary health care facilities had oxygen, and in 2010, less than 40% of primary health facilities had oxygen. In 2003, less than 30% of primary health facilities had the required maternity care equipment package, and while in 2010, the situation seems to be worse. Regional differences were also evident: Upper East and Northern regions remained the worst on equipment management, while Ashanti region scored the best (review of the equipment management program (2003)). Several hospitals with designated services for emergency obstetric and neonatal care reported that they were unable to provide C-section (38%), assisted vaginal delivery (32%) or blood transfusion (41%), as they did not have appropriate equipment/supplies or drugs (2010).

Figure 7: Facilities with access to obstetric care related equipment, 2010



Source: Emergency obstetric and neonatal care, 2011. Note: OT = operation theater

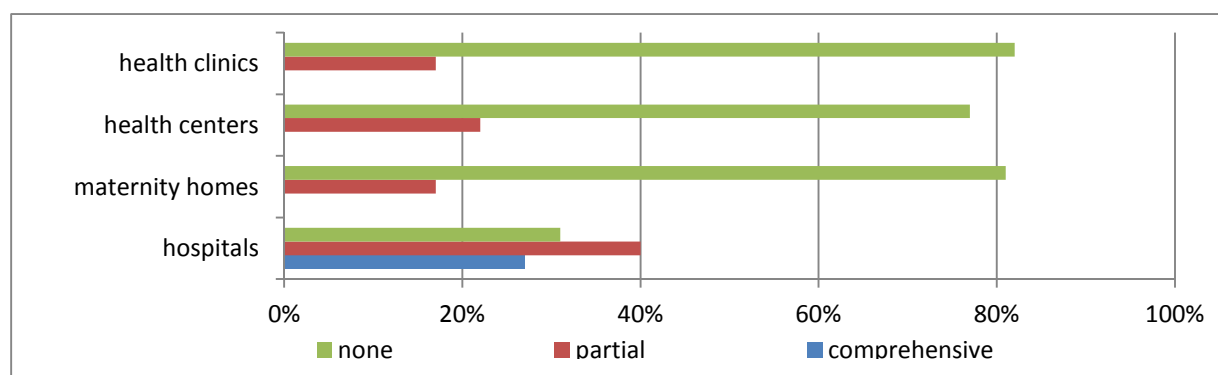
Figure 8: Facilities with access to filled oxygen cylinders, 2010



Source: Emergency obstetric and neonatal care, 2011

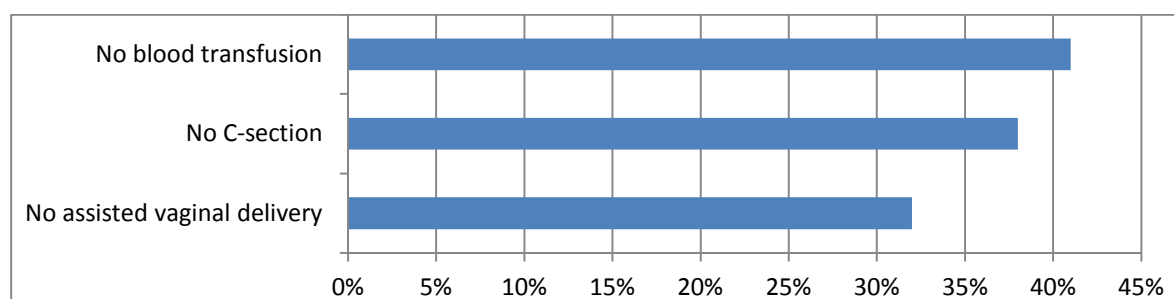
63. **Quality of care is variable across type of health facilities.** Ghana health facilities do not have the appropriate standards of care: most health clinics, health centers and maternity homes did not have appropriate standards for Emergency obstetric and neonatal care. Of the facilities providing deliveries, while most provided parenteral oxytocics, most did not provide assisted vaginal delivery. Upper East had the worst quality for Emergency obstetric and neonatal care (EmONC, 2011).

Figure 9: Availability of Emergency obstetric and neonatal care and health facilities, 2010.



Source: Emergency obstetric and neonatal care, 2011

Figure 10: Limited Services offered in health facilities due to limited access to equipment, drugs or supplies, 2010



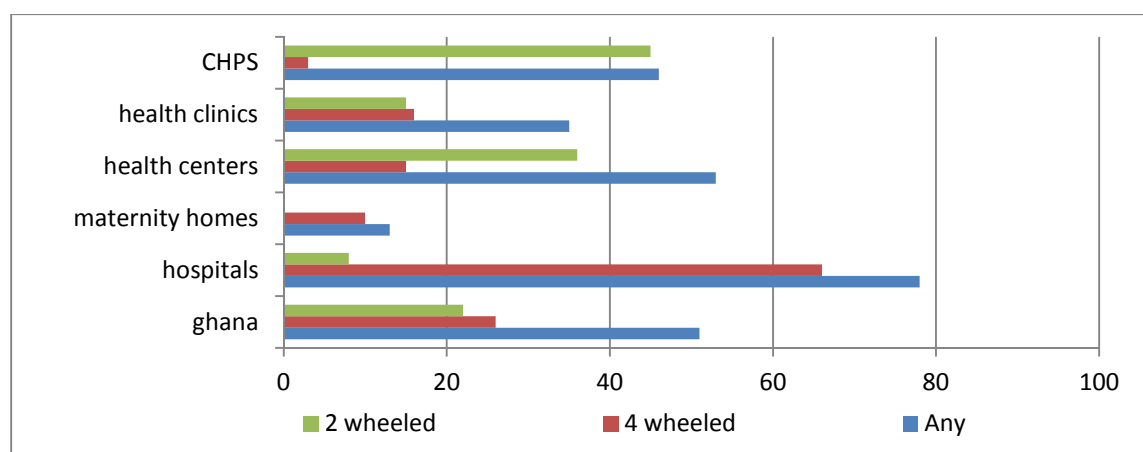
Source: Emergency obstetric and neonatal care, 2011

64. **Medical equipment policies are in place, but implementation is weak.** A Ghana Equipment Policy was developed in 1996, and the policy was clear in its deliberation, but the roles and functions of the various regulatory agencies are not clearly defined. Procedures and financing have not been clear. The details of medical equipment are not defined, such as, the equipment lists concentrated on regional and teaching hospitals, and not on district hospitals, clinics or CHPS. Procurement processes of high level equipment were centralized at MOH, while low cost equipment procurement were decentralized to facilities, which were to finance its procurement not through budgets but through the internally generated funds (IGF) (1997). Further, procurement was to be through manufacturers who were certified local distributors with in-country technical support capabilities: but as many as 70% of equipment was procured through agents and integrators. Further, budgets for equipment maintenance and replacement were often limited, with capital replacement (depreciation) plans missing.

2.1.3. Transport

65. **Vehicles and ambulances need replacement.** MOH has a large fleet of vehicles, and 90% of them are used by GHS, which has 1,541 vehicles and 6,100 motorbikes (2008). MOH operates the National Ambulance Service running 34 ambulances (10 at regional levels, and 24 covering the 170 districts). However, MOH vehicles were reported to be over 10-years old, needing replacement. In 2009, GAVI HSS funds replaced some of these vehicles. A proper needs assessment could inform planning and budgeting. As many facilities had limited access to transport, they made arrangements with the private sector (taxis, buses). There is no proper assessment to understand how successful a program this has been, however, the EmONC study (2011) reported that 33% of facilities reported having used the national ambulance system, while 51% reported having arranged transportation for emergency referrals with private parties. While the Northern region reported the highest access to transport, the Central region reported the lowest access to transport.

Figure 11: Access to transport at health facilities, 2010



Source: National Assessment for Emergency Obstetric and Newborn Care. Ghana. November 2011.

66. **Transport policy and plan are in place, but financing is a challenge.** A Transport Policy has been developed (2004), and Ghana has initiated a model transport management system (TMS) that was emulated by other African countries (South Africa, Malawi and Mozambique). Developed in 2004, the National Ambulance Service became a national level program by 2008. However, budgeting for training of its staff has been a challenge, which has affected quality of services. Further, public sector vehicle workshops are often under-equipped. Given the various constraints it faces, the public sector works closely with the private sector, in areas such as vehicle maintenance.

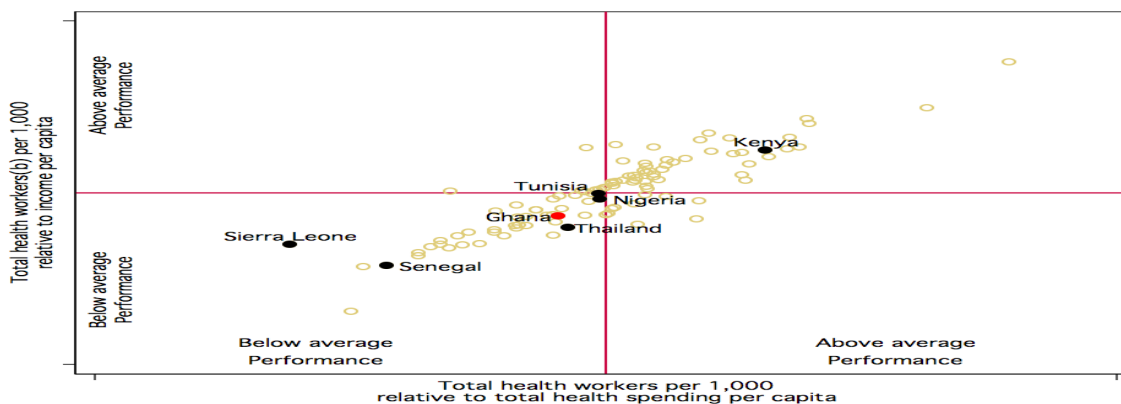
2.2. Human Resources for Health

2.2.1. Health Workforce

67. **HRH levels do not meet international benchmarks.** The World Health Organization/Joint Learning Initiative (WHO/JLI) benchmarks recommend countries have at least 2.02 to 2.54 (average 2.3) essential HWs per 1,000 population. Essential HWs include general physicians, nurses, midwives, community health nurses and medical assistants. Estimates of Ghana are about 1.24 essential HWs per 1,000 population (2009).

68. **When compared to other countries, Ghana does not fare too badly in its overall HW ratios, but does not fare well when it comes to its clinical staff ratios:** Ghana shows about 1.93 HWs per 1,000 population, as compared to Rwanda (1.22), India (1.95) and Thailand (3.0). However, a significant proportion (40%) of Ghana's HWs is non-clinical. On the other hand, among clinical staff, Ghana does not necessarily fare as well as its neighboring countries: Zambia (0.59 nurses and 0.23 midwives per 1,000 population), and Cote d'Ivoire (0.13 physicians and 0.34 nurses per 1,000 population). Furthermore, about 50% of Ghana's clinical HWs are from among the nursing cadres (nurses/midwives/community health nurses/ health assistants), as compared to 3% physicians (2009).

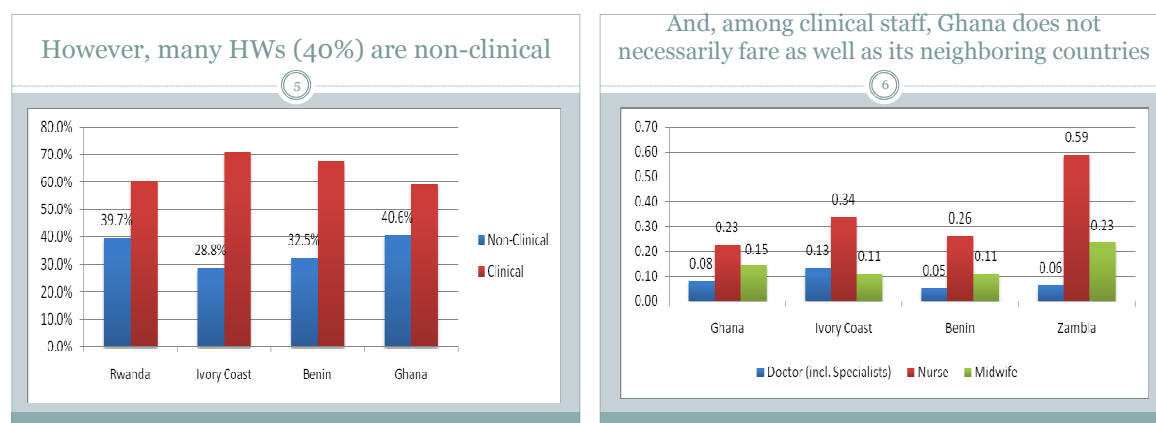
Figure 12: Health worker to population ratio relative to total health spending and income, 2009



Sources: World Development Indicators & WHO, 2011

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

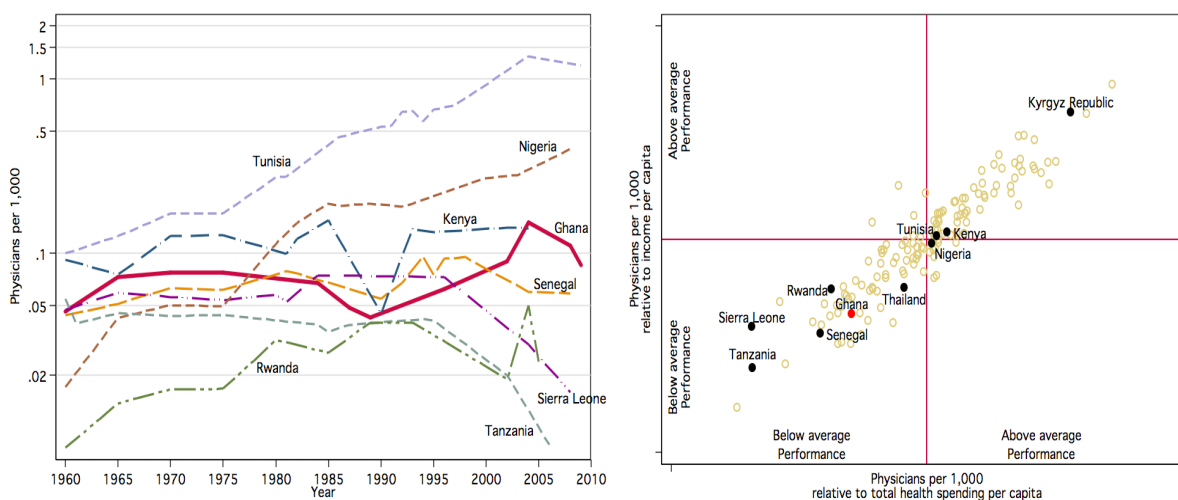
Figure 13: Ghana, Health Worker Profile



Source: Benin and Zambia [Zambia not shown in figure]: CSR-Health 2009. Côte d'Ivoire: CSR-Health 2010. Ghana: Ministry of Health 2009. Rwanda: CSR-Health 2009; Rwanda Ministry of Health.

69. **Physician to population ratios have improved, but remain low relative to its comparators.** Ghana is one of the highest producers of physicians in the SSA, but after having lost its physicians to international demands, their changing policy has helped retain physicians to stay in the country. Ghana's physician ratio (0.1 per 1,000 population, 2009), has improved over time, and it now lies within the HRH international benchmark (ranging between 0.1 [WHO] and 0.6 [WHO-JLI]) but remains on the lower end of that benchmark. Ghana's nurse ratio (0.39 nurses per 1,000 population, 2009) has improved over time, and are within the HRH international benchmark (ranging between 0.2 [WHO] and 1.9 [JLI-WHO]), but somewhat on the lower side of the range.

Figure 14: Physician to Population Ratio, International Comparison



Sources: World Development Indicators & WHO, 2011

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

70. **The public sector employs the largest proportions of HWs.** The growth of non-public sector staffing is however not clearly understood. While MOH reports about 148 doctors in the private for-profit sector in 2006, recent reports suggest that this may have grown to over 500 (Ghana Medical and

Dental Council (2010)). However, the information on the non-public-sector remains unclear and inconsistent across various sources.

Table 7: Type of Ownership of Health Facilities and Health Care Providers, 2006

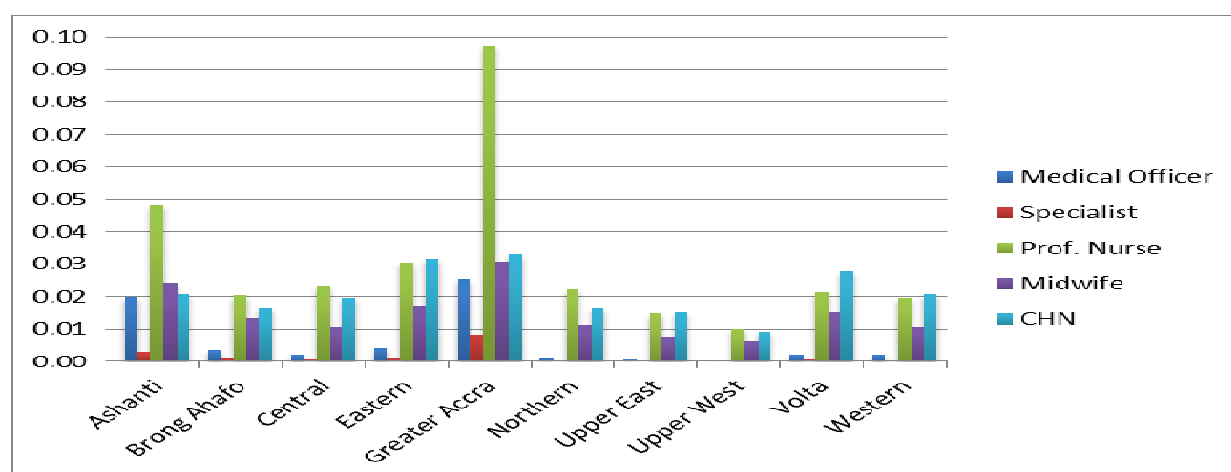
Type of Ownership	Types of Health Care Providers, 2006						
	All total	total	Doctors	Nurses	Midwives	CHN	% owner ship
Total	42214	15615	967	6286	2510	5852	
MOH	18977	12208	614	3730	2425	5439	78%
quasi-public	3749	424	107	255	54	8	3%
CHAG	6211	1100	98	885	31	86	7%
private for-profit	4660	1661	148	1198		315	11%
Others	1028	222		218		4	1%
% of total			6%	40%	16%	37%	
% private for-profit	11%	11%	15%	19%	0%	5%	
% private and missions	26%	18%	25%	33%	1%	7%	

Source: MOH. 2006. Human Resources Policies and Strategies for the Health Sector (2007-2011)

71. ***The public sector decisions on HRH are highly centralized.*** HRH functions are uniquely distributed across agencies, and at various levels of the health system. Core management authority related to HRH in Ghana remains highly centralized, and lies with the MOH, GHS, CHAG - more limited - and Teaching Hospitals. Limited decision making power over HRH lies at the regional and district level, where the degree varies between CHAG and GHS. This leaves HW-related decision-making at the facility level extremely limited. The highly centralized decision making power is problematic in the decentralized environment (also discussed under the section on decentralization and governance) and does not quickly and adequately respond to HW needs (firing and hiring). Indeed, capacity weaknesses are evident in the MOHs Human Resources Directorate Management and administration unit; at the GHS, the primary challenge faced by the human resource directorate is the lack of a standardized human resource information system.

72. ***Skewed distribution of HWs regionally.*** The distribution of health workers is highly concentrated towards richer, more urban areas in Ghana. The greatest densities of HWs per 1,000 population are located in the Greater Accra, Ashanti and Volta regions. Medical Officers tend to localize in the Ashanti and Greater Accra regions while professional nurses, midwives and community health nurses tend to be spread-out across all regions. The Northern regions had the lowest ratios.

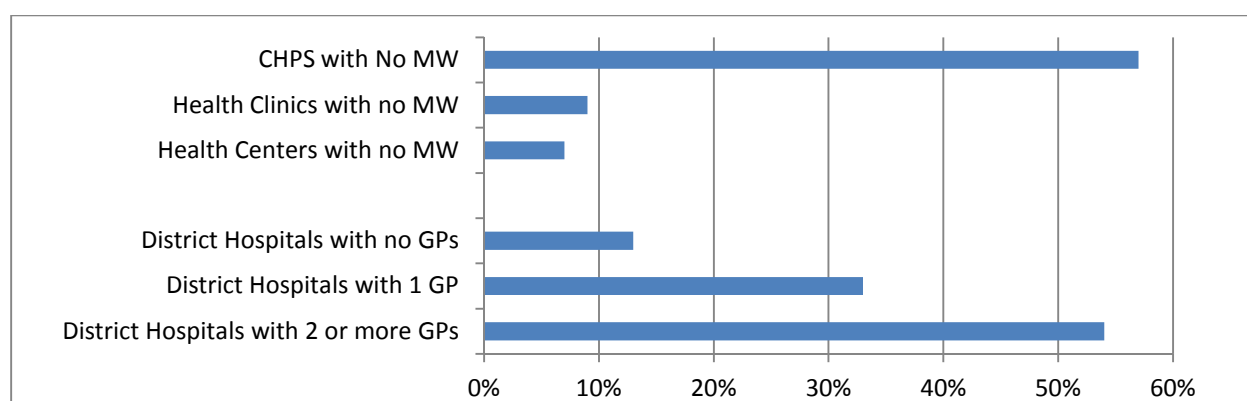
Figure 15: Ghana, geographical distribution of Health Workers



Source: Ministry of Health, 2009

73. **Critical staff is missing in many facilities.** A district hospital survey found, 54% with 2 or more general practitioners, 33% with one general practitioner, and 13% with no general practitioners (2010). A survey found that while 7% of health centers lacked midwives, 9% health clinics lacked midwives, 57% of CHPS lacked midwives (2010). However, Greater Accra had the highest number of midwives attending 1,000 deliveries, while Central the lowest (2010).

Figure 16: Mal-distribution of staffing in the public health facilities, 2010



Source: National Assessment for Emergency Obstetric and Newborn Care. Ghana. November 2011.

74. **Most HWs are concentrated in urban areas and at hospitals.** Overall, HWs per bed ratio is higher in urban (0.89) than in rural (0.43) Ghana. Urban hospitals have more HWs per bed than rural for all forms of ownership, but particularly for government hospitals. When it comes to the public sector, most GHS HWs are in the urban areas: 1.11 HWs per bed in urban areas, versus 0.41 HWs per bed in rural areas.

75. **There is a higher ratio of nurses to physician in urban areas.** The government facilities have the best nurse to physician ratio (3.8 nurses and midwives to a physician), followed by that in the for-profit private facilities (4 nurses and midwives to a physician). The ratios in the rural areas are variable but much below urban areas.

76. ***Public and for profit private HWs cater to urban clientele whereas, missions (e.g. CHAG) and chemical sellers cater to rural clientele.*** Government facilities are the most endowed with HWs in the urban areas, followed by for-profit, while CHAG facilities are the most endowed with HWs in the rural areas, followed by public facilities. Chemical sellers by their number appear to represent the greatest and most accessible source of services in rural and urban-poor areas.

77. ***CHAG has an equal presence in urban and rural areas.*** CHAG, a mission service, receives subsidies from the MOH to provide services to rural and underserved areas. CHAG has a presence in rural and urban areas and is able to more or less provide an adequate number of staff per bed (0.5 HWs per bed in both rural and urban area) compared to public facilities (0.41 HWs per bed). However, more of their physicians are concentrated in the urban areas (19 nurses and midwives to a doctor in the rural areas, versus 9.8 nurses and midwives to a doctor in the urban area). CHAG hospitals offer a broader range of services than government hospitals in rural areas.

78. The observed picture on the urban biased distribution of many cadres, particularly higher level cadres, can be explained by many reasons.

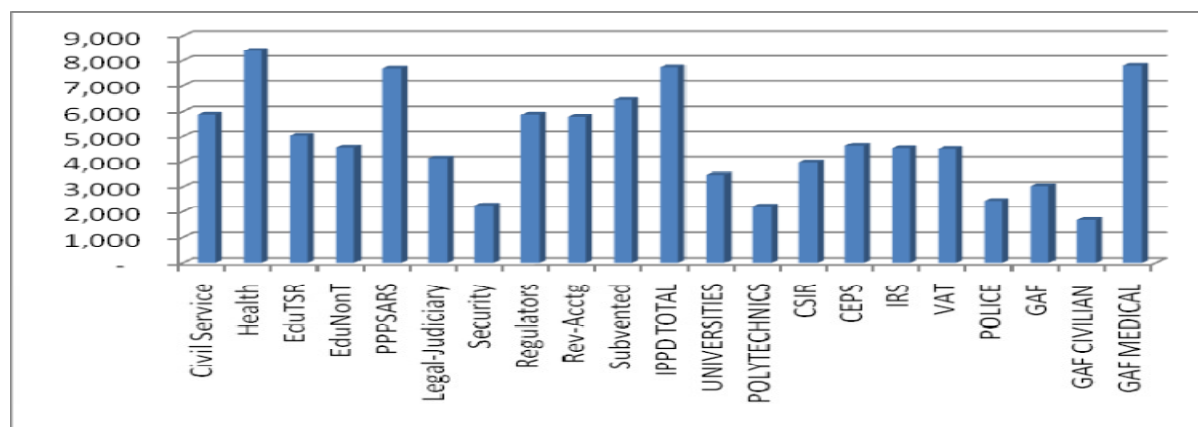
79. First, health training institutions in Ghana are not conducive to produce rural inclined cadres, although some improvements are noted on that front. Medical education has traditionally been an urban experience in Ghana, with the two oldest medical schools (University of Ghana and Kwame Nkrumah University of Science and Technology [KNUST]) each located in major metropolitan areas. The recent addition of two medical schools at Tamale and Cape Coast suggests greater commitment by the MOH to a regional distribution of training.

80. Second, the low entry of HWs into rural areas after graduation is linked to an inadequately perceived monetary and nonmonetary compensation. There are critical distinctions between the motivation of doctors and nurses to choose their jobs within the public sector. Medical doctors can apply for any open public sector post. Greater access to mentoring and faster promotion in urban areas motivates many doctors to avoid serving in rural areas. In addition, the poor tracking of GHS contracts and unclear terms of appointment further motivate many cadres to avoid rural service. Nurses are more typically bonded to the local or regional communities where they trained, or to districts that paid for their education: approximately 80% of nurses trained in a given region are retained in that region.

81. Finally, transfers from rural to urban areas are complicated by bureaucratic procedures, and often delayed, but loop-holes exist. Because of cumbersome administrative procedures to process transfers from rural to urban areas, many HWs are unable to migrate to urban centers. Delayed transfers, lack of transparent procedures, and lack of common guidelines are the most significant problems; MOH transfer guidelines do exist, but are neither widely known nor followed. There is an overarching problem of poor human resource information systems and low accountability of doctors who exit their posts before completing a contract.

82. ***Wage rates (remuneration, incentives) have almost reached regional averages, but variations exist.*** The public health sector was able to negotiate higher salaries, and was able to attain a median “base” salary that was higher and above the national median “base” salary in the public sector in 2008. This too has helped retain some skilled HWs in the country. Salaries have increased over time, and today, HWs earn the highest (average) within the public sector. However, medical officer salaries increased much more than those of other HW cadres (e.g. nurses).

Figure 17: Average “Base” Salary across different public sector services and institutions, 2008 (GHC Thousand)

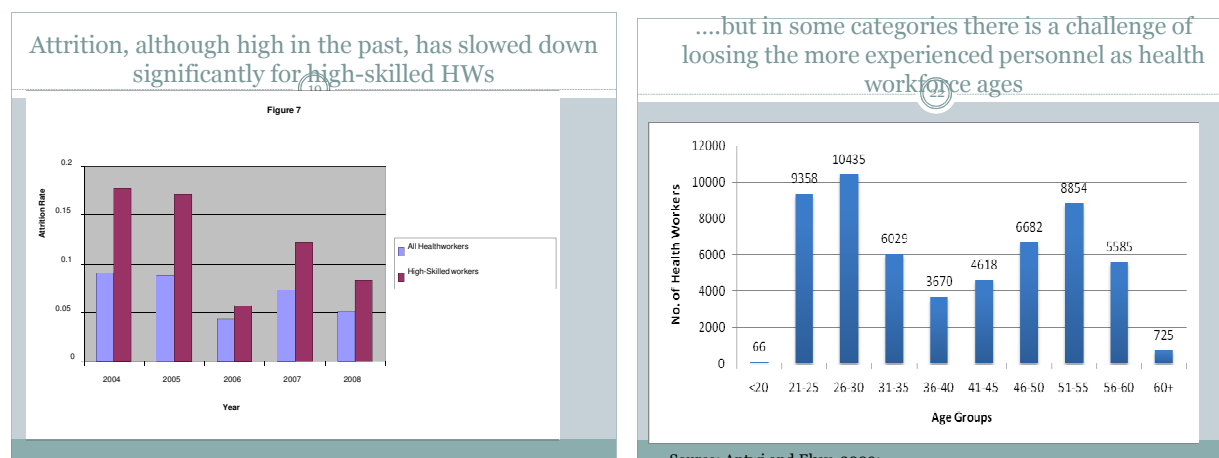


Source: Cavalcanti, 2009

83. ***Emigration for all HWs cadres has declined steadily since 2004.*** Until recently outmigration, significantly affected the levels of stock and was a major cause of drainage of HWs. Compared to other countries, Ghana has the largest number of domestically trained physicians living abroad, indicating the extent of outmigration.

84. ***Attrition, although high in the past has slowed down significantly for high-skilled HWs.*** Retirement of staff from the health sector stands as the most consequential reason for exit out of the national health labor market between 2004 and 2008. In some categories there is a challenge of losing the more experienced personnel as HWs age – e.g. average age of midwives is in the 40s and 50s range, and closer to retirement age. Few are enrolling into the midwifery program.

Figure 18: Ghana, Health Worker Attrition Profile



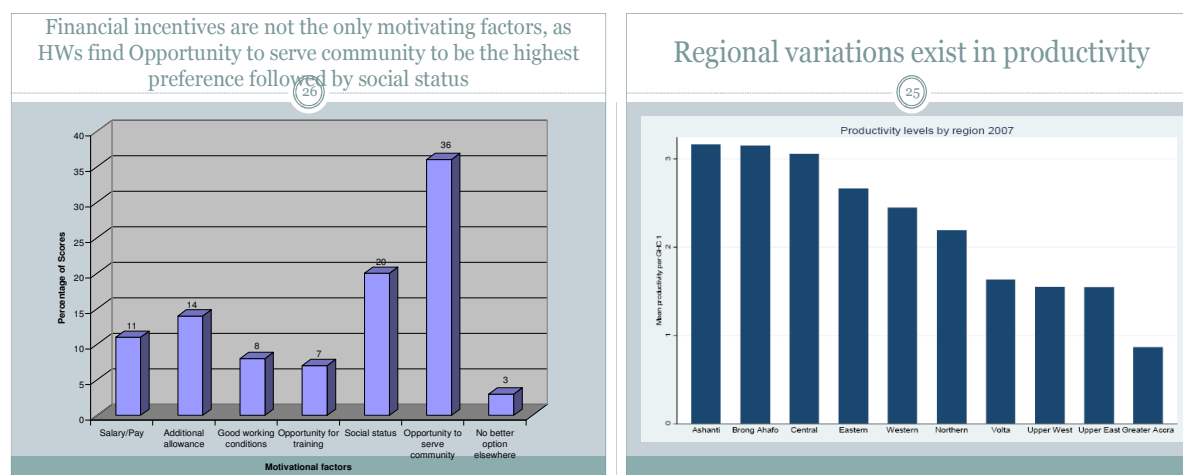
Source: Phillips (2009), based on data from Controller Accountant General’s Department payroll database.

85. ***Absenteeism may be a problem,*** although there is insufficient evidence: medical officers were more likely to be absent from work than professional nurses, who in turn, were more likely to be absent than auxiliary staff.

86. **HW competency is a concern:** total performance scores for all clinics remained well below maximum possible scores, and there were widespread deficiencies in technical skills. Quality of clinical care was sub-standard, and quality of care scores was lower in private versus public sector.

87. **Regional variations were found in productivity.** High variations were found in HWs productivity across regions/districts, and the highest productivity was found in Ashanti, Brong Ahafo and Central regions, while lowest productivity was found in Greater Accra. Financial incentives were not the only motivating factors, as HWs found opportunity to serve community to be the highest preference followed by social status (result from a study).

Figure 19: Ghana, Incentives to Motivate Health Workers and regional variations in productivity



Source: Witter, Kusi, Aikins and Arhinful, 2006

Source: Addai and Bosomprah, 2007

88. **The Government updates the Human Resources for Health Strategy every 5-years.** In 1992, MOH developed the health staffing norms. In 2002, MOH developed its first Human Resources for Health (HRH) Strategy (2002-2006), and in 2007, its second HRH policy and strategy (2007-2011). MOH is now in the process of developing the third HRH strategy (2011-2015). In the second strategy, its main concerns were inequity in distribution of health workers (HWs) and the low competency and productivity of its HWs. The 5-year strategy aimed to: (a) improve rational production and equitable distribution of HWs, (b) focus its HWs on promotion, prevention and regenerative health, (c) focus on HWs for MDG, (d) provide equal opportunities in training, recruitment and deployment, (e) create an enabling environment for HWs, and (f) preserve and create improved ethical standards among the HWs, to ensure clients and staff rights.

89. **Strategies for HW retention.** Several HRH retention strategies have been instituted in Ghana, mostly giving incentives to HWs, such as tax waiver on import of vehicles, housing benefits, payment of additional duty hour allowances (this scheme has been abolished), and consolidated salaries. The impact of each of these incentive schemes have not been assessed on HW retention. Further, MOH has instituted a bonding scheme -- a plan to provide financial support for the pre-service training of certain HWs. Sponsorship would determine the needs and positioning of the HWs. Sponsorship could be provided by local governments, faith-based institutions, chieftainship, or national government support, or private/fee-based support. The sponsored HWs would be bonded for a maximum of five-years.

90. **Strategies to address inequitable distribution of HWs.** Two critical decisions were made: (i) to scale up the production of medical assistants, clinical officers, and physicians assistants at the public

facilities, and who are to be located at district and sub-district level facilities. (ii) In 2009, Ghana College of Physicians and Surgeons made rural service pre-requisite for specialization.

91. ***Strategies to improve access to health services.*** Two critical decisions were undertaken: (i) to sign a memorandum of understanding with mission (e.g. with CHAG in 2006) in partnership to provide services in rural and remote areas, and (ii) to allow public financing for private provision with the adoption of private providers in the NHIS. The private sector makes up a significant part of the HWs in the country and caters to both urban and rural areas.

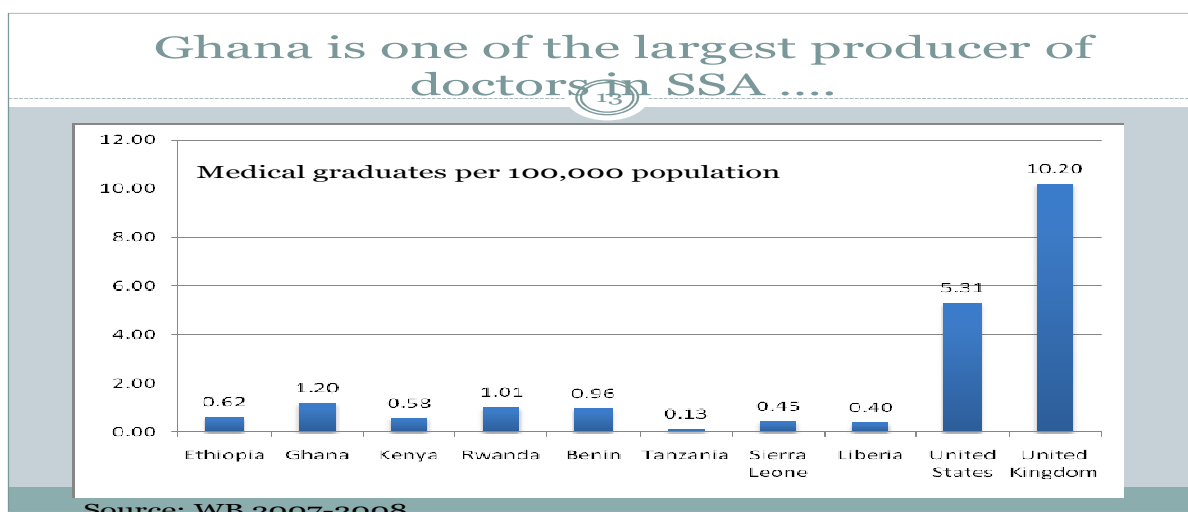
2.2.2. Education

92. ***Ghana has developed strategies for a more egalitarian distribution of medical staff.*** Pre-service training is shared between the Ministry of Education (MOE) and MOH, however, no comprehensive training policy is developed to clarify roles and to address training issues. The first HRH strategy (2002-2006) provided directions on pre-service training, but did not provide clear directions to the training institutions. In order to improve competencies and to improve distribution of staffing, MOH has been able to intervene to extend the house-job period (for example for physicians from one to two years) and to decentralize the training, whereby house-jobs are shared at teaching hospitals and at regional/district hospitals. MOH hoped to get more staff to stay on in the regions and districts, rather than to be concentrated at the tertiary levels. MOH also established an inter-agency committee to distribute staff based on annual recruitment plans and available staff.

93. ***The situation of HWs can in part be explained by the limited production of HRH by health training institutions, and significant exit, or attrition of HRH out of the national health labor market.*** Ghana is one of the higher producers of HWs particularly of nurses and medical doctors when compared to countries elsewhere in SSA. The production of medical doctors in Ghana, 264 medical graduates per year, is considerably higher than that of the majority of countries in the region. For both nurses and medical doctors, the current level of output reflects a steady increase in enrollment into medical school in recent years: enrollments into nursing programs for example tripled between 2000 and 2007. The increase observed in enrollment for most cadres is linked to the recent and relatively rapid expansion of pre-service training institutions and the development of innovative and new training and degree programs.

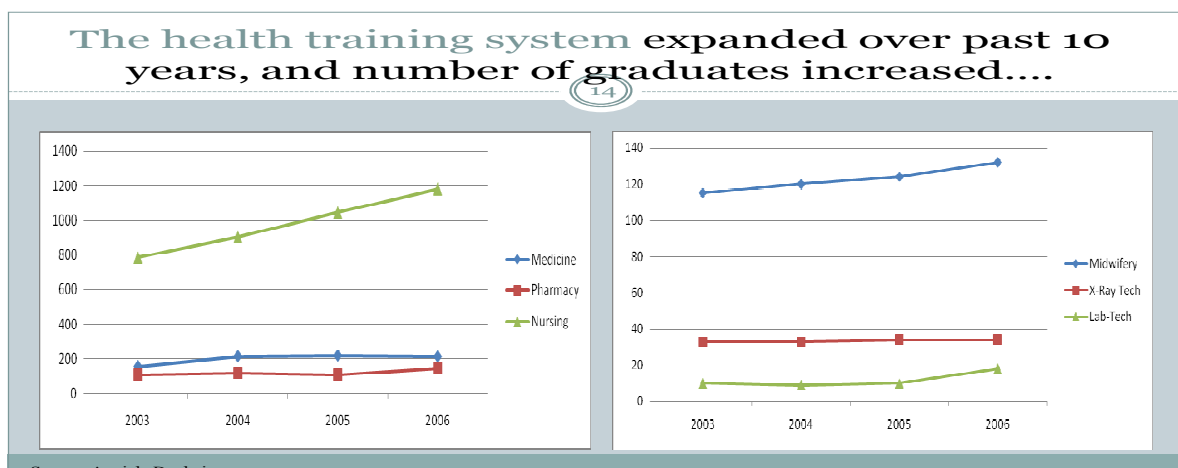
94. ***Ghana is one of the larger producers of physicians in the SSA.*** Ghana produces on average 1.20 medical graduates per 100,000 population, however, this does not respond to its needs. In the past many physicians have gone overseas. This situation has changed recently, but it still does not address the gaps.

Figure 20: Ghana, Production of Physicians, International Comparison



95. **Enrollment for some HW cadres increased while others did not.** Enrollment of nursing students had increased to respond to both international and national demands, and the number of nurse graduates increased by 50% (2003-2006). Community health nurses and health assistants has not seen significant changes.

Figure 21: Ghana, Health Worker Production (2003-2006)



Source: Appiah Denkyira, 2007

96. **Training school capacity is a key explanation for inadequate stock, distribution and performance.** As of June 2010, at least 82 schools, public and private were involved in the training of health workers. Most of the schools in Ghana are already functioning at and above maximum capacity and thus significant investments in the public sector have to take place in order for the schools to be able to scale-up other medical disciplines as well as increase current trends. In addition, insufficient equipment and the lack of running water in many laboratories is also a concern. Finally, significant variations exist among selected schools on qualification and vacancies of the academic staff.

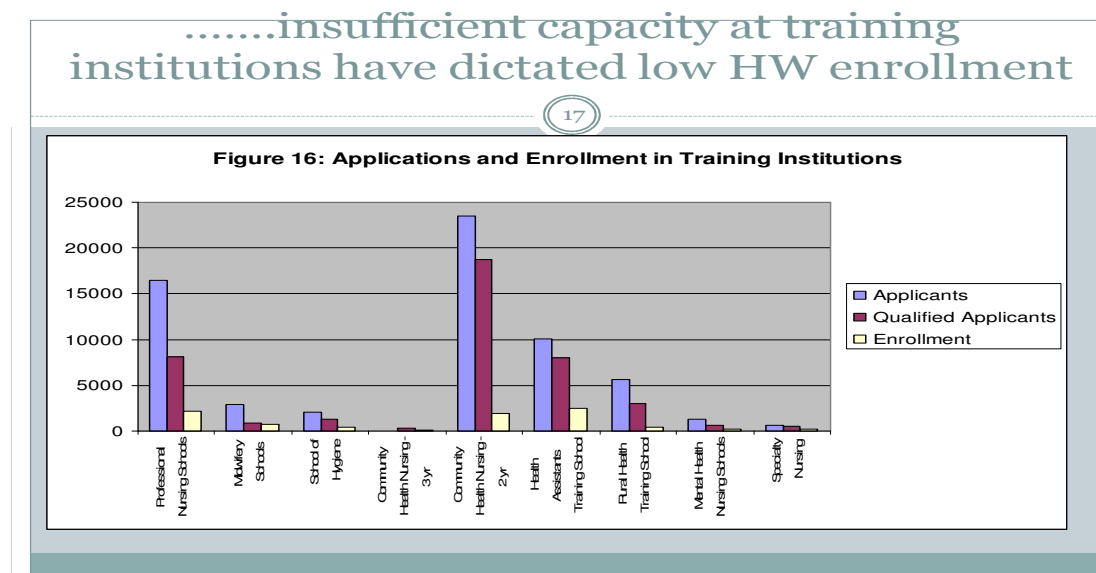
97. **The Private sector has responded to shortage in HWs.** The public sector is heavily engaged in the production of HWs. MOH developed 21 training institutions (2002-2006), including post-graduate

physician training and the training of health assistants. The University admissions increased by 20% and the health training school admissions increased by 50% (2001-2006). However, the growth in admissions was not compensated for with a growth in physical and human capital investment and resulted in a huge burden on the training institutions. Meanwhile, given the shortages in the market, the private sector responded by setting up pre-service training institutions: 7 new institutions were developed for nursing, medical laboratory technologists and health assistants. Nurses and midwives councils were expected to oversee the quality of training.

98. *Access to HW training institutions has increased overall, although, variations exist by specialties.* There are insufficient medical schools. However, recently, there has been a growth in schools offering pre-service education for nursing/midwifery/health assistants. While most medical schools are skewed in favor of urban areas, and therefore attract students from urban areas, who stay in urban areas, nursing/midwifery schools are more egalitarian in location and therefore more egalitarian in recruitment and placement. Financial access for student is generally good, as most public training institutions for medical and para-medical care offer subsidized fees. However, generally, capital investments are low and buildings, equipment, etc are not maintained. Budgets have not grown much over time, and training institutions are relying more on IGF (student fees). As budgets decline, sustainability of these programs may be a concern.

99. *Quality of teaching at pre-service training institutions is a challenge.* In several schools, despite a large qualified pool of applicants, few students could be enrolled, given the limited capacity of the training institutions. As enrollment increased in some schools, without a parallel increase in investments, several training institutions suffered in quality, resulting in: limited space, inadequate equipment, lower teacher-student ratio, and deteriorating infrastructure. A study showed that higher-level institutions faced a shortage of lecturers (could be ranging between 14% and 75%).¹⁵

Figure 22: Ghana, Health Worker Pre-Service Training Institution Enrollment



Source: Phillips 2010

¹⁵ Human Resources Background Study for the CSR, World Bank, 2009

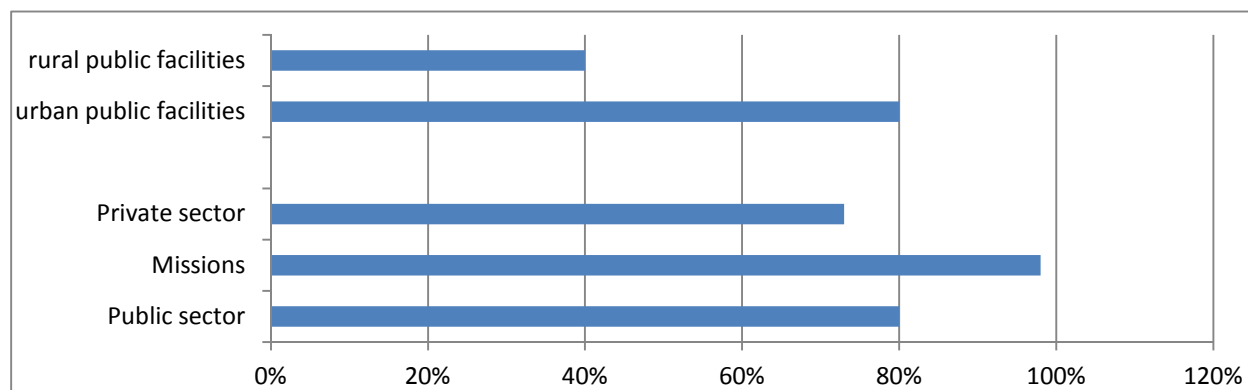
2.3. Pharmaceuticals

2.3.1. Supply

100. *The growth of retail pharmacies has been exponential in the last decade.* Drugs are retailed through both public (55%) and private (45%) sector facilities in Ghana. With an estimated retail market of US\$300m, it is expected that the growth of this market will continue. The government estimates over 10,000 private licensed and non-licensed chemical sellers are currently operating in Ghana. By law, new pharmacies or chemical sellers need to respect a minimum distance to existing businesses, but it is not clear whether this rule is enforced consistently. The density of these retail businesses is highest in urban areas (Greater Accra and Ashanti Region account for more than 80% of all drug retail outlets in Ghana).

101. *Access to essential drugs has improved in the country overall.* The public sector health facilities had a stock of about 80% of the essential drugs, while missions had 98% and private sector had 73% in 2007. Availability rates of certain tracer drugs had improved for public facilities to 80% in urban areas and 40% in rural areas in 2008¹⁶, compared to 40% and 15% respectively in 2004.

Figure 23: Availability of Essential Drugs, 2007



Source: WHO, 2008

102. *Access to drugs and consumables for obstetric and neonatal care has improved in public and private facilities.* Availability of drugs has improved at health facilities: most facilities reported having anti-malarials, antibiotics, oxytocins. Other drugs, like ARV, were not easily available, and reported to be in only 23% of the surveyed facilities nationally. Contraceptive access was also good, the lowest being reported at district hospitals (73% had any contraceptives); but implants and IUDs were uncommon (average 35-39%). However, several facilities continued to report stock outs of certain tracer drugs, such as oxytocin, magnesium sulphate, and others (EmONC, 2011). The primary reason for drug stock out was reported as limited supply at the Central Medical Stores (CMS), followed by transport difficulties, financial constraints and administrative difficulties.

¹⁶ Draft Report: Ghana Medicines Price and Availability Monitor; Ghana MOH/WHO/HAI collaboration; obtained from HAN Ghana

Table 8: Primary Reason for MCH related drug stock outs in Health Facilities, 2010

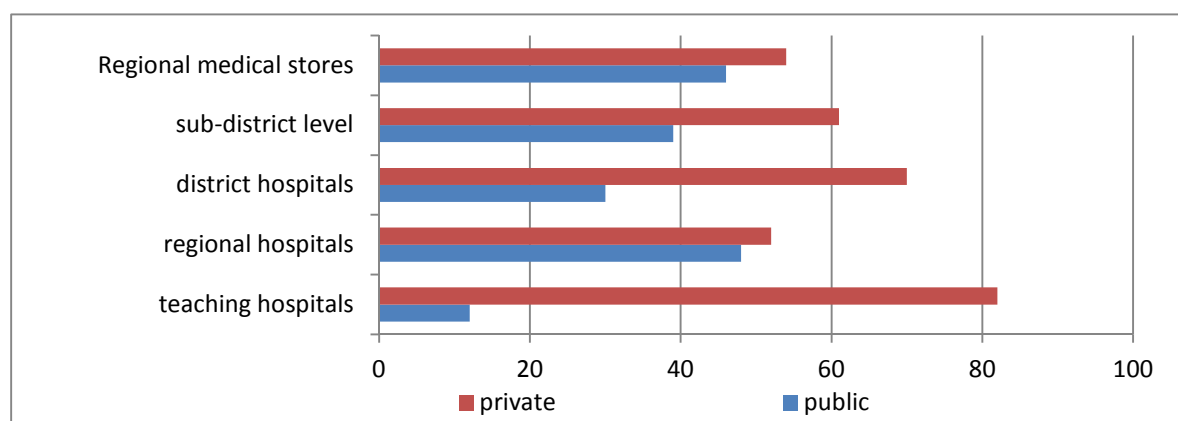
Facilities	Drugs stock-outs at CMS	Transport Difficulties	Administrative Difficulties	Financial Constraints
Public				
Regional Hospital	33%			
District Hospital			21%	
Health Center		18%		
CHPS	19%			
Non-Public				
District Hospitals				27%
Maternity Homes	33%			
Health Clinics		21%		

Source: National Assessment for Emergency Obstetric and Newborn Care. Ghana. November 2011.

2.3.2. Procurement

103. *Decentralization of procurement and introduction of the national insurance system have contributed to improved availability of medicines at the facility level.* Over the course of the last decade, the procurement of medicines has increasingly decentralized with Budget Management Centers (BMC) procuring directly from the domestic private sector. While the MOH has tried to curb this practice through administrative guideline of ensuring that BMCs obtain a “non-availability certificate” from the CMS prior to purchasing, this guidance is hardly observed in practice. In 2003, a survey conducted by DELIVER Project, showed that over 50% of the medicines were sourced from the private sector. The main reasons cited were lower prices, better quality, availability and packaging¹⁷.

Figure 24: Sources of procuring drugs: public and private sector, 2002

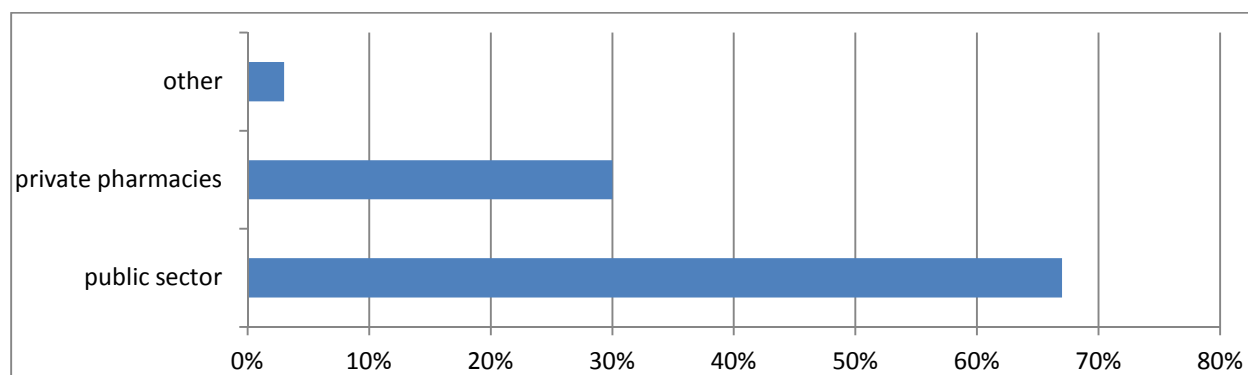


Source: JSI and Deliver, 2003. Pharmaceutical pricing study

104. *The public sector is still the main source of drug supply for obstetric and neonatal care.* Most health facilities (from hospitals to CHPS) have pharmacies or at least provide drugs. The primary source of obstetric and neonatal care related drugs is from the public sector (67%), followed by the private pharmacies (30%). While the teaching hospitals relied primarily on public sector for obstetric related drugs and medical supplies, and Maternity homes primarily on private pharmacies, district hospitals and health clinics relied equally on public and private sources (EmONC Study, 2011).

¹⁷ Sarley, David, Hany Abdallah, Raja Rao, Joycelyn Azeez, Peter Gyimah, and Bertha Garshong. July 2003. Ghana: Pharmaceutical Pricing Study, Policy Analysis and recommendations. Arlington, Va.: John Snow Inc, /DELIVER, for the U.S. Agency for International Development.

Figure 25: Source of procurement for obstetric and neonatal care related drugs, 2010



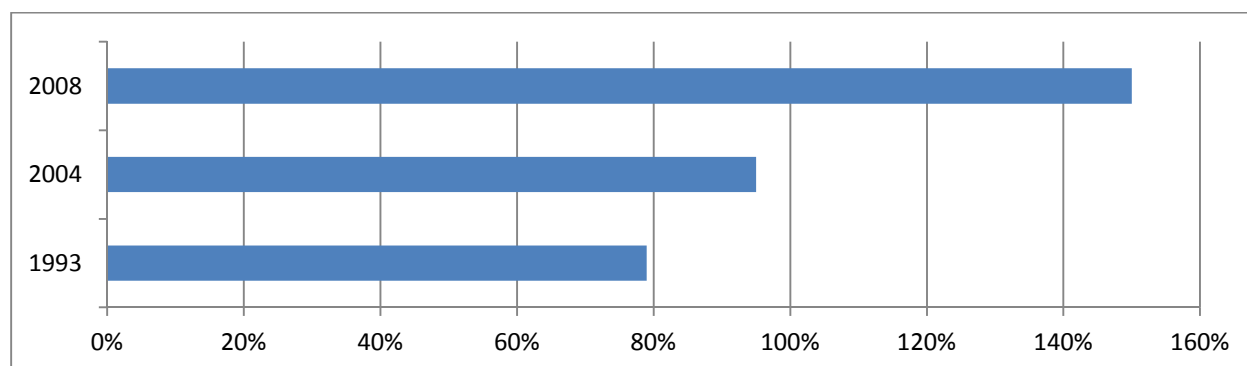
Source: National Assessment for Emergency Obstetric and Newborn Care. Ghana. November 2011

105. ***The central medical store is still an important procurer and distributor of select public health commodities.*** Despite the fact that almost 50% - 70% of the current public sector procurement is conducted through the private sector, the CMS play a critical role in the procurement, warehousing and distribution of select public health commodities (contraceptives, vaccines, etc.). Most of the donors rely on the CMS to serve as the first in-bound warehouse for storing and further breaking the bulk order into smaller orders for further downstream distribution to facilities. In addition, the CMS continue to provide at least 30% of the needs of the country. However, to date, the supply chain functions operated by CMS have been fragmented, lacking a strategic approach. While the policy states direct delivery by CMS to the regional stores, a study conducted on costs of logistics found that mostly the regional stores used their own transport to get the supplies.

2.3.3 Pricing

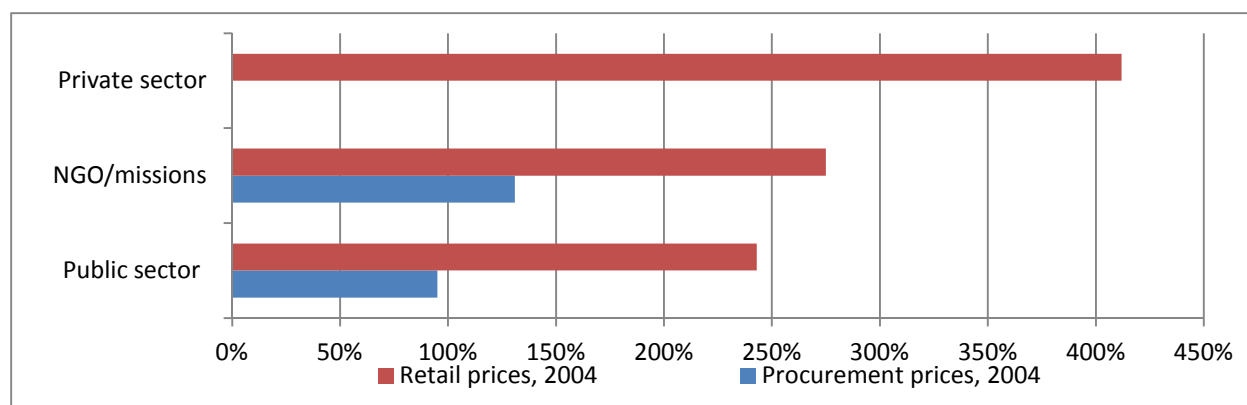
106. ***Average drug price in Ghana is several folds above international reference pricing.*** Ghana is procuring drugs 150% of the international drug reference pricing in 2007, as compared to about 79% of the international reference pricing in 1993 (JSI, 2003). While HWs cited low price for one of the reasons for procuring through the private sector, data from several studies show that the CMS (the Ministry of Health's procurement agency), was procuring well below international prices, mainly due to economizing through bulk orders. The high price is expected to be a result of: (i) decentralized procurement of drugs to district and sub-district levels thereby not benefitting from economies of scale, (ii) NHIS drug pricing policy which dictates it to be at a "median" range of the current Ghana market, rather than to the MOH mark-up policies or to the international reference pricing, and (iii) difficulty of price regulation enforcement.

Figure 26: Average public sector procured prices as compared to international reference pricing (1993-2008)



Source: WHO, 2009

Figure 27: Public and private sector procured versus retail prices compared to international reference pricing, 2004



Source: WHO, 2004

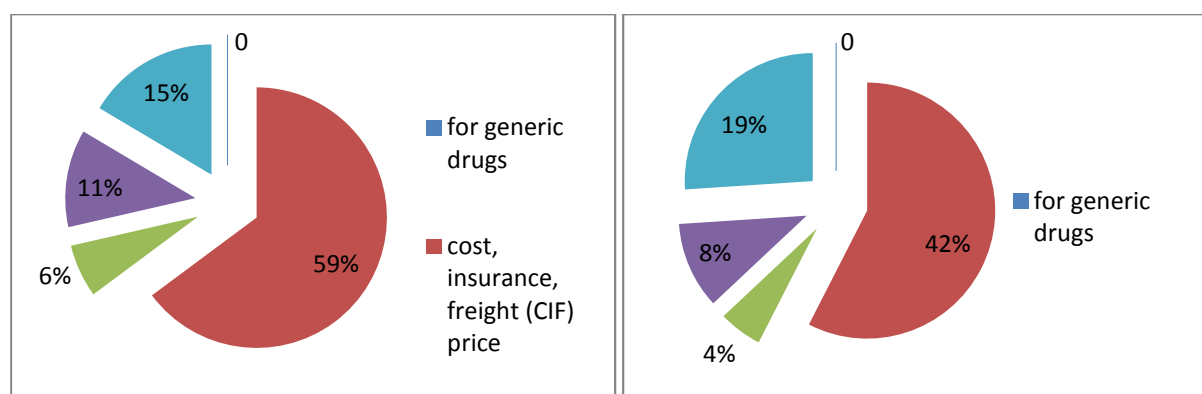
107. ***The variation of prices across facilities has also been found to be significant.*** A survey of drug prices between different sectors (public, private and mission) showed large differences for malaria drugs (which are provided for free to the public sector by donors) but small differences for anti-hypertensives. In urban areas the private sector were likely to have lower prices than the public sector, while in rural areas the public sector were likely to have the lowest and the mission sector the highest prices. While some of the price differentials could be driven by cost of delivery, much of the variation is a consequence of decentralized pricing and procurement decision-making, and potentially impacting the poor negatively.

108. ***A high mark-up has increased generic drug prices even further.*** The public and private sector facilities retail drugs at on average about 350% of the international reference pricing. Although there is a drug price mark-up policy in the public sector, the price increases are significantly above that. The facilities are either not aware of the policy or do not apply them. They use their discretion in setting prices. It is very possible that these price hikes are a result of NHIA drug pricing policy using “median” local market prices. Although, NHIS registered patients are not expected to pay for the prescribed drugs, all others pay for drugs.

Box 3: Ghana MOH drug price mark-up policy is summarized below

Central Medical Stores:	20% For ICB plus 25% duty and VAT adding 45% to ICB prices
	15% Sourced through local procurements
Regional Medical Stores	10%
Service Delivery Points	10%
Source: MOH	

Figure 28: Cost break-down of drugs procured by public versus private sector, 2004



Source: WHO, 2004

109. ***Profit margins are kept relatively high.*** Typical profit margins for manufacturers are in the range of 10-40%; wholesalers add another 10-20% and average retail margins are 20-50%, according to a paper from 2005¹⁸. But there is also anecdotal evidence that in some cases margins in particular at retail level can be much higher, up to several hundred percent. Margins in the public sector tended to be lower than in the private sector, but the picture is inconsistent and it appears that public sector providers are increasingly managing their pharmacies for profit and benchmark their retail prices against the NHIA Medicines List's reimbursement levels or the local private competition, rather than applying a consistent margin on top of the acquisition costs they have to pay.

110. ***The central medical stores¹⁹ played a critical role in keeping the prices down.*** Surveys from as far as 1993, have consistently shown that MOH bulk procurement of drugs resulted in cheaper prices. This was a result of two main strategies: bulk procurement and use of international tendering. However, a combination of reforms that decentralized the drug budget to BMCs, significant funds owed to CMS by BMC for past services rendered and aggregated poor performance by the CMS in ensuring appropriate and consistent level of drug stocks; many facilities started purchasing directly from the retail market further de-capitalizing the central medical stores and making it unable to conduct its mandate of procurement and distribution.

¹⁸ JC Cohen, M Gyansa-Lutterodt, K Torpey, LC Esmail, G Kurokawa: TRIPS, the DOHA Declaration and increasing access to medicines: policy options for Ghana; Globalization and Health 2005, 1:17 doi: 10.1186/1744-8603-1-17

¹⁹ The central medical stores are part of the SSDM that includes the departments of procurement and central medical stores.

2.3.4. Quality

111. ***There is risk of non-compliance to rational drug prescribing.*** Health facilities surveyed by MOH showed significant deviations from the Essential Medicines List (EML) in their procurement. Given that NHIS reimburses providers on their drug costs, and that regulatory enforcement is weak, adverse behaviors emerge, as providers are willing to prescribe drugs that may not be necessary, or prescribe the more expensive drugs. Providers are also willing to provide drugs not in the EML or the NHIS drug lists, as seen from the *Korle-bu* teaching hospital case. This suggests that drug costs in the country could grow faster than necessary, and this is already seen in the NHIS spending patterns.

112. ***A significant proportion of prescription drugs are bought over the counter.*** The country faces challenges of weak regulatory capacity. In addition to the over-the-counter (OTC) medicines (30%), sale of prescription medicines or sale of medicines by non-pharmacists (e.g. chemical sellers, who are not licensed to do so) has been estimated by the Ghana Food and Drugs Board (FDB) to be a major challenge, increasing irrational and over-use. But, more threatening is the risk of counterfeit or sub-standard drugs entering the pipeline. The FDB estimates almost 10 – 20% of the medicines sold through the private sector may be sub-standard.²⁰

113. ***Non-compliance to rational prescribing is rampant, increasing costs both to the consumers and the government.*** In addition to poor prescribing compliance among retail pharmacies, a survey conducted by MOH found lack of adherence to standard treatment guidelines, procurement of medicines on the essential medicines list (EML) and an increase on the number of drugs prescribed per episode.²¹ However, the recent pricing lists from NHIS to providers, sets ceilings at which drug costs are reimbursed, and this indirectly helps control drug prices in the market.

2.3.5. Policy and Regulations

114. ***Ghana has made efforts to improve access to drugs.*** The MOH five-year program (2007-2011) emphasized the need to improve access to medicines, improve supply management systems, increase quality assurance and promote rational use of drugs. The MOH has an essential medicines list and NHIS drug list.

115. ***Regulatory bodies are in place, but regulations are not easily enforced.*** The Food and Drugs Law was developed in 1992 and amended into Act 523 in 1996. Specific tasks of the Food and Drugs Board (FDB) are control of manufacturer, import, export, distribution, use and advertisement. FDB has six regional offices, and at the ports and airports. FDB manages a pharmacovigilance program, and runs the official drug quality control laboratory, which participates in the proficiency testing for drug quality control laboratories organized by the WHO. The MOH has also used select policies and tools such as use of EML, STG for improving quality assurance in the drugs management cycle. However, application of these tools has fallen short. There is no effective enforcement of existing regulation on public sector price margins and little reliable information about margins and mark-ups at different levels in the private supply chain.

²⁰ Lukulay P. and Smine, A. 2008. *Rapid Assessment of Drug Quality Assurance and Drug Quality Control Capabilities of Ghana: USP DQI Planning Workshop*. Submitted to the U.S. Agency for International Development by the United States Pharmacopeia Drug Quality and Information Program. Rockville, Maryland: United States Pharmacopeia

²¹ Ghana: Assessment of Medicines Procurement and Supply Management in the Public Health Sector – A Country Report; MOH, GHS, 2007

116. ***The Essential Medicines List (EML) is in place, but variations exist in the market.*** MOH has an EML, which includes about 29 categories including medicine, vaccines and injectables (2004). Most products offered under EML are generic/branded generics, except when stated otherwise. Teaching and private hospitals may have their own medicines list, which includes within it EML and other branded drugs. NHIS also has its own medicines list, which incorporates EML and includes some others. NHIS does not reimburse drug costs outside their drug lists. There is confusion on some drugs, such as malaria treatment, which are provided free of cost through external financing support, and are reimbursed by NHIS as well. However, issues of this nature are being addressed during review processes, such as those conducted by the NHIS medical audits department.

117. ***Central Medical Stores (CMS) and supply chain challenges have made the system ineffective.*** The CMS is operational, and is responsible for procuring drugs and vaccines that are primarily financed by external financiers and those that are seen to be public goods and financed under the central government budgets. Economies of scale can generally be applied, as it addresses country wide needs, and generally uses international competitive bidding processes, or national competitive bidding, where applied. Also, governance issues can be easily administered. However, the CMS supply chain is not running efficiently. CMS is operating at 50% capacity, one reason being its high indebtedness. Distribution to regional medical stores has been severely challenged. Therefore, many health facilities had stock outs, and could not function effectively.

118. ***Alternative approaches of decentralization and procurement of drugs from the non-public sector have improved drug availability.*** Ghana's public procurement of pharmaceuticals is done at tier levels as defined by public procurement law Act 663. The law allows for decentralization. With the introduction of NHIS, and the split between provider and payer, NHIS reimbursements cover the cost of treatment drugs and these reimbursements go directly to the provider or to the district authorities. This gave health facilities the autonomy to use IGF for procurement of drugs and consumables following EML (or NHIS drug list).

119. ***Decentralized procurement has had some positive and some negative impacts.*** On the positive side, access to medicines has improved rapidly. On the negative side, drug prices have grown significantly, and the types and quality of drugs in the market are not assured. The Food and Drugs Administration (FDA) is unable to control the quality of drugs in the market, given that procurement takes places at decentralized levels and by several small agents in the private sector.

120. ***Efficiency gains can be achieved.*** The MOH can move this agenda through: incentivizing pooled procurement at national, regional and across regional levels, better negotiating of pharmaceutical prices, regularly screening market prices and updating NHIS reimbursable drug prices. NHIS can be a strong conduit in bringing down drug prices. NHIS has come up with drug pricing which uses a median market rate approach. It can use the drug pricing mark up policy of MOH to standardize prices. A faster reimbursement from NHIS can also lead to efficiency gains.

121. ***A significant proportion of drugs are imported, however, measures are enforced to protect local manufacturing industries.*** Ghana has protective measures on local production of drugs. These include drugs on the EML and those of a traditional nature. Furthermore, the protective measures have not always allowed for competition. Attempts of a larger West African drug distribution company with more advanced management systems (Gokal Laborex Ltd, affiliated with Eurapharma, which belongs to a large French industrial conglomerate) to set up shop in Ghana have met resistance from local players, who appear to be aware that their fragmented business model is not very competitive in a global market. Seventy percent of drugs are however imported including generic/generic branded and branded drugs. There is duty charged for treatment drugs that are imported, while those brought in through external financing and of a public goods nature have little or no duty imposed.

CHAPTER III: HEALTH FINANCING SYSTEM

122. This chapter provides a situation analysis of the health financing system in the country, with details on the health financing functions, programs, the National Health Insurance Scheme, and health spending trends. It also provides an assessment of revenue collection, risk pooling, and decentralized spending patterns. A brief fiscal space situation analysis is offered at the end of the chapter.

Key Messages

Health Financing Functions

- The public sector has diversified its sources of financing. The sector receives funds from general taxes, earmarked taxes, out-of-pocket payments, and donor funding. The earmarked taxes under the National Health Insurance Fund (NHIF) have resulted in not only a greater consistency in financing for non-salary recurrent spending, but also an increased public spending in health.
- In addition to earmarking value added tax (VAT) and Social Security and National Insurance Trust (SSNIT) to the NHIS, 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.
- Public per capita expenditures on health are relatively modest but the public sector is increasing its share, while the health cost burden on households is declining.
- However, the Abuja target of 15% of government budgets going to health expenditure has not been met.
- Given the macroeconomic situation, Ghana is not expected to have much additional fiscal space despite expectations from oil production.
- If public health spending continues to increase faster than GDP spending, then fiscal space constraints will become a serious issue as the NHIS is expected to become insolvent in 2013.

Health Insurance Providers

- To ensure affordability to care, NHIS has heavily subsidized financial access for vulnerable population groups.
- Enrollment for informal sector workers is voluntary, and the NHIS is subject to adverse selection from a significant portion of this potential premium paying enrollee group.
- Several vulnerable groups, including some of the poor, are not specifically targeted under the exempt group and are, therefore, unable to register. This not only fractures the NHIS risk pool but results in high costs, limited contributions from the low-risk populations, and ultimately, threatens the financial sustainability of the system.
- Given the particular nature of the payment mechanism, it is likely that efficiency gains can be realized by reducing supply-induced demand and adverse selection.

- The NHIS basic benefits package is comprehensive but does not require copayments, deductibles, or have reimbursement ceilings by type of service. This means that NHIS beneficiaries have few restrictions on types of services or the quantity of services they can demand. Most services used were for outpatient care, and it is possible that NHIS beneficiaries accessed primary care services more often than they would have otherwise as a result of moral hazard. More drugs and more expensive drugs (as compared to diagnosis) seem to have been prescribed, and suggests unnecessary use.
- The NHIS will become insolvent by 2013, unless urgent steps are taken to mitigate risks. Health spending is increasing exponentially, while revenue generation in comparison is increasing in smaller increments.

Health Spending Trends

- Ghana's total spending is close to the average for comparable income level LMICs, but the effectiveness of this spending has to be carefully assessed, given the relatively low health outcomes.
- The public sector accounts for about half of the total health expenditures. While government health spending will continue to grow in absolute terms because GDP is expected to grow; however, in real terms, health spending is expected to decline.
- Most government resources go towards paying for remuneration and benefits for its staff (55%).
- There is high reliance on external financing to support some public health goods interventions, and as external financing gets re-allocated, it could threaten the sustainability of these programs.
- There is continuous reliance on external financing to support capital investment. Despite rising capital investment, there is little upward movement in recurrent budget contributions from the government.
- Most government recurrent resources go towards tertiary and teaching hospitals.
- Reasonable variation in the distribution of decentralized health spending per capita was evident among regions, but wide variation was evident across districts. There is no reasonable explanation apparent for this variation.
- Income generating funds, which are off-budget income, are growing over time and facilities increasingly rely on them for their sustainability.

3.1. Health Financing Functions

123. *Ghana's health financing system is complex* with multiple funding sources, multiple levels of government and non-government stakeholders, and both public and private providers. Supply side subsidies to public facilities complicate provider payment processes, which are largely not results-based, and preclude effectively establishing a level of competitive playing field. Important data for decision making are lacking, partially as a result of insufficient health management information systems (HMIS). National Health Accounts (NHA) is not institutionalized, which further complicates information flow and evidence-based policy making and planning.

124. *Government is stepping up efforts to increase public spending in health.* The public sector contributions have increased from 44% (1995) to 53% (2008) of total health spending. The big leap was made with the introduction of NHIS in 2003. NHIS contributes towards 16% of total health spending (2009).

125. *The public sector has diversified its sources of financing, but more could be done to improve the efficiency in use of these funds.* The sector receives funds from general taxes, earmarked taxes, OOP, and donor funding. NHIS is funded largely through earmarked taxes (value added taxes [VAT] and levies), through the Social Security and National Insurance Trust (SSNIT) contributions and through premiums/OOP. This has not only provided more consistency in financing the non-salary recurrent spending, but has also increased public spending in health. District governments do have their own District Assembly Common Funds (DACF) but resources allocated for health from DACF are low and variable across districts.

Table 9: Sources of Financing for Health (1995-2009)

Year	THE %GDP	General government expenditure on health as % of THE	Social Security Funds as % of THE	Private expenditure on health as % of THE	Out of pocket expenditure as % of THE	Per Capita Health Spending Exchange Rates (\$US)	Per Capita Health Spending PPPs (\$US)
1995	5.30%	44%	0%	56%	44%	27	63
2000	4.89%	41%	0%	59%	47%	20	71
2005	5.39%	53%	12%	47%	37%	45	109
2006	5.53%	55%	6%	45%	35%	53	120
2007	6.03%	62%	21%	38%	30%	68	140
2008	5.49%	59%	15%	41%	33%	70	137
2009	4.86%	53%	16%	47%	37%	54	125

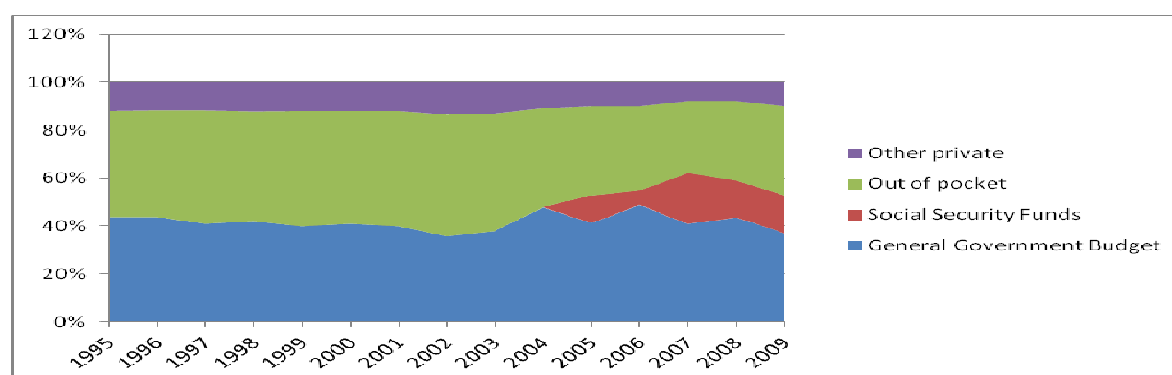
Source: WHO, NHA, 2011;

Note: this uses rebased GDP

Note: Table 8 and 9 cannot be compared as Table 9 only includes MOH, GHS and NHIS, while Table 8 is more comprehensive, as it includes MOH, GHS, NHIS, teaching hospitals, army and police hospitals, etc.

Note: By establishing purchasing power (PPP) equivalence, where one dollar purchases the same quantity of goods and services in all countries, PPP conversions allow cross-country comparisons of economic aggregates on the basis of physical levels of output, free of price and exchange rate distortions.

Figure 29: Sources of Financing for Health (1995-2009)

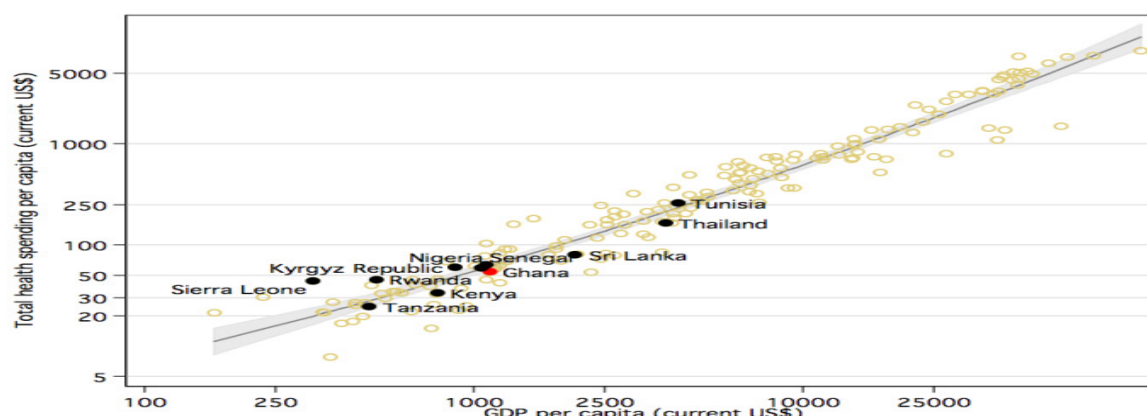


Source: Data is from NHA, 2011

126. *Total per capita expenditures on health are not excessive and the public sector is increasing its share, while the health cost burden on households is declining, although still high by WHO standards.*

Overall, Ghana has improved its health outcomes, but has not achieved the health outcomes on average found in comparable income and health spending – lower middle income countries (LMICs) globally. The effectiveness in the use of its funds needs to be further evaluated. Where is Ghana spending its resources, and who are benefiting from it?

Figure 30: Total Per capita health spending compared to countries with similar incomes, 2009



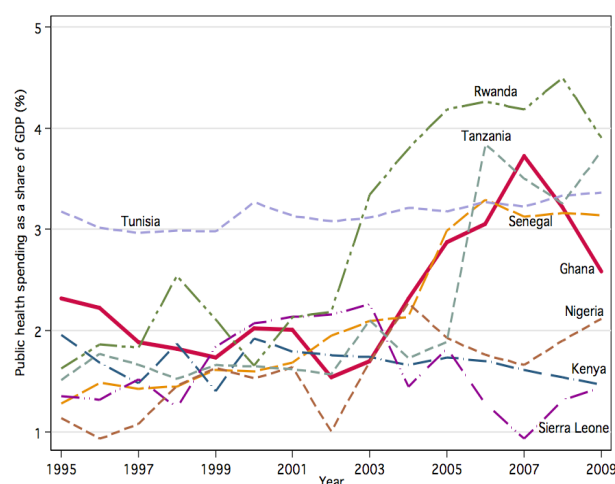
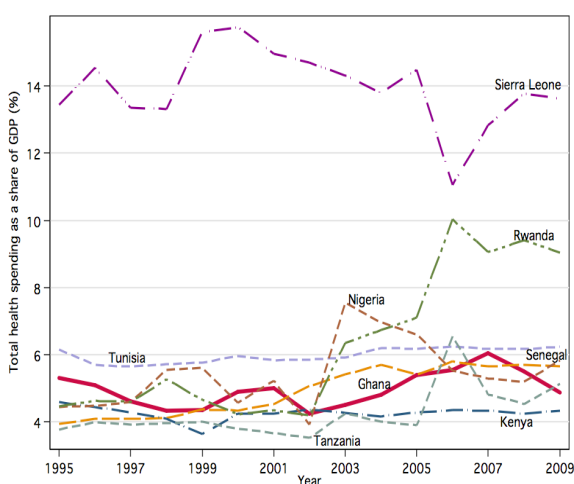
Sources: World Development Indicators & WHO, 2011

Note: Both axes log scale

Figure 31: Ghana, Health Spending as a percentage of GDP (1995-2009)

(a) Total Health Spending

(b) Public Health Spending



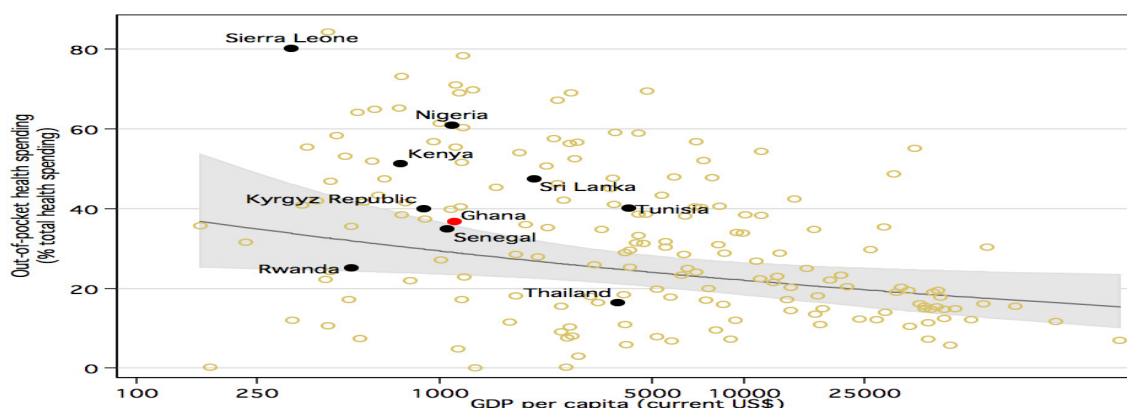
Source: World Health Organization. National Health Accounts, 2011. For Ghana, it is reformulated with rebased GDP (from International Monetary Fund; Ministry of Finance and Economic Planning, Ghana)

The private sector

127. *Ghana private sector health spending is at or above the levels found in comparable income global comparators.* Private sector health spending was 47% (2009) of total health spending, of which some 80% was out-of-pocket spending by households. With the introduction of NHIS in 2005,

observations show a reduction in out-of-pocket (OOP) spending: 44% (1995) to 37% (2009) of total health spending. Although the situation is improving overall, Ghana could do better, as household health spending burden remains high and well above the 20% recommended WHO threshold. But more recent data is required to assess the changes in household situation post 2005.

Figure 32: Out of spending for health relative to other countries with similar income, 2009



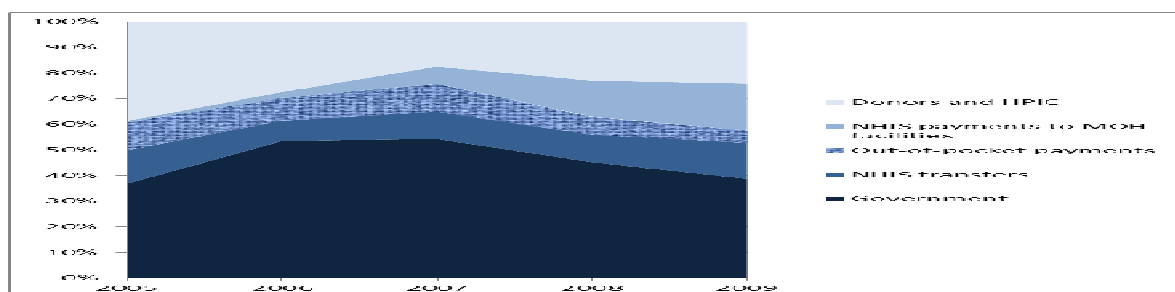
Sources: World Development Indicators & WHO, 2011

Note: Both axes log scale

External Contributions

128. *Donor assistance contributes to a significant share of resources for health in Ghana*, contributing more than 25% of total government health spending in 2009.²² 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%. The more flexible sector budget support, which can be applied to government health priorities, makes up only about 30% of donor funding.

Figure 33: Sources of Financing for Health for MOH (2005-2009)

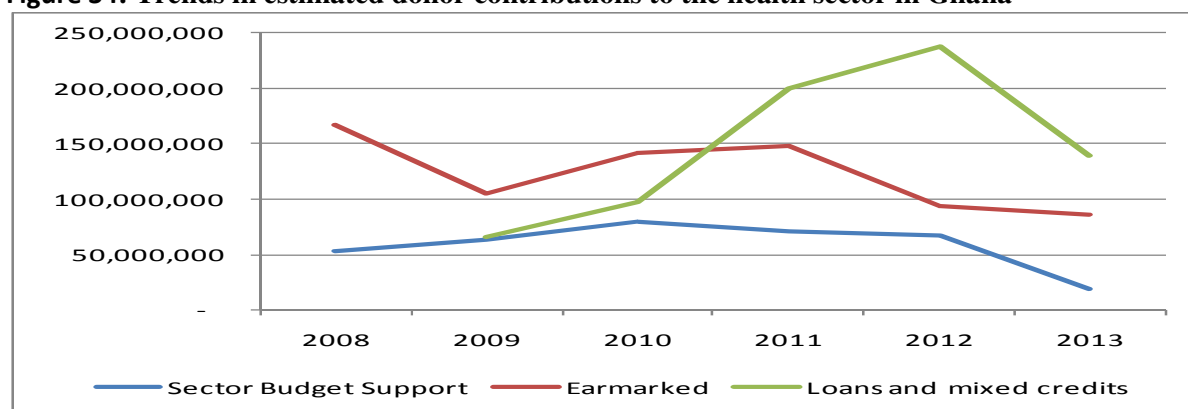


Source: MOH, HSMTDP (2010)

129. *Donor support for the health sector in Ghana is believed to have already started to decline in 2011*. 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 the country 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 United Nations Development Program (UNDP) report that Ghana would benefit from improving its credit rating and devising a clear exit strategy from aid.²³

Figure 34: Trends in estimated donor contributions to the health sector in Ghana



Source: MOH.

Internally Generated Funds

130. *IGF, off-budget income, is growing over time and facilities rely on it for their sustainability.* IGF include: income from NHIS, other insurance, and OOP. IGF has grown over time and contributed 25% of public sector funds in health in 2010. IGF is becoming a critical source of income for health facilities (35% for sub-district and district health facilities, and 25% for regional hospitals). Although there is a formula setting priorities in the use of IGF, it is not necessarily followed, nor monitored. The sale of drugs can bring in as much as 50% of the IGF in sub-district health facilities, while the proportions would be lower for hospitals (30-45%). Most IGF is used to cover medical and non-medical consumables (50% of total IGF), followed by other recurrent non-salary costs (less than 20% of total IGF, 2010). This autonomy in the use of funds has provided public health facilities greater ability to procure drugs, to conduct minor repairs of health facilities, and to recruit contractual workers. However, it is not to be used for larger capital investments, personnel remuneration or travel. *There is need for more in-depth analysis of IGF earnings and use by regions and by various health facilities.*

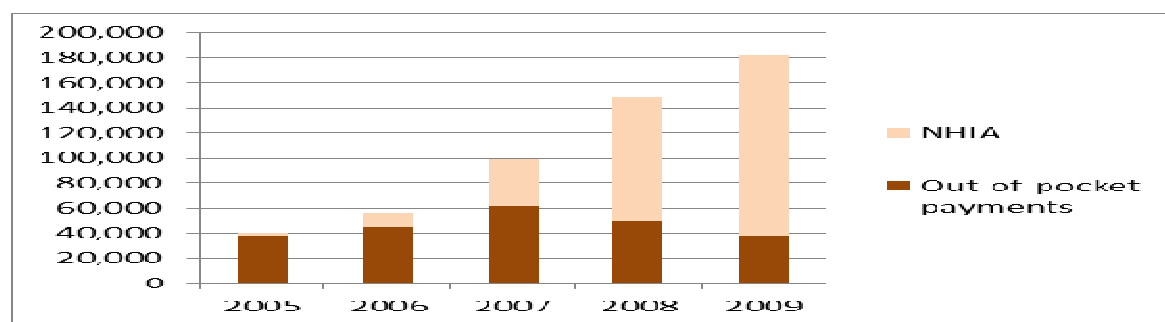
Table 10: Ministry of Health, IGF Breakdown 2005 – 2008 (x 1,000 GHc)

	2005	2006	2007	2008
Cash	38,097	44,826	61,501	49,751
NHIA	1,852	11,385	37,484	98,701
Total	39,949	56,211	98,985	148,452
% cash	95.4	79.8	62.1	33.5
% NHIA	4.6	20.2	37.9	66.5

Source: MOH financial reports. Note: data is not validated.

²³ United Nations Development Program, 2011

Figure 35: Ministry of Health, IGF Break down between NHIA and out-of-pocket, 2005-2009.



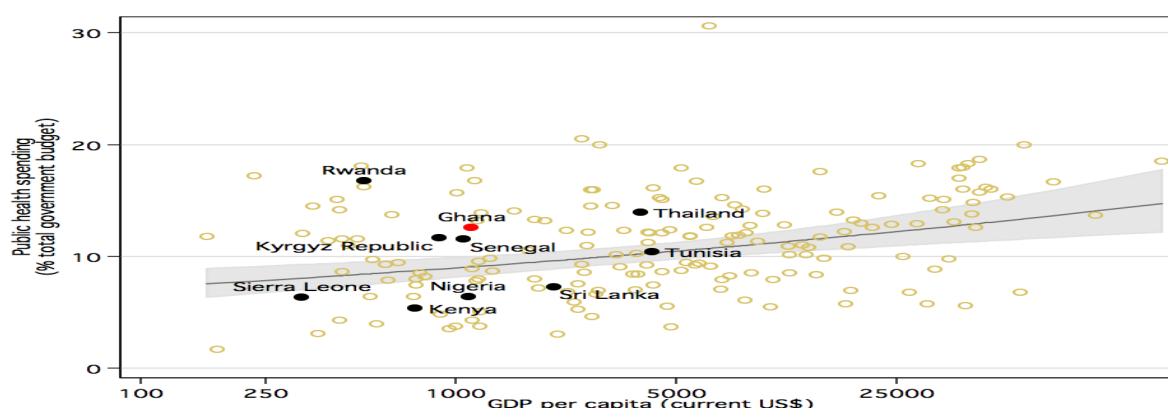
Source: MOH, HSMTDP (2010)

3.2. Trend Analysis on Health Budgets and Expenditures²⁴

3.2.1. Central Expenditure Patterns

131. *Ghana, like several other countries, does not meet the Abuja target* (of 15% allocation of government budget for health). Health budgets ranged between 14% and 16% (2006-2009) of total government budgets, although, allocations and expenditures remained around 9% of total government expenditures. However, the Abuja target has not been reached in recent years, as health budgets declined to 11% (2010) and 9% (2011) of total government budgets. Other countries from the region, such as Rwanda, Tanzania and Senegal have been stepping up efforts in the past few years. Budget information however does not provide the complete picture. From Ghana's public expenditure review, it was evident that even though higher budgets were allocated, health spending has remained at about 9% of total government expenditures. This stresses the importance of tracking expenditure data more seriously, and the need to analyze bottlenecks and discuss possible ways to release these bottlenecks. However, when compared to other countries with similar income, Ghana is above average in spending of total government budgets for health.

Figure 36: Public health spending as a percentage of total government spending, 2009



Sources: World Development Indicators & WHO, 2011

Note: Both axes log scale

²⁴ The analysis below is only for that of MOH including NHIS and GHS, and not that of the other parastatals, such as police, army, and the others.

132. **Ministry of Health spending.** MOH spending on health increased from GHC 352 million (2005) to GHC 880 million (2009), or from per capita GHC17 (2005) to GHC38 (2009)²⁵ in nominal terms, but did not show a significant increase in real terms.

Table 11: Public Sector (Ministry of Health) Health Spending in GHC million and percentages (2005-2009)

Budget Items	2005		2006		2007		2008		2009	
	GHC	%	GHC	%	GHC	%	GHC	%	GHC	%
Item 1 - Personnel Emoluments	142	40	235	43	265	45	325	42	405	46
Item 2 - Administrative Expenses	41	12	36	7	52	9	66	9	87	10
Item 3 - Operation Expenses	95	27	130	24	156	27	234	30	246	28
Item 4 - Investment Expenses	73	21	148	27	115	20	147	19	141	16
Total, GHC (million)	352	100	550	100	588	100	773	100	880	100
Total, USD (million)	386		595		605		637		616	
Per capita, GHC	17		26		27		34		38	
Per capita, USD	18		28		28		28		26	
Per capita, USD (real, 2002)	10		14		13		11		9	

Source: Ministry of Health financial statements, National Health Insurance Scheme financial statements

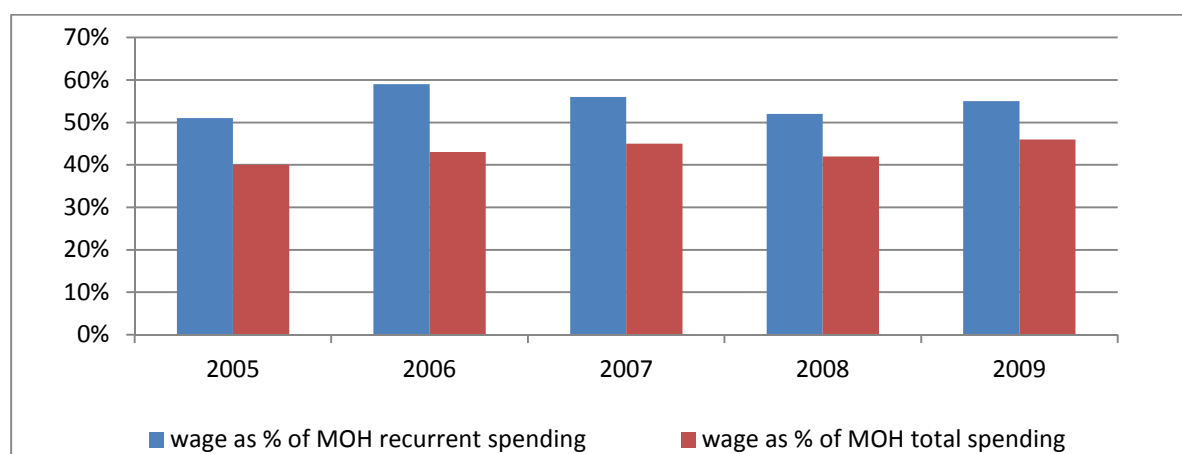
Note: The analysis is only for that of MOH including NHIS and GHS, and not that of the other parastatals, such as police, army, and the others.

133. **Health sector wage bill makes up at least 55% of MOH recurrent health spending, or 40% of total health spending.** MOH wage bill (budget Item 1) as a proportion of total MOH recurrent spending increased from 51% (2005) to 55% (2009), and continues to be the highest itemized spending. The wage bill also includes allowances paid for service provision. The government in recent times has merged allowances (e.g. additional duty hour allowance [ADHA]) into the salary component of the budget (Item1). In the past, however, ADHA was covered separately under Item 2 of the budget, and in 2005, ADHA was at least 2.5 times higher than the remunerations (budget Item 1) itself. External financing generally do not cover salaries and allowances.

134. Although, budget releases can be delayed, however, the wage payments (Item 1) are unlikely to be delayed and all government employees are ensured their salaries. The Controller Accountant General's Department (CAGD) is responsible for the disbursement of Item 1. If budgets are below requirements, it is often assumed that re-shuffling will happen in favor of payroll needs. It is often the non-salary budgets that are not ensured, as budget releases are delayed, and other off-budget resources are expected: part of the resources are from NHIS as claims reimbursements for services partly come from user fees (both of these are categorized under internally generated funds or IGF), and partly from external financing. The reliance on off-budget has grown for non-salary recurrent spending over time.

²⁵ Public sector spending captures government spending through the MOH and NHIS. It excludes grants from development partners.

Figure 37: MOH spending on wages as % of recurrent and total



Source: MOH Financial Statements, NHIS Financial Statements

135. ***A higher proportion of health sector staffing is in regions and districts.*** Of the MOH wage bill, at least 74% of wages are distributed through the GHS, and most of it through district health services contributing towards staffing at district health departments, district hospitals, sub-district health centers and the CHPS. Resources allocated by MOH towards district staffing have increased over time from 47% (2005) to 57% (2009). MOH wage bills for tertiary teaching hospital staff simultaneously decreased from 17% (2005) to 14% (2009). Caution is required while analyzing this data, as some transfers are incorrectly reflected in the government recording system.

136. ***The wage bill may not be comprehensive, as it misses the coverage of contractual staff.*** The health wage bill should include all those who are working in the public sector as full-time or part-time employees. Full-time employees are covered under the regular budgets (item 1) and are paid through MOH and NHIS budget. Given the shortage of service delivery staffing, MOH has given autonomy to lower administrative levels to recruit part-time contractual staff. They, however, are not covered under the regular budgets, but are paid by local levels through IGF under budget item 3. Therefore, many personnel are not comprehensively captured. The district spending analysis suggested that perhaps 2.5% of the total financing of local health personnel are financed through IGF. However, this study was unable to determine the wage implications of the contractual staff as a whole, and therefore the wage bill may be under-estimated, and the proportion of its under-estimation is unknown.

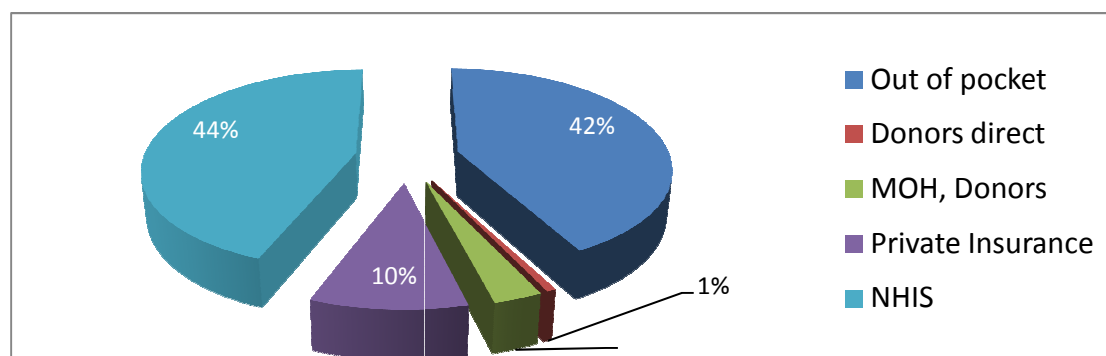
137. ***Drugs are a significant recurrent spending, and affect households disproportionately.*** Although, on a per capita basis, Ghana spending on drugs is not high given international comparisons, the rising expenditure trends suggest that attention is required to the situation. In 2005, Ghana spent about US\$13 per capita or a total market share estimated at US\$250 million (at retail market prices)²⁶. This amounted to about 37% of total health spending in the country. Newer data are not available to know recent market shares. However, some estimates suggest that the market has grown to about US\$330 million (2008). MOH spent about Ghana Cedi (GHC) 38 million (including global fund contributions²⁷), and NHIS spent about GHC 53 million on drugs in 2008. The public sector contributes roughly 30% of the total drug spending in the country, while household out-of-pocket (OOP) is expected to be about 44% of total drug spending, which is a significant amount. Given that drugs and consumables are significant

²⁶ The PMAG is currently undertaking a survey among its members to get a better estimate of the size of the market. The sales date of manufacturers and distributors are not published, but a market insider estimates that the largest players reach sales volumes in the range of larger than US\$30 million.

²⁷ This includes funds from Global Fund and other donor agencies for priority disease programs (HIV-AIDS, TB, Malaria) but without the malaria drugs provided through PMI.

contributors of health spending, improving efficiency, effectiveness and sustainability of the medicine system is critical for Ghana.

Figure 38: Ghana, financing of pharmaceuticals, share in % of different funding sources, 2008



Source: Seiter, 2011; this does not include all stakeholders

3.2.2. Decentralized resource allocation patterns

138. *Ghana is placed among the top countries in terms of fiscal decentralization in health*, as expenditure on district-level facilities and services has been around 50% of MOH expenditure in the last three years. However, this includes expenditure spent on the local level, but not controlled by local authorities. The degree of real fiscal decentralization is limited by several factors. First, more than 50% of district-level expenditure (2/3 in 2008) is executed centrally on behalf of district-level offices and facilities (staff payment and investment expenditure). Second, both District Assemblies' (DA) spending and MOH non-personnel recurrent expenditure are limited by centrally defined guidelines for required allocations. These earmarked allocations – including donor sponsored programs and District Assembly Common Fund (DACF) resources – constitute the larger part of service expenditure. The 2007 Public Expenditure Tracking Survey indicated that 42% of DACF funds were retained at the central level for several earmarked programs or initiatives (some of them related to health)²⁸. Third, transfers to the local level have not been made in a regular and timely fashion, and cash releases have been short of planned. Overall, the real local authority over financial resources, both within the current MOH/GHS system and within DAs responsibilities, is much more limited than the high proportion of fund transfers suggest.

139. Consolidated public expenditure (including IGF and donors' funds) on health in Ghana in 2008 has emphasized capital investment, and personnel expenditures have represented only 28% of the total. But as a proportion of recurrent expenses, personnel represented over half of the total, which is consistent with international evidence. However, at the district level, personnel emoluments represent a proportion well above the national figure: personnel emoluments accounted for 41% of total expenditure, but a proportion of recurrent expenditure similar to the country average (MOH Audited Financial Statements 2008).

140. *There is a great deal of specialization in financing sources.* Personnel (Item 1) at the district level are almost exclusively funded by government budget (2.5% are funded by IGF). Administration (Item 2) is funded mostly by IGF, with a 12% contribution from government. Service (Item 3) is funded by a mix of IGF (42%), donor-sponsored MOH programs (33%) and NHIS reimbursements (24%). As for

²⁸ DACF earmarked funds include 1% for Malaria prevention and allocations to capacity building (2%) and other items which may impact indirectly on health); they amount to 41% of total DACF transfers, leaving 59% to cover all responsibilities mandated for district governments.

investment (Item 4), it is almost exclusively funded by Financial Credits. It is worth noting that Item 3, which represents the major part of non-personnel recurrent expenditure at district level, is fully funded by non-government sources.

141. ***There are distortions in spending.*** In order to identify possible distortions in resource allocation or data issues, the mean expenditure value for the different types of facility and units were computed, and compared across different sources. There are sizeable differences across types of facilities, with Teaching Hospitals receiving the largest mean budget allocation by far, and District Hospitals the smallest. Regional Health Administration Offices also receive a much greater allocation than District offices. But there are substantial differences across data sources. Even though it is well known that actual expenditures can be different – and usually lower – than budget allocations, and that the table compares two different years, some of the differences are too large to be explained by the expected variation year-to-year or between budget and execution. They are more likely related to differences in classification and data errors.

142. ***District Hospitals receive a proportionately larger allocation relative to their production, and thus have a substantially higher cost per bed or per patient day.*** A more detailed analysis of hospital costs and a revision of criteria for allocation of budget and other resources would clarify the cause(s) of this apparent distortion.

Table 12: Mean features of hospitals by category

Type of Hospital	N	Mean No of Beds	Mean No. Admissions	Mean Patient-Days	Mean Recurrent Expenditure	Mean Expend /Bed	Mean Expend /PDay
Teaching	3	935	41.700	250.723	26,432,260	28,270	105.42
Psychiatric	3	395	2.209	146.060	4,008,386	10,139	27.44
Regional	8	218	12.640	55.886	1,558,141	7,143	27.88
District	99	73	4.578	15.081	969,755	13,270	64.30
CHAG	59	102	5.474	23.113	687,790	6,720	29.76
Quasi-Public	24	70	2.078	7.448	NA	NA	NA
Muslim	4	66	3.920	32.479	NA	NA	NA

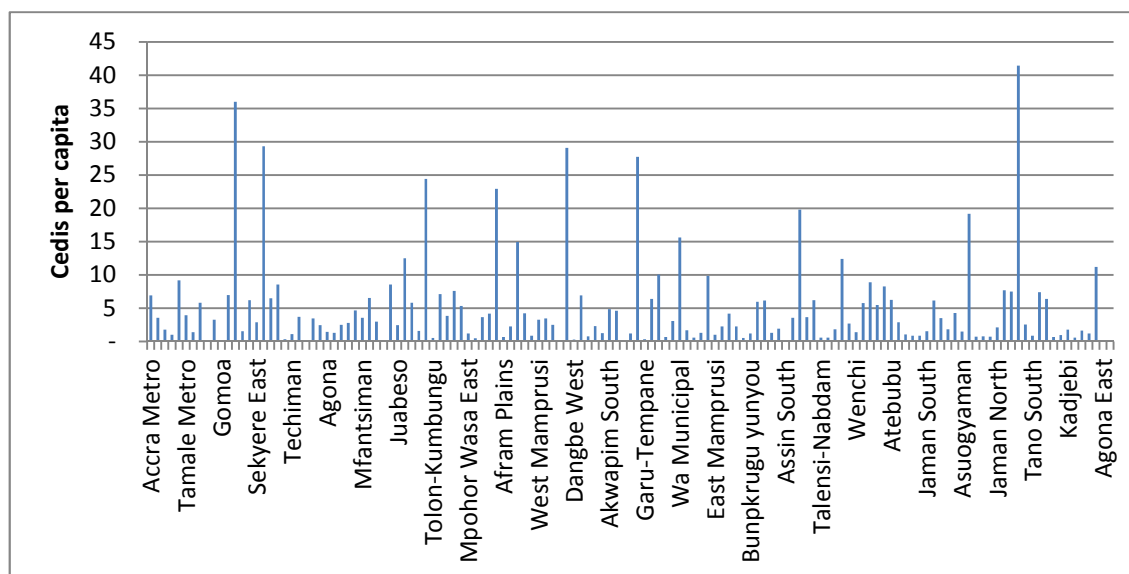
Source: GHS Bed state Report 2008, Budget 2009 (for teaching and psychiatric hospitals), PER 2009.

143. ***Reasonable variation was evident among regions, but wide variation was evident across districts, in the distribution of decentralized health spending per capita.*** National spending at sub-national levels was GHC 5.52 per capita in 2008, with relatively little variation across regions, within a range of 7.86 in Brong Ahafo to 3.23 in the Northern Region. The largest contribution to that level of spending was services provided by District Hospitals, followed by regional-level expenditure. District level primary care services (reflected in spending by DHAs and Sub-Districts) contributed the smallest part, except in the Eastern Region. Finally, spending by central level offices and facilities (headquarters and teaching and specialized hospitals), are concentrated in three regions – Greater Accra, Ashanti and Northern – where central offices and hospitals are located.

144. ***The distribution of total health expenditure is not clearly related to district population, and is little influenced by regional differences, since no regional pattern is apparent.*** Total health expenditure per capita – including all expenditure by MOH and GHS on decentralized administrative offices, health facilities and training institutions – varied enormously across districts. The mean value was GHC 5.52,

but 7 districts had a value of GHC 20 or more, with Kintampo South leading at GHC 41.40, while 31 districts showed a value lower than GHC 1²⁹.

Figure 39: Total Health Expenditure per capita by District, 2008



Source: PER 2009.

Note: Figures do not include expenditure on mission hospitals, but do include training institutions. Expenditure by other MDAs, especially District Assemblies direct spending, are not included.

145. *The variation in spending is not easily understood, as it is not correlated to population size, nor to poverty levels or welfare indicators.* District-level expenditure – expenditure allocated to DHAs and District Health Offices, including Sub-Districts – shows similarly large variation across districts. For regional capitals, regional spending accounts for the majority of total expenditure. In the smaller capitals, regional spending amounts to a high level per capita, making these Metropolitan, Municipality, and District Administrations among the highest spenders overall.

3.3. Fiscal space analysis

146. *Ghana may not have sufficient fiscal space to increase allocations for health* (in nominal and real terms). For the fiscal space analysis³⁰, the section assesses if additional financing can be expected through: (i) economic growth, (ii) additional revenue collection, (iii) additional external borrowing, and/or (iv) efficiency through re-prioritization of health expenditures.

²⁹ In these calculations, all decentralized MOH/GHS expenditure (to regional offices, facilities, training institutions - have been allocated to the district where the unit is located; for instance, the cost of regional hospitals was allocated to the regions' capitals. While this is not entirely correct, the distortion is unlikely to be important, since the proportion of a hospital's users coming from the district where the hospital is located is usually quite high. Also, It is important to note that the exact figures for individual districts may be distorted by the fact that some newly established districts may not yet have separate budget allocation , population or facilities. These values do not include public expenditure on mission hospitals, because only 5 of these hospitals reported expenditure data in the PER exercise, and including those would distort the figures for a small number of districts relative to the others.

³⁰ For Fiscal Space Analysis in Health, refer to "Health Financing at a crossroads in Ghana", World Bank publication, forthcoming, 2011

147. **Economic Growth:** Ghana expects positive growth rates in the coming years. Estimates suggest that on average Ghana will have a GDP growth rate of about 6% (2010-2015). Oil revenue predictions suggest that GDP will grow beyond the expected rate to 12% per annum in the next two-years but thereafter drop to 6% by 2013. The fiscal deficit, which was about 8.5% of GDP in 2008, has come down to about 7.7% of GDP in 2010. Inflation rates have come down from 20.7% (June 2009) to 8.6% (December 2010).

148. Ghana is not expected to have a lot of additional fiscal space despite expectations from oil production in the country. Oil revenue is expected to be only 3% of GDP. The Single Spine Reform is expected to take up about 2.5% of GDP in 2011. It is expected that oil revenue will mostly go towards paying for Single Spine expenses and for arrears.

149. Ghana's health spending elasticity is estimated at 1.13 (1995-2009). Therefore, health spending is expected to grow a little higher than income growth. Therefore, in nominal terms health spending is expected to grow. However, when considering in real terms, health spending is expected to decline by at least between 7% and 13% (2010-2015).

150. **Additional revenue collection:** Tax revenue is at about 15% of GDP in 2010. Oil tax revenue is expected to be only 4.3% of total tax revenue in 2011. The Government is looking at improving their tax collections. Estimates suggest that the government hopes to meet the 20% target (an average for A LMIC) by 2015; however, given the structural challenges in Ghana, it is highly unlikely. Although, this is the most likely candidate for additional fiscal space for health spending, if these new targets are not met, it is highly unlikely that additional fiscal space could be made available through this avenue.

151. **Additional external borrowing:** Net public debt in Ghana has increased from 30% (2008) to 40% (2010). The Government aims to reduce debt to sustainable levels. Given that Ghana has moved into LMIC status, additional grants and concessional loans may not be an option going forward. Therefore, additional external borrowings may not be an option.

152. The above scenarios suggest, that real growth in health spending would be (i) due to economic growth, a range between -13% to -18% (2010-2015), and (ii) due to revenue collection, a range between -1% to +27% (2010-2015). Economic growth therefore is not an option in creating fiscal space for health spending. Revenue collection may be an option for fiscal space, however, relies heavily on anticipated increased revenue collection, which does not exist currently, and given the structural challenges in Ghana is highly unlikely to be achieved (World Bank, 2011).

153. **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 should be considered a pre-condition for bringing significant additional resources into the system. Interventions aimed at improving the technical³¹ and allocative³² efficiency of health spending by, for example, using cost-effectiveness criteria to inform resource allocations, reducing leakages in inter-fiscal transfers, or

³¹ Technically efficient. Situation where it is impossible for a [firm](#) to [produce](#), with the given [know how](#), (1) a larger [output](#) from the [same](#) inputs or (2) the same output with [less](#) of one or more inputs without increasing the [amount](#) of other inputs. See also [technical inefficiency](#). Wikipedia

³² Allocatively efficient. The situation in which it is impossible to generate a larger [welfare total](#) from the [available resources](#). In other [words](#), the situation where some people cannot be made better-off by reallocating the resources or [goods](#), without making others worse-off. It [indicates](#) that a [balance](#) between [benefit](#) and [loss](#) has been achieved. Wikipedia

addressing absenteeism of health workers are examples of policies that could lead to increases in effective fiscal space through efficiency gains.³³

3.4. Health Insurance Providers

154. *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, significantly expand enrolment, and earmark substantial resources to support the system.

155. The National Health Insurance Act (Act 650), 2003 was a huge accomplishment in Ghana. The Government had found a solution to the fluctuating and declining public resources supporting the health sector. The National Health Insurance Fund (NHIF) was created. The rationale for setting up NHIS was “to remove financial barriers to utilization of health care” (2000). Despite these accomplishments it is debatable whether NHIS has been able to achieve its objective. The discussions below, will explore, to the extent possible, the achievements and challenges.

Box 4: The National Health Insurance Act

The National Health Insurance Act (Act 650), 2003 was established to:

- secure the provision of basic healthcare services to persons resident in the country through mutual and private health insurance schemes;
- put in place a body to register, license, and regulate health insurance schemes and to accredit and monitor healthcare providers operating under the health insurance schemes;
- establish a national insurance fund that will provide subsidy to licensed district mutual health insurance schemes (DMHIS); and
- impose a health insurance levy and to provide for related matters.

156. *Institutional Structure.* Ghana’s approach pragmatically builds on the existing system of district mutual health insurance schemes (DMHIS) in terms of transitioning toward a uniform national system. Initially the program (1995) started with a community-based health financing program. In 2003, through a National Health Insurance Act, the government scaled the community-based program to a national program, however, the DMHIS still worked with independent boards. The NHIS includes national and local institutions: NHIA, NHIF and DMHIS. The NHIS has a governing body (the council or the Board) that is the regulator and responsible for the direction of the policies of the scheme, and for the appointment of the employees. NHIA (the Authority) and NHIF (the Fund) are central bodies. The NHIA is the purchaser and payer of services, and the manager of the fund and administration of the scheme and provides accreditation and technical assistance functions. The NHIF provides the financing and the reinsurance functions for the DMHIS. The latter is the local institution and provides functions of revenue collection/ premiums from the informal sector workers, financing (district pool), and purchasing services from public and private providers.

³³ Tandon & Cashin, 2010

Table 13: Summary of the Functions of the NHIS

	DMHIS	NHIA/NHIF
Enroll population, provide health insurance registration;	X	
Set HI premium rates (not actuarially estimated, set differently by each DMHIS), parameters set by NHIA;	X	
Collect premiums from paying members (informal sector workers);	X	
Collect subsidies from NHIF on those enrolled under the exempt category of the NHIA;	X	
Collect reinsurance from NHIF (against deficits in spending)	X	
Provide subsidies (against exempt beneficiary enrollment) and reinsurance to DMHIS (against deficits), parameters set by NHIA		X
Accredit health providers		X
Contract service providers (those who are NHIA accredited) and to agree with them on service provision, prices charged, and beneficiaries to be covered (prices have now been standardized by NHIA);	X	
Make payments against claims submitted (for services and for drugs) by health service providers (processing is now being centralized under the central claims processing center);	X	X
Monitoring and Evaluation		X

Source: Author, 2011

157. *There are about 145 DMHIS in the country, and they are registered as a company limited by guarantee.* They are small risk pooled groups, and not necessarily financially sustainable, nor are they able to address the concerns on the coverage of the poor. They therefore rely heavily on the subsidies and reinsurance from NHIS for their financial sustainability. There is accountability on paper, but efficient functioning is questionable, as is evident from the under-reporting of data from DMHIS.

158. *Through the refinement of the National Health Insurance Bill (2011), there was an intention to centralize the NHIS, that is, dissolve DMHIS, and instead create district offices of the NHIS.* However, it is not clear if the centralization will push through, and to what extent. There are several economies of scale that can be gained from centralization; however, there is also the risk from centralization, such as losing the close links that the DMHIS have formed with the beneficiaries and the providers. Ghana is one country that started with a community-based program, and kept the decentralized and independent nature of the DMHIS alive, while centralizing the program. However, given the weak regulatory enforcement under NHIA, several problems occurred, such as weak information systems, weak reporting, limited information of beneficiary enrollment, and insufficient payments to providers. Also, the lack of information technology, and inspection systems, prevented a proper analysis and audit of the claims, which were initially being processed by the DMHIS. This remains a problem to date, and until appropriate systems are developed, will continue to accelerate the problems of claims processing and payments.

159. *Financing Structure.* Ghana's demand side health financing model offers a mixed source of financing, although a larger reliance on tax-based financing (general taxes, Value Added Tax [VAT] and payroll taxes). Recent discussions in the past few years on the one time premium, suggested the Government may be keen to move more fully towards a tax-based system.

Table 14: Ghana has a "hybrid" health insurance model

Health Insurance modality	Financing	Management
National Health Insurance	General taxes (VAT) (for exempt group)	Ministry of Health (MOH) develops policies National Health Insurance Council (NHIC or the Board) is the regulator of the DMHIS (but not private schemes) National Health Insurance Authority (NHIA) is the secretariat of the NHIC, manager of the NHIF, with responsibilities for accreditation, actuarial analysis, and purchaser of services and payer for services National Health Insurance Fund (NHIF) mobilizes and manages resources (VAT, SSNIT, and investment) National Health Insurance Scheme (NHIS) includes the complete system and is responsible for the benefits and obligations to the beneficiaries
	Payroll taxes (SSNIT for formal sector workers)	
	Returns on Reserve (for operations costs)	
Community based health insurance (DMHIS)	Premium (for informal sector workers), Subsidies from NHIA (VAT for exempt group and payroll taxes for SSNIT contributors), and Any reinsurance from NHIA (for deficits against claims payment and for operations costs)	DMHIS -- Elected boards from membership and district representation Functioning office and staff (manager, M&E, claims processing, accountant)
Commercial voluntary insurance	Premium (for informal sector workers), Other sources of financing not known	private mutuals, private commercials

Source: K. Saleh, 2011

Sources of Revenue

160. *In 2003, Ghana decided to earmark some of their revenue for health*, contrary to the general advice of the International Monetary Fund (IMF), which generally does not support earmarking government funds. However, prior to this time, the public sector contribution for health was dismal and fluctuating. The public sector contribution was about 1% of GDP. While 44% of total health expenditures were contributed through general taxes, 44% came from household out-of-pocket. Further, a significant proportion of budget was for salary and benefits, while the non-salary recurrent budget was very low. The Government of Ghana aimed to improve the health conditions of its population, and therefore earmarked funds for non-salary recurrent spending, by creating the NHIF.

161. *NHIF receives most of its revenue through value added taxes and levies.* Ghana has selected a hybrid model of health insurance. NHIF is financed through earmarked contributions: (a) sales taxes - VAT and levy (2.5 percentage points), which covers largely the exempt groups, (b) payroll taxes - Social Security National Insurance Tax (SSNIT), at 2.5 percentage points, and which covers largely the SSNIT contributors and pensioners, and (c) voluntary premiums, which cover largely the informal sector. NHIF is largely taxed financed, with over half of its income from VAT, about one-fifth from SSNIT

contributions, earnings from fund investment, and a very small portion from voluntary premium collections.

Table 15: Ghana, Sources of Financing for NHIS

NHIS sources of financing	2008		2009	
	GHC, mll	%	GHC, mll	%
VAT and Levy	218	62%	263	61%
SSNIT	60	17%	67	15%
Premiums from Informal Sector	18	5%	17	4%
Interest earned on NHIF reserves	36	10%	76	17%
Other Income	0	0%	1	0%
Sector Budget Support	17	5%	10	2%
Total	349	100%	433	100%

Source: NHIS financial reports (2011).

162. ***Equity implications of revenues.*** Some of these revenue sources are progressive and some regressive:

- The exemption of certain groups identified as under-served, is progressive;
- VAT is considered progressive³⁴, given that the economically better-off are spending more than others;
- Payroll taxes are generally considered regressive if they are flat payment for each income group, sometimes with income ceilings, and because assets are not taxed (although income taxes are considered progressive as higher incomes pay higher % taxes). However, in Ghana as over 70% of the workforce is in the informal sector, this could then be considered progressive;
- Voluntary flat premiums are generally considered to be regressive, as all income groups are paying the same, as the poor pay a higher percentage of their income. Within this category of informal sector workers, both the rich and the poor are present. Ghana's voluntary premiums could be considered geographically progressive, as different geographical areas offer different rates (ranging between GHC 7.20 to 48 per person per year). For now, it is not differential by income groups.

Premium Rates

163. ***NHIS premiums and subsidies are not actuarially estimated.*** The formal and informal sector workers must pay an annual premium to enroll under NHIS. Whereas the formal sector contributions are covered in most part through employer/employee payroll tax contributions. As a result the collection of premiums from the informal sector workers (the informal sector is about 70% of the workforce) has been a challenge. The premium is however considered to be progressive based on geographical differentials (ranging between GHC 7.20 and GHC48 per person per year). However, the actuarial study showed that on average people paid GHC8.50, or at the lower end of the premium range. The premium rates are not actuarially determined, and are considered to be reasonable but low relative to the actuarial estimates. There is a large exempt group, premiums for whom are fully subsidized (GHC12 per person per year in 2008, and later increased to GHC18 per person per year in 2010) by the central government. At the

³⁴ Refer to The World Bank. 2012. Republic of Ghana: Joint Review of Public Expenditure and Financial Management. The World Bank, Poverty Reduction and Economic Management 4, Country Department West Africa 1, Africa Region. Forthcoming 2012

review of the recent NHIS enrollment figures, about 68% of NHIS registered beneficiaries were from the exempt group. The population of Ghana, except those exempt from registration fees, is expected to pay for registration and for premiums.

Box 5: What is the "one time premium" policy to be introduced by Ghana?

The Government's consideration in introducing "one time premium" is to attain universal coverage under NHIS (increase population coverage from 70% to 100%). This was one of the 2008/09 campaign/political commitment, and so NHIA was looking into moving this agenda forward, but the details of what the one-time premium would entail is still under discussion.

The Government expects that the "one-time premium" (or rates), which is voluntary, will increase enrollment of the informal sector workers. These premiums (or rates) are not actuarially estimated, as it is not easy to estimate a lifetime premium. There is current discussion for this rate to be GHC50/person. This rate, although higher than their current premium rates, is only once in the lifetime. If this had been calculated through a model, the total cost of the lifetime premium would be no less than GHC1,200 per person (for e.g., a 18 year old person paying an annual premium of GHC50/person/year). However, the premium (or rates) amount is not large enough to cover a lifetime of premiums (if that had been actuarially calculated).

Another consideration for the Government is to treat this one time premium, as not premium, but a one-time registration fee. The current system of collecting fees and premiums from the informal sector workers is difficult and the costs of collection may be high (relative to the revenue earned). The additional revenue from this one-time premium (or rate) will not really help in generating higher revenue. It is not seen as a solution to reach financial sustainability. Currently the population has to pay a very small amount for periodic registration (once in 5-years) and annual renewal fees, and annual premiums, and instead of charging 5-yearly registration fees, the population could certainly benefit from registering only once in their lifetime, but continue to pay premiums annually. The premium rates are also currently flat rates for all income groups. This is therefore regressive, especially as they are not offered with tiered pricing (higher income pay more). The latter option could be considered by NHIA as they move towards setting up the details of implementation (that could be progressive).

The "one-time premium" will only affect those among the informal sector workers who can afford to pay and who are not risk averse and find NHIS beneficial. It will not affect the exempt group, and those who cannot afford to pay. Essentially, it may target on a group representing less than 30% of the population. One important consideration is that the immediate impact of this one-time premium on NHIS is increased medical expenditures (without a significant increase in revenue).

The Government needs to understand better some reasons for low enrollment into NHIS, despite that fact that the current premium rates are fairly affordable for many. Voluntary enrollment should be determined by the beneficiaries' willingness and/or affordability to pay these premiums. The "one-time premium" policy did not necessarily consider the reasons for the current limited-enrollment: is it limited knowledge and/or access to DMHIS, lack of demand or faith in the current health care system/benefit package offered by NHIS, and/or affordability issues? The "one-time premium" policy also did not take into consideration that among the informal sector workers are those with liquidity constraints -- the poor (who are indigents, but currently not defined as such within the NHIA). For this group, NHIA will eventually have to refine their definition of "indigents" under the exemption policy, and will have to cover them under general taxes. It is suggested that single payer systems are generally progressive because of the exemptions they can offer to under-served populations. So essentially, the one-time premium affects those in the informal sector who can afford to pay, as they will certainly find this rate attractive to buy-in.

NHIA seems to be moving its discussion more and more into a tax based revenue source. NHIA in parallel is exploring discussions with the Parliament to increase the health insurance levy through increasing the contribution of VAT for health insurance from 2.5 to 3.5 percentage point (or from 20% to 25% of VAT income). Essentially, the VAT and levy will then pay for all those in the informal sector (exempt and non-exempt), as the one-time premium will not help with revenue generation. There is no talk about an increase in the overall collection of Levy or SSNIT. The proposed increase is only on the contributions of VAT and levy for NHIA. There is an opportunity for them to

broadly assess the situation and dialogue with MOFEP on what other sources of revenue could be tapped, such as from other oil and toll taxes.

As NHIA seems to be moving most of its revenue base to a single source of income -- as it is currently moving more and more to VAT and levies, and some from SSNIT (and not much from premiums) -- it will be important to make sure that the base of its revenue is not too adversely affected by economic fluctuations. It is also suggested that a single source of financing may have some risks, due to its predominant reliance on a single Government revenue base. It will therefore be important to see that the actuarial analysis has built the appropriate inflationary increases, and that the revenue base reflects those as well, as medical cost inflation is generally higher than general inflation.

Source: K. Saleh, World Bank, 2009

NHIS Benefits Package

164. *Services offered to those enrolled in NHIS are curative in nature and extensive.* Ghana's NHIS is expected to cover at least 95% of all burden of disease, and covers curative services and curative drugs offered for outpatient and inpatient care for those who are covered under NHIS. However, there is an exclusion group of services and drugs of vertical programs covered by MOH, and of those including some chronic and long-term illnesses. HIV-AIDS treatment has been financed mainly through external partners (e.g. Global Fund). Family Planning services are covered under NHIS, but family planning commodities, and some other services and drugs must be financed out-of-pocket³⁵.

Box 6: Benefit Package Exclusion

The following health procedures are excluded from the NHIS Benefits List (2011)

- Appliance and Prostheses including Optical aids, Heart aids, Orthopaedic aids, dentures etc.
- Cosmetic surgeries and aesthetic treatment
- HIV Retroviral drugs
- Assisted Reproduction (e.g. Artificial Insemination) and gynecological hormone replacement therapy.
- Echocardiography
- Photography
- Angiography
- Dialysis for chronic renal failure
- Organ transplantation
- All drugs that are not listed on the NHIS list
- Heart and Brain Surgery other than those resulting from accidents
- Cancer treatment other than breast and cervical
- Mortuary Services
- Diagnosis and treatment abroad
- Medical examinations for purposes other than treatment in accredited health facilities (e.g. Visa application, Education, Institutional, Driving license etc)
- VIP ward (Accommodation)

Accreditation

165. *The NHIA is responsible for conducting accreditation and for providing the accreditation certification to providers.* The Accreditation standards are mature, but primarily rely on input based standards on infrastructure and personnel. Facility service performance indicators are not included. The

³⁵ The following services are excluded under NHIS: Cancers except cervical and breast cancers, Dialyses for chronic renal failure, heart and brain surgeries, etc.; Services covered under government vertical programs (immunization, family planning etc); Drugs not listed on the NHIS drugs list.

NHIS has contracted services provided by both public and private sectors, covering outpatient care, diagnostics, and inpatient care at hospitals, health centers, CHPS and pharmacies. This is a great start; however, the accreditation process has been relatively slow when it comes to covering the private sector. Many private sector facilities do not meet the minimum standards, and many are still to be reached. In the initial years, the NHIA decided to give blanket accreditation to all public sector facilities (2006-2011). Many of them did not meet the minimum standards. A recent study indicates that at least 45% of health facilities were unable to meet minimum standards (2010/11). As NHIS accreditation renewals are coming up, the NHIA is in discussion with the public sector facilities to ensure that they have significant plans to meet at least the minimum accreditation standards.

The Provider Payment Mechanism

166. ***The provider payment mechanism is one cost controlling measure, but can be improved upon.*** Ghana has a fee-for-service (FFS) system, and NHIS accredited providers are reimbursed for services provided (inpatient and outpatient care) and for drugs prescribed to NHIS beneficiaries. The Ghana diagnostic related grouping (G-DRG) is applied to all services: outpatient and inpatient care at clinics and at hospitals. 546 codes are used under G-DRG. Unlike the classic diagnosis related grouping (DRG), as applied in many OECD countries, the Ghana system does not include drugs, and for which claims are separated. The G-DRG also uses multiple rates, separated for public and private providers. Because the former receive salaries through budgets, the G-DRG rates are lower (as it excludes the salary portion, which is not the situation for the private sector). The G-DRG rates for a particular service may differ by type of facility – tertiary versus secondary hospitals, or hospitals versus clinics. The current system can have some concerns: (a) difficulty in administration, as all primary health care consultations also have ex-post G-DRG reimbursements, (b) diagnosis may not be related to drugs prescribed, as it is not bundled together, and (c) little control on fraud, as anecdotal evidence shows many cases of more expensive drugs prescribed for a simple treatment. NHIA is however piloting a capitation model to cover primary health care services, and this could result in efficiency gains. Further, the NHIA is also considering an assessment of the G-DRG system to understand the bottlenecks.

167. ***NHIS has an opportunity to indirectly influence lower drug prices in the market.*** The NHIS has their own medicines list, and which includes those from EML, and some additional. Until recently, NHIS reimbursed providers for whatever drug charges were claimed; however, recently standardized prices have been set. These prices are determined from market surveys, and whereby mid-retail prices (median) are selected for each drug to be reimbursed. The price reviews place approximately every two years. The NHIS price standards are expected to help influence market prices.

Box 7: A description of G-DRG rates

The NHIS payment mechanism is complex, as it has a grouping of 546 G-DRG's which are applied at all levels of care. The prices for Outpatient care and Inpatient care are different. For Inpatient care there is also a difference in prices for public hospitals and for private hospitals. Furthermore the prices for the hospitals are different depending on the type of hospital (tertiary hospitals have a higher tariff than secondary hospitals).

The G-DRG system causes medical cost inflation because of tariff creeping. Tariff creeping means that providers have an incentive to shift to a GDRG which offers a higher tariff: for example, more cases are reported as complicated malaria rather than normal malaria. If the gate-keeping system is not working well the NHIS has to pay for an outpatient GDRG at hospital rather than clinic, or for an inpatient GDRG rather than an outpatient GDRG. It is important to monitor the developments in healthcare and to estimate medical cost inflation. It is important therefore to have a good database which allows analysis by GDRGs, by providers and GDRGs, and by prices and providers and DRGs. This information is also necessary for the calculation of the overall consumption of healthcare. The current information is insufficient. These amounts should be in line with the money paid and vice versa. This is also true for the membership database. The contributions collected for healthcare should be linked to the financial information. Healthcare should be in line with the number of registered members and the average contribution paid.

For the Health Care Providers supported by the Government, the G-DRG tariff does not include the following³⁶:

Health care providers	Cost not included in tariff
Ghana Health Service and Teaching Hospitals	All Human Resource (HR) on Government's payroll. HR on Internal Generated Funds (IGF) is included in tariff. Capital and Equipment costs
Christian Health Association Ghana (CHAG) health facilities	All HR on Government's payroll. HR on IGF is included in tariff.
Quasi-Government health facilities	All HR on Government's payroll. HR on IGF is included in tariff. Capital and Equipment costs.

Source: R. Hendriks, 2010

168. **Supply-induced demand.** The provider payment mechanism introduced in Ghana in 2005 is an ex-post payment, after services are provided, largely fee-for-service system. Even though a diagnosis related group (DRG) system was proposed, it was only for services and generally had the incentives of a fee-for-service (FFS) system. A FFS mechanism was applied for drug cost reimbursements. NHIS beneficiaries receive free care at point of service, while providers must claim fees from NHIS after service is provided. The purpose of introducing this payment mechanism was to improve service use, which before NHIS's introduction had been very low. However, ex-post fee-for-service type payment mechanisms create an incentive among providers to offer more services. This leads to supply-induced demand. Evidence suggests that in Ghana health service use has increased overall, but there is little in-depth analysis to understand how much inefficiency there is in the system due to unnecessary use. Data from medicine use suggests that more antibiotics were prescribed than necessary, and more patients were identified to have complicated malaria, and were therefore prescribed more sophisticated drugs. Further, assessment on claims data would provide a better understanding of what types of services were provided, and whether they were necessary for treatment.

169. **Moral hazard.** The NHIS basic benefits package is both comprehensive and does not require copayments, deductibles, or have reimbursement ceilings by type of service. This means that NHIS beneficiaries had few restrictions on the types of services or the quantity of services they can demand. The limited data available for analysis prevents a clear understanding of consumer behavior. Most services provided by GHS were for outpatient care, and it is possible that NHIS beneficiaries accessed

³⁶

primary care services more often than they would have otherwise. Gatekeeper system is not effective, and nor is an adequate referral system.

Claims Payment

170. ***NHIS spending on claims is growing increasingly.*** Health spending has been increasing, while revenue generation has been stable. While revenues increased by 24%, spending increased by 46% in this period (2008-2009). Claims made up 81% of total spending in 2009, having increased from 73% a year earlier. Between 2008 and 2009, claims payment increased by 63% (in nominal terms). Most NHIS spending (73%) was allocated for claims payments to providers (2008). Out of a GHC 198 million on claims, 69% was for outpatient services and drugs, and the balance was for inpatient services and drugs. It is expected that about 40% of overall claims expenses went towards drug costs. Under the initial system, and before the central claims processing center (CPC) was created, the funds were channeled as reinsurance to DMHIS.

Table 16: Ghana, NHIS Expenditures (2008-2009)

NHIS Expenditure	2008		2009	
	GHC, mll	%	GHC, mll	%
Claims Payment	198	73%	323	81%
Admin and logistical support (DMHIS)	12	4%	8	2%
Support to MOH	39	14%	38	10%
Operating Expenses (NHIA)	5	2%	8	2%
ICT Solutions (NHIS)	19	7%	16	4%
H/O & R/O buildings		0%	5	1%
Total	273	100%	398	100%

Source: NHIS financial reports (2011).

171. ***Claims processing leads to inefficiency, especially given the large manually processed volume generated for outpatient consultations.*** Currently, Ghana processes 19 million claims per year, of which 60% are for outpatient and 40% are from inpatient care. According to the NHIA, at least 45% of these claims are approved without requiring adjustments or having queries, and about 65% of “clean” claims are expected to be paid within 60 days of claim receipt from providers (2010). Outpatient service claims are more or less standard, but the current system (G-DRG) requires ex-post claims to be submitted and processed before reimbursements can be applied. This has created some inefficiency in the system, especially for the simple outpatient services at clinic level, as claims have to be prepared, processed, and payments reimbursed. Delays in payment have resulted from liquidity constraints, and from timing of the processing cycle. Several providers have complained that the delay is affecting their performance, as they are unable to purchase drugs and other provisions on time. The NHIA had explored the option of upfront reimbursement of 40% of the outpatient services at submission of claims, and the balance reimbursement after adjudication. The NHIA is now exploring a capitation pilot for primary health care in the Ashanti region, and this is expected to improve system efficiency, and to reduce the ex-post claims reimbursement load for primary care clinics.

Box 8: Efficiency measured for claims submission, processing and reimbursements

The current NHIS claims tracking system is fairly reliable in capturing claims submission data and efficiently tracks the reimbursement data as well. The sample included claims from tertiary, secondary and primary providers. The robustness of the system is however challenged when it comes to capturing claims processing data. The study shows that there are significant time lags at each stage of the claims cycle and the overall cycle averages beyond the 90 days stipulated by law, especially for regional and teaching hospitals. By contrast, the primary health care facilities captured in the sample are able to significantly meet the mandated 90 days timeline.

Claims are relatively efficiently submitted by clinics compared to hospitals. From the data reviewed from CPC, less than 25 percent of claims from both the teaching and regional hospitals are being submitted within the stipulated 60 days. The majority of claims captured in this sample for teaching hospitals were submitted after 90 days of the patient visit (88 days on average, 2010), while for regional hospitals the majority of claims are submitted within 90 days of patient visit (74 days on average, 2010).

The data from the Osu Klottey Mutual Health Scheme reveals that the majority (54.7%) of claims are submitted within 30 days of the patient visits. In effect, primary care providers captured in the sample are the only group able to meet the stipulated 60 day timeframe for a significant proportion of claims. Nonetheless, about 10 percent of claims were submitted beyond the sixty day deadline with a little less than 20 percent of the claims submitted over 90 days after the patient's visit.

Claims are relatively efficiently processed for clinics by DMHIS. DMHIS are mostly processing clinic payments for services and drugs, while CPC has started processing the more heavy submissions of OPD and INP claims from regional and teaching hospitals. The sample data revealed that CPC approved the majority of claims submitted by the regional hospitals (100%) and teaching hospitals (65.2%) within 60 days. However, no claim is approved within 30 days of submission for teaching hospitals. The Osu Klottey DMHIS approved two thirds of claims submitted within 30 days. It is important to note that within the sample about 13.3% of the claims are still pending after 90 days (Dec. 2010). DMHIS are closely located to health providers, and have close relationships with them to follow-up on their claims.

Claims are relatively efficiently reimbursed for clinics by DMHIS. As observed with processing, most of the claims from teaching hospitals (69.4%) and regional hospitals (88.6%) are reimbursed within 60 days of submission by CPC. This is double the time frame stipulated. At the Osu Klottey Scheme, only one third of the claims submitted are not reimbursed after the stipulated time frame of thirty days.

Source: Micah (2010). Note: Data is from Claims Processing Center and From Osu Klottey DMHIS

NHIS Administrative Costs

172. ***NHIS administrative costs appear to be reasonable.*** Administrative costs were about 8% of NHIS total spending, which includes costs incurred by NHIA and by DMHIS. There is another portion of spending (20%) that is allocated to partner institutions, such as for capital investment, but the selection process and arrangements are not transparent, and 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.

NHIS Financial Sustainability

173. ***NHIS financial sustainability is threatened.*** The actuarial analysis using 2008 as the base year³⁷ showed that given the current income stream and the expenditures outflow (rising claims expenditures), the NHIS would become insolvent by 2013. When the fund was created, earlier estimates (World Bank, 2007) had suggested NHIS would be financially sustainable for at least 5-years (2008-2013), however, the assumptions based on earlier estimates were that registration into NHIS would be much lower. However, registration has grown faster than expected, and credit for this goes certainly to the exemption policy to capture the vulnerable population, and to the efforts made by the DMHIS, who being at the district levels, benefit from subsidies for coverage of the exempt groups. They had all the incentives to increase enrollment and increase them fast. However, as registration grew, so did use of health services, and claims. The latter has grown exponentially.

174. ***NHIA is considering options to increase its tax revenue base.*** NHIS is exploring a few options to improve the revenue base and to improve the reserve fund, which is declining. One option they are considering is to increase the VAT and levy contributions for NHIS from 2.5 percentage points to 3.5 percentage points. Although, this intervention is at the Parliament for discussion, it may be a challenge to attain, given the already significant earmarking of government revenues to health as well as the country's overall fiscal space situation.

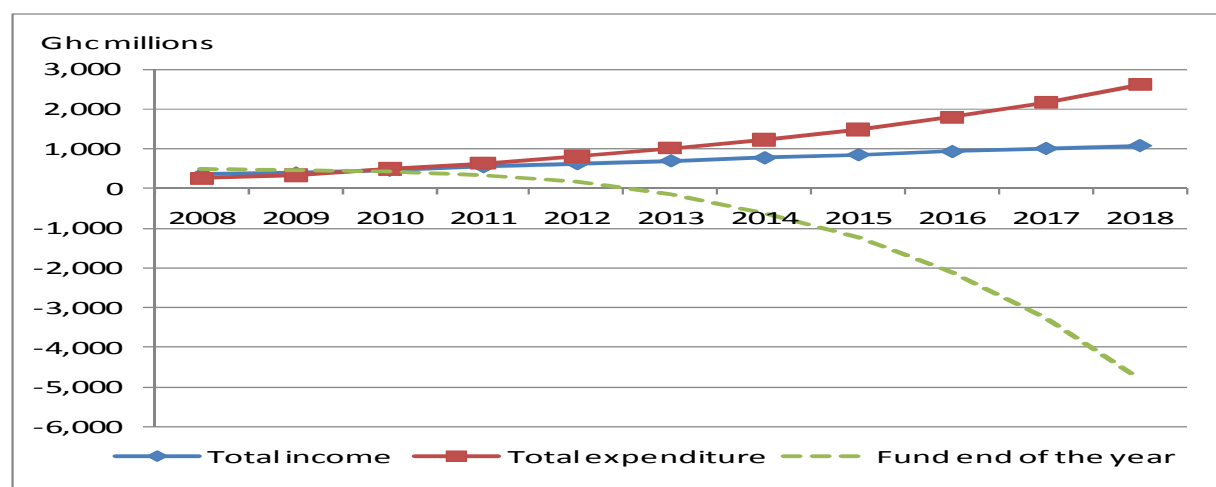
175. ***NHIS is considering options to give incentive to increase enrollment among the informal sector workers.*** The NHIA is also discussing the "one-time premium" option. This is a new concept, and unclear on what exactly will be charged under the "one-time" payment. If it is a premium, it is unclear how will it be actuarially estimated for the lifetime. However, even if it goes through, to provide incentive to increase enrollment, it would not necessarily increase revenue over time. It may however lead to increased costs over time, given the increased registered persons and the inability of most individuals to pay an actuarially sound one time premium.

176. ***One option is to provide incentives and increase enrollment for the informal sector workers.*** One way to increase enrollment and revenue is to make this a mandatory program for the informal sector workers as well. It would improve the enrollment of the informal sector workers, who pay premiums.

177. ***NHIS could explore ways to improve efficiency gains.*** As revenue enhancements do nothing to improve spending efficiency, efficiency gain could also be explored including refinements of the payment mechanism for primary health care to reduce costs. It would also reduce administrative inefficiencies from claims processing.

³⁷ The 2008 data from NHIA was not the most reliable, however, given data constraint this was the only option available to the Bank team. The simulation is therefore not robust, and until more improved data is available, this simulation findings is reported. NHIA is in the process to improve their baseline data using 2009 as the base year. Further actuarial analysis will be conducted once this more robust data is available.

Figure 40: Ghana, Financial Sustainability Forecasts for NHIS (2008-2018)



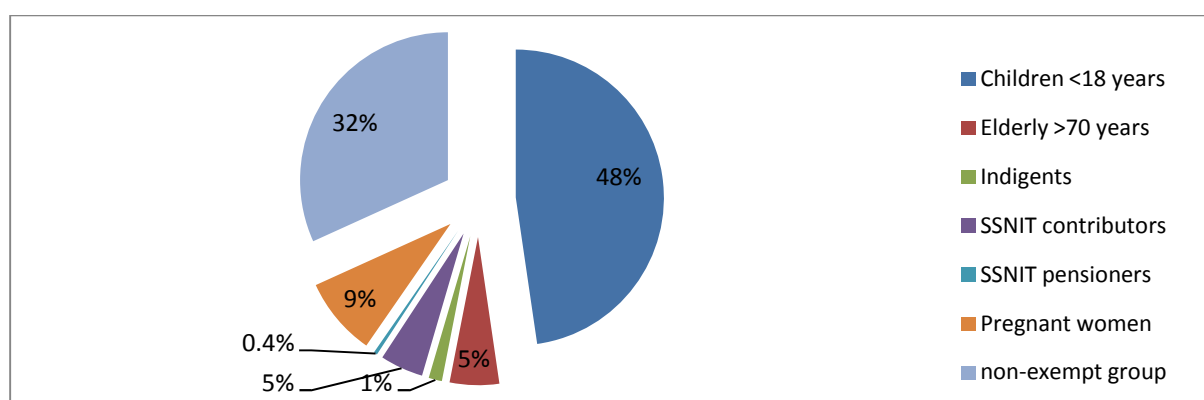
Source: R. Hendriks, Actuarial Report, World Bank, 2010

Note: data was received from NHIA in 2009/10, and the reliability of it is not confirmed.

Eligibility

178. *Most registered under NHIS are from among the “exempt” group.* All of the population of Ghana is eligible to enroll, although, some are provided exemptions from paying premium, while others are expected to pay premium. Of the 8.2 million people with NHIS valid cards in 2010, almost half were children under-18 years. All pregnant women are eligible for free maternal care, as are all elderly above 70 years for free care. These were 9% and 5% of beneficiaries, respectively. Indigents made the smallest proportion of NHIS beneficiaries (about 117,000 individuals). While the exempt group took the largest proportion of NHIS membership (68%), the paying members (informal sector workers) were 32% of total 2010 membership. The poor are not necessarily covered as they are difficult to reach. The indigents could be better targeted if identified through income/consumption profile.

Figure 41: Composition of NHIS membership, 2010



Source: NHIA, data from Actuarial department (2011)

179. *The NHIS exempt group is based on demographic profile, and not on income/consumption profiles.* Twenty-seven percent of Ghana’s population resides under the poverty levels, and are not fully covered under the NHIS (perhaps one-fourth of them are covered). Their health risks and vulnerability are of a large concern. Reaching out to households has not been easy, and identifying the poor (or the indigent) has been a big challenge. The country does not yet have the means of identifying the poor,

although, it has come up with a community-based targeting methodology that was recently piloted and is in the process of being scaled up. However, it will take a few years before the population is mapped under the “common targeting”. Meanwhile, NHIS has been able to encourage the vulnerable population to register by offering them free or subsidized enrollment. The vulnerable population was identified using demographic groupings, such as children under-18 years, elderly over-70 years, and all pregnant women (generally women 15-49 years). NHIS uses a very stringent definition for “the indigents³⁸” with no proper operational guidelines, which makes it very difficult for DMHIS to operationalize the identification of this beneficiary group. The coverage of “the indigents” was among the worst in the exempt group. Although 400,000 persons were to be identified in any one year, only 100,000 (25%) persons could be registered, as it was difficult for DMHIS to identify these persons. NHIS has now tried to ensure that at least all Livelihood Empowerment Against Poverty (LEAP) beneficiaries are registered with NHIS, but a very small proportion of the LEAP beneficiaries are enrolled to date in the LEAP program. The LEAP program is under the Ministry of Employment and Social Welfare (MESW). Collaborative effort is in progress between the sector ministries and the MESW to scale up the identification of the poor.

180. ***There are many challenges faced by DMHIS to identify and verify exempt beneficiaries.*** Except for the SSNIT beneficiaries, most other exempt beneficiaries are difficult to identify. DMHIS do not have information on the demographic groups in their district for planning purposes. National Identity cards do not exist, and therefore DMHIS have difficulty in verifying the beneficiaries who claim to be under the “exempt” category. Pregnant women are required to bring with them a certificate of pregnancy from health specialists. However, birth certificates do not exist in most cases, and therefore children above 18-years can mistakenly be added as “exempt”. The same is the case for elderly under-70 years. The indigents are the most difficult to identify, and many DMHIS tend to ignore this category. All exempt beneficiaries, except indigents and pregnant women, pay registration and reactivation fees. Most persons have to wait at least 3-6months to get their registration cards; however, pregnant women and indigents are covered right away. It would greatly help DMHIS if NHIA would prepare guidelines on how beneficiaries should be identified. The system as applied by SSNIT is very useful in identifying the SSNIT contributors. Such a system can also be adopted by MESW. A National Identity card would help in verifying beneficiaries.

Coverage under NHIS

181. ***Less than half of Ghana’s population belongs to risk pooling programs.*** In a short period of time (since 2005) Ghana has been able to enroll a significant proportion of their population into the NHIS. The figures on registration and valid cardholders are not consistent between household surveys and institutional data. While NHIS institutional data suggests at least 55% of the population are registered with NHIS and 43% of the population have NHIS valid cards (2008), a simulation using Ghana Demographic Health Survey [GDHS] (2008) data suggests that registration was lower (37%), and that valid cardholders were much lower (32%) – at least a 10% differential between institutional and household level data. A small proportion is enrolled in private insurance commercials, mostly under an employer’s coverage (1-2% of the population). While institutional registration systems are being strengthened, the government will need to rely on parallel data validated through household surveys, such as Ghana Living Standard Survey (GLSS), or others like GDHS and Multi-cluster Survey (MICS).

³⁸ Indigents are narrowly defined and not harmonized with social welfare definition. By law, NHIS defines indigents as: unemployed with no visible source of income, no fixed place of residence, does not live with a person who is employed and who has a fixed place of residence and does not have any identifiable consistent support from another person.

Table 17: Coverage of the population in NHIS (DHS, 2008 with imputations)

	DHS, 2008 with simulation		
age group (years)	NHIS Registered	NHIS Cardholders	NHIS Valid cards (seen)
<15	3,687,485 (43%)	3,241,299	2,282,553
15-49	3,632,321 (43%)	3,228,536	2,182,452
50-69	885,00 (10%)	796,500	538,311
70+	318,600 (4%)	286,740	187,265
Total	8,523,406	7,553,076	5,190,580
%	37%	32%	22%

Source: Saleh, K (2011). Note: Author's estimates, simulation using GDHS, 2008. Institutional database is not completely reliable and the registration information will need to be tracked in parallel through household surveys.

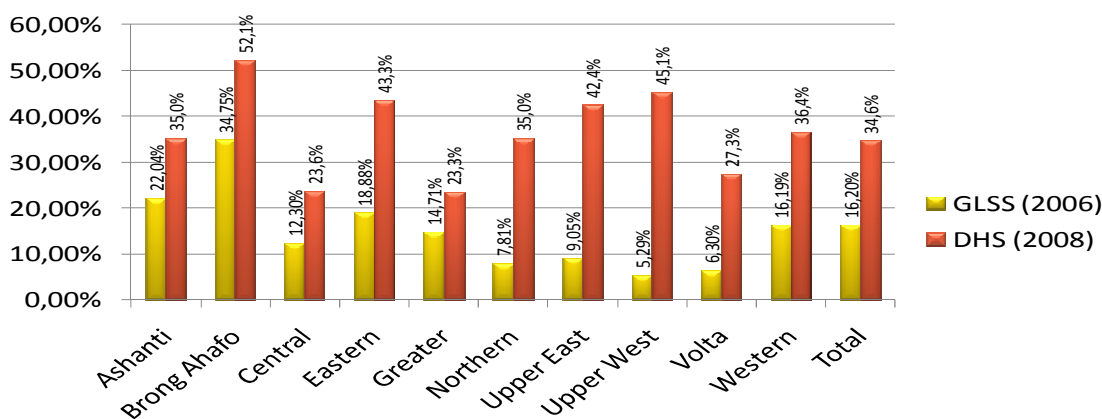
Table 18: NHIS Beneficiaries with valid cards (institutional data), 2005-2010

Beneficiaries by categories	2005	2006	2007	2008	2009	2010	2010 (%)
NEWLY REGISTERED							
TOTAL	1,348,160	2,519,702	4,316,432	4,334,266	1,993,217	3,519,589	43%
EXEMPT GROUP	1,038,280	1,730,066	2,933,121	3,091,128	1,453,131	2,503,382	(31%)
NON-EXEMPT (Informal Sector)	309,880	789,636	1,383,311	1,243,138	540,086	1,016,207	(12%)
RENEWALS (however earlier registered not renewed are not included)							
TOTAL	-	1,670	2,326,939	5,579,990	8,644,902	4,644,125	57%
EXEMPT GROUP	-	1,127	1,418,973	4,063,259	6,501,471	3,067,444	(38%)
NON-EXEMPT (Informal Sector)	-	543	907,966	1,516,731	2,143,431	1,576,681	(19%)
GRAND TOTAL	1,348,160	2,521,372	6,643,371	9,914,256	10,638,119	8,163,714	100%
% exempt	77%	69%	66%	72%	75%	68%	
Total Population (000)		21,876	22,387	22,876	23,416	23,416	
% population with NHIS registration (cumulative)	--	(3.9 mll) 18%	(8.2 mll) 37%	(12.58 mll) 55%	(14.52 mll) 62%	--	
% population with NHIS valid cards (annual)				43%	45%	35%	

Source: OPS & ICT Divisions, NHIA

182. **Wide inequity remains in NHIS coverage.** While 65% of individuals from the top expenditure quintile is registered, about 30% (ranging between 24 to 29%) of individuals from the lower expenditure quintile is registered (GDHS, 2008 and Citizen's Assessment Survey, 2008, respectively). There is disparity in NHIS coverage across regional, economic and gender lines.

Figure 42: Population registered under NHIS by regions and over time (2006-2008)



Source: GLSS (2006) and DHS (2008) from IFC (2010)

Table 19: Regional inequity in NHIS coverage

Regional data on NHI coverage women (15-49), MICS (2007/08)			
	registered w/ NHIS %	renewed cards %	valid cardholders %
Central	29.9	52.3	15.6
Northern	28.9	60.2	17.4
Upper East	30.9	68.3	21.1
Upper West	40.2	84.7	34.0

Source: MICS (2007/08)

Table 20: Quintile 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)

Risk Aversion

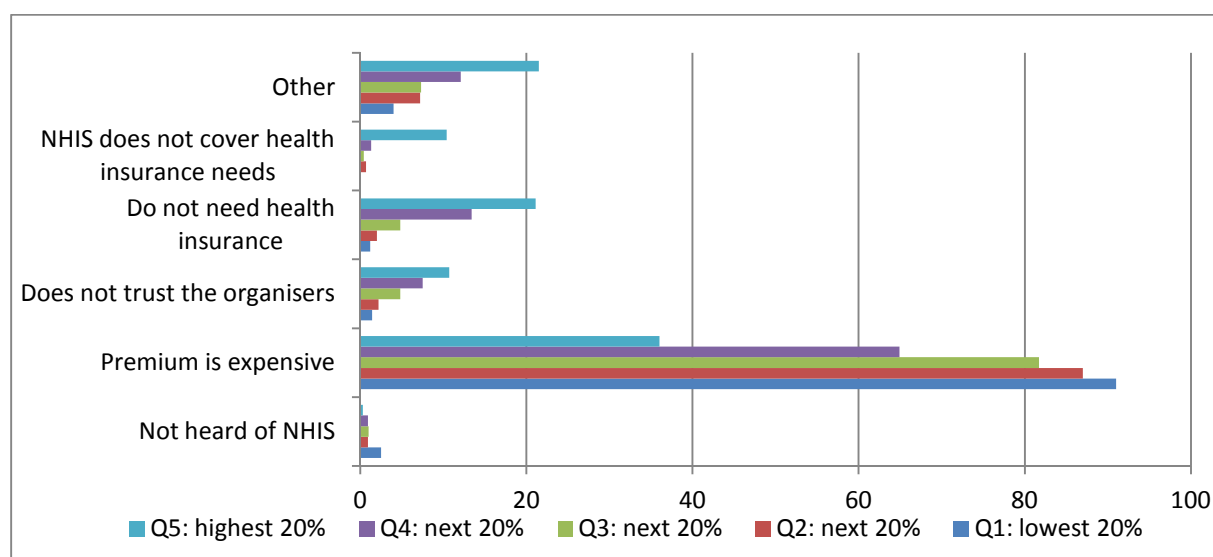
183. **An adverse selection problem exists, as NHIS is not a mandatory program for informal sector workers.** Act 650 (2003) offers the population of Ghana the option of enrolling in public or private health

insurance. Several persons are not enrolled in any program. Further, given the limited monitoring aspects, several NHIS registered persons only renew their NHIS cards if and when they fall sick. Therefore, survey results show that fewer persons hold valid cards. Some initial measures had been imposed to reduce adverse selection. For example, children <18 years would not be registered if parents were not registered, but this strategy had to be discontinued given administrative constraints. Waiting time for registration and penalty for missed renewals are some measures to reduce adverse selection.

184. ***Fewer people are holding NHIS valid cards.*** This has much to do with the administrative challenges faced by NHIS in the early years of registration. Waiting time for administrative processing of cards from time of registration could be as long as 3-6 months; however, this is not the case when it comes to renewals, however, the population may perceive that to be the case. Further, there are persons who have registered despite popular perception. Finally, the pregnant women's free coverage program started in July 2008, and even though these women were covered immediately, they did not hold a valid registration card. All this can be made more efficient through a refined and computerized beneficiaries' registration system. As system has been developed but not scaled up nationally.

185. ***There is low renewal among those initially registered?*** Access and financial barriers partly explain this phenomenon. Additionally, there is an adverse selection problem as registered members choose to renew their cards only when they fall sick, as there are no penalties, except for paying a minimal reactivation fee.

Figure 43: Reasons for people not enrolling in NHIS, quintile analysis, 2008



Source: PM&E Survey (NDPC, 2008)

Table 21: Explanations on reasons for registered persons not holding a NHIS valid card in 2008

Top 3 reasons for not holding NHIS valid cards	Urban	Rural	Total
Not as yet renewed registration	36%	36%	36%
Registered, but card not received	37%	26%	31%
Registered, in waiting period	17%	29%	24%
Total %	100%	100%	100%

Source: PM&E Survey (NDPC, 2008)

Table 22: Reasons for low renewals of NHIS cards in 2008 (% of those with expired cards)

Top 3 reason for not renewing NHIS card	Lowest 20% SES	Highest 20% SES	Total %	Remarks
Premium is too high	65%	35%	50%	Affordability. Concerns non-exempt group. Will they not renew?
Has not been sick	19%	10%	18%	Adverse selection. Feel need to go when fall sick. Will register, but later!
Waiting time for card too long	10%	28%	15%	Administrative Inefficiency. Perception from initial registration. Will they not register?
Total %	100%	100%	100%	

Source: PM&E Survey (NDPC, 2008)

Challenges faced by NHIS

186. 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 Government of Ghana and NHIS need to better address several major strategic challenges:

- **Equity and targeting issues** (regressive socio-economic profile of enrollees, coordination between NHIA and MOH). Given the stringent definition of “indigents”, some poor and near poor are required to pay premiums, resulting in non-enrollment and less equity.
- **Adverse Selection.** Adverse selection and lack of enrolment of informal sector workers result in an absence of a mechanism to enforce Section 31 (3) of the Health Insurance Law, which requires every resident in Ghana (except for military and police) to belong to a licensed health insurance scheme.
- **Revenue generation.** Premiums, taxes, and reinsurance payments for NHIS and to DMHISs are not actuarially determined and the premiums for informal sector workers are low relative to their costs of care and the revenues they generate. Further, assuming the government can implement effective targeting mechanisms, large numbers of the 65% premium exempt members are not indigent and could afford to contribute but are supported by the national health insurance levy (NHIL) contribution.
- **Benefits package.** The extensive BBP covering 95% of the burden of disease with no cost sharing may not be affordable or sustainable. Further, 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 basic benefits package is underfunded. Increases in service utilisation may not be sustainable under the NHISs current financing and provider payment arrangements: Outpatient 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.
- **Cost containment.** Rapid expansion of enrolments (now about half 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 increasing, operational requirements. Further, 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. There is a lack of incentive for referral. The provider payment systems used by NHIS are improving but have a ways to go before becoming truly effective strategic purchasing tools.

- ***Inefficiencies in administration.*** 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 enrolees. There are two competing information technology systems (one for beneficiary registration and one for claims processing) and it is not clear if these two systems are interfaced together. NHIS reimbursement delays as well as an inadequate service accounting system, make it impossible to track patient use of services over time as well as low tariffs and incomplete accreditation of non-public providers.

- ***Claims volumes are growing rapidly,*** and those coming to NHIA's Claims Processing Center(s) (CPC) will continue to grow rapidly and NHIS's claims processing and management systems are not capable of handling the current volumes much less increasing operational requirements. The current NHIA system has a challenge in going through every claim, as they are currently manually processing them. However, while the decentralized levels have easier communication with providers to investigate "rejected or disputed" claims, the CPC has a greater challenge, especially since they are further away from providers and do not have easy access to them. The NHIA lacks common standards for certain crucial coding systems such as procedures and pharmaceuticals. The current NHIA system does not provide adequate analytics for management of the scheme or management of the insurance fund.

- ***Sustainability.*** 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 2013. Further, the original health insurance law does not require reserves which are in the medium to long-term necessary for all operational health insurance funds.

187. **Specific problem areas common to many insurance entities have also emerged in Ghana³⁹:**

- ***Enrollment issues:*** difficulty identifying indigents; weak portability; unreliable eligibility authentication at provider site.

- ***Service utilization:*** inability to effectively monitor service utilization and cost; inability to gather timely data on disease patterns hampering decision making; weak enforcement of gatekeeper system (referral system), misapplication of approved tariffs.

- ***Matters related to medicines:*** inefficient Medical Supply Chain System leading to high cost of medicines on NHIS Medicines List; prescribing and dispensing of unapproved medicines; misapplication of approved tariffs.

- ***Claims processing:*** fragmented CPC; manual processing of claims leading to delayed claims payment; no fraud prevention initiative at schemes and providers.

- ***Sustainability:*** high cost of administrative inefficiencies; human capacity gaps; issues of artificial indebtedness.

³⁹ Nyongator, OP. CIT, WBI Ghana Case Study.

CHAPTER IV:ASSESSMENT OF HEALTH FINANCING AND DELIVERY PERFORMANCE

188. This chapter provides an assessment of the performance, from health outcomes, to where inefficiencies might still exist in the system, to how the population is financially protected and what is the equity in access and use to quality and affordable health services.

Key Messages

Health Outcomes

- Of the four health-related Millennium Development Goal (MDGs), two are highly likely to be achieved (child health and child nutrition), while two are not likely to be achieved (maternal health and communicable disease control) by 2015.
- Overall, Ghana has improved its health outcomes, but has not achieved the health outcomes on average found in comparable income and health spending – low middle income countries (LMICs).
- The effectiveness in the use of public funds needs to be further evaluated.

Efficiency

- Many direct sector investments as well as spending through the NHIS do not provide good value for money. Public resources could be more efficiently spent.
- Budget release and claims reimbursements are slow.
- Financing of prevention and curative care are fragmented.
- Much of the population is unable to access health care closer to them. Patients are by-passing clinics in favor of hospitals, as clinics may not have HWs and other amenities.
- More outpatient care consultations are at hospitals than at clinics.
- Some public programs directed at the poor are reaching the poor, while others are not.

Financial Protection

- Ghana is now a LMIC, but its out-of-pocket spending is still high for a LMIC.
- The population could be better protected against catastrophic illness costs, through more improved risk pooling.
- Nevertheless, households do not seem to be heavily burdened with health spending, although the poor are disproportionately affected.
- The poorer households spend a much higher proportion of their household expenditures on health, as compared to the non-poor.

Equity in Delivery of Health Care

- Use of health care has improved, but inequity exists by income and regional profiles. Regional differentials are evident in use: The Northern region stands out in low service use. The poor are disproportionately worse off.
- The private sector is an important contributor in provision of health care. The poor generally accessed services at public facilities, while the rich go equally to public and to private facilities. Urban-rural and income differentials are evident in use.
- NHIS registered beneficiaries tend to use both public and private facilities; however, a significant population of those who are not registered under NHIS, tend to use private health facilities, of which a large proportion use private non-religious/for profit facilities.
- Evidence shows that those with insurance are better off: those among the poor who are insured are able to access more care in comparison to those in the same quintile who do not have insurance coverage.

Quality of Health Services

- Health service appropriateness and quality are variable by regions and by income group, but show some signs of improvement.
- Income and regional disparities exist in access to quality care.
- The poor are not receiving as good a quality of care as the non-poor.
- Households' have perceptions of better quality of care offered by private providers.
- A consumer satisfaction survey (2008) suggested that NHIS beneficiaries are more satisfied with quality of care, than those who are not registered with NHIS.

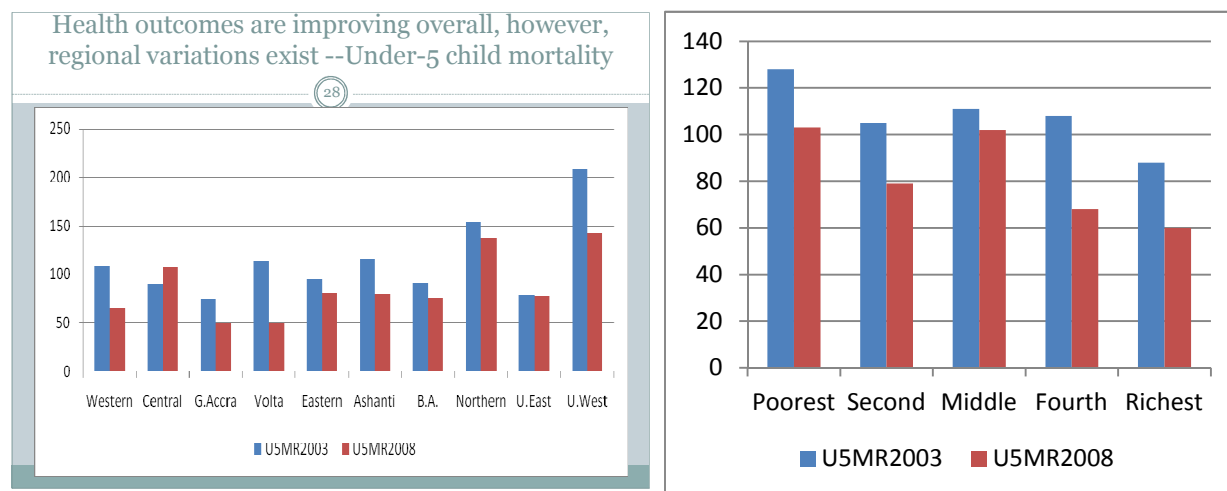
4.1. HEALTH OUTCOMES

How does Ghana fair in meeting the millennium development goals in health?

189. ***Ghana is currently off-track in meeting most of the Millennium Development Goals (MDGs) targets in health.*** Ghana however remains off-track and less likely to meet the other two targets, and especially that for maternal mortality. Ghana became off track in meeting its MDG targets, during the economic crises (1998-2003). However, from 2003-2008, it saw remarkable progress, and if efforts are accelerated and sustained, it has a good likelihood of meeting some of the MDG targets.

190. ***Ghana is not likely to meet its child mortality targets.*** Under-5 child mortality is at 80 per 1,000 live births (2008) having declined from 111 (2003). Neonatal deaths are 60% of all infant deaths. To reach the child mortality MDG target (of 53, 2015), further accelerated effort is required in targeted cost-effective interventions, focusing on neonatal age groups, the poor, and the underserved regions, such as the northern regions. The vulnerability of children however goes beyond income profiles: what is the vulnerability of the middle income profile? The recent momentum seen in under-5 mortality, post 2003, suggest a better likelihood for Ghana to meet the MDG targets by 2015.

Figure 44: Ghana, Trend in Under-5 Mortality by Regions and Income Profile (2003-2008)

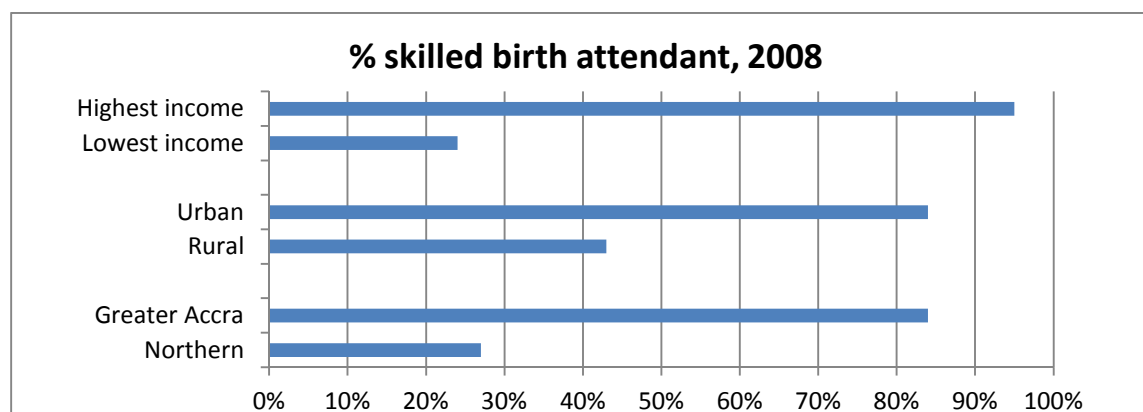


Source: GDHS, 2008

191. *Ghana is highly likely to meet child nutrition targets* (MDG Target 1B). The proportion of children under-5 years reported to be under-weight has declined from 23% (1988) to 14% (2008). The target for 2015 is 11%. Rural areas report a higher proportion of underweight children as compared to urban areas (16% and 11% respectively, 2008). Breastfeeding is universal in Ghana, but the percentage of newborns given breast milk within the first hour of birth is low (52%, 2008). Special effort is required to reach pockets of those suffering from poor nutrition, such as those among the poor, rural areas and northern regions.

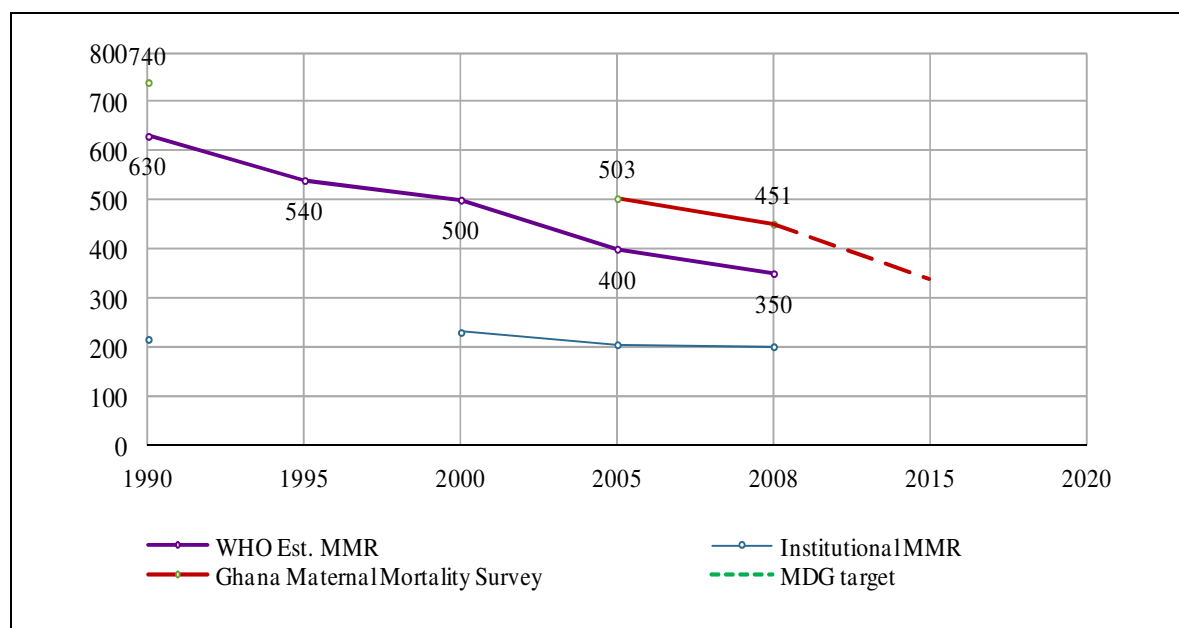
192. *The situation is not the same for maternal mortality*, which has been off-track for some time. The Maternal Mortality Ratio (MMR) was above 600 (ranging between 610 and 720 in 1990) per 100,000 live births, but was reduced by 40% in the past two decades (ranging between 350 and 451 in 2008). However this is too slow for it to meet its MDG targets (160, 2015). Skilled delivery is 59% nationally, while wide disparities exist by region, rural-urban area and income profile. The northern region reported the lowest proportion of delivery by skilled attendant (27%); rural areas (43%) reported lower rates than urban areas (84%); and the lowest wealth quintile (24%) reported rates significantly lower than the highest wealth quintile (95%) (2008).

Figure 45: Skilled birth attendants by region and income profiles, 2008



Source: GDHS, 2008

Figure 46: Trends in Maternal Mortality and Achieving MDG



Source: GDHS, 1990-2008; GHS/MOH.

193. ***Reduction in prevalence of communicable diseases is inconsistent***, MDG targets on communicable diseases, such as Tuberculosis (TB), Malaria and HIV-AIDS, have mixed results. HIV-AIDS prevalence has declined and is among the lowest in SSA. Malaria incidence remains high, while, TB prevalence has not shown significant progress to meet MDG targets.

How does Ghana fair in comparison to other countries?

194. ***Ghana shows a better performance when these indicators are compared to its neighbors in the SSA region.*** Ghana started at a much better situation on health outcomes than its neighbors in 1990. Although, Ghana still shows better health outcomes as compared to its neighbors, the proportion in mortality decline has not been as positive as some of its neighbors in the past 20-years.

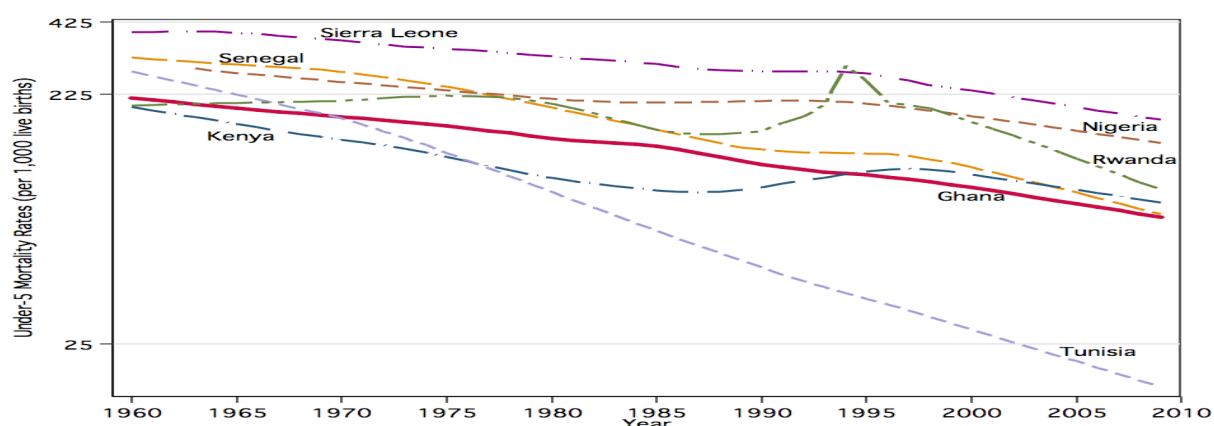
195. ***Ghana does show good performance when these indicators are compared to the other countries with similar incomes.*** Until now, Ghana was compared to the other low-income countries (LICs), but after rebasing its GDP, the situation has changed. Ghana's health outcomes, in terms of child health, maternal health, and life expectancy at birth, are below LMIC average.

Table 23: Health, Nutrition and Population Outcomes for Comparable Countries, 2008

Country	Life expectancy at birth	Under 5 mortality (per 1,000)	Maternal Mortality (per 100,000 live births)	Total Fertility Rate	Malnutrition prevalence, weight for age, (% of children under 5)	Total HIV Prevalence (% of population ages 15-49)
Ghana	57	80	451	4.0	14	1.8
Neighboring countries in West Africa						
Burkina Faso	53	169	560	5.9	26 (2009)	1.2
Cote d'Ivoire	57	121	470	4.6	17 (2006)	3.7
Togo	63	100	350	4.3	22 (2006)	3.2
Senegal	56	95	410	4.8	15 (2005)	0.8
Countries with comparable historical background						
Kenya	54	86	530	4.9	16 (2009)	6.3
Tanzania	56	111	790	5.6	17 (2005)	5.8
Uganda	53	130	430	6.3	16 (2006)	6.4
Nigeria	48	143	840	5.7	27 (2008)	3.6
Sierra Leone	48	198	970	5.2	21 (2008)	1.6
Rwanda	50	117	540	5.4	18 (2005)	2.9
Countries with comparable human development index						
Bangladesh	66	55	340	2.3	41 (2007)	0.1
Haiti	61	89	300	3.5	19 (2006)	2.0
Nepal	67	51	380	2.9	39 (2006)	0.4
Tunisia	74	21	60	2.0	3.3 (2006)	0.1

Source: Ghana Demographic Health Survey, 2008; World Development Indicators, CHIMS 2010, Human Development Report 2010

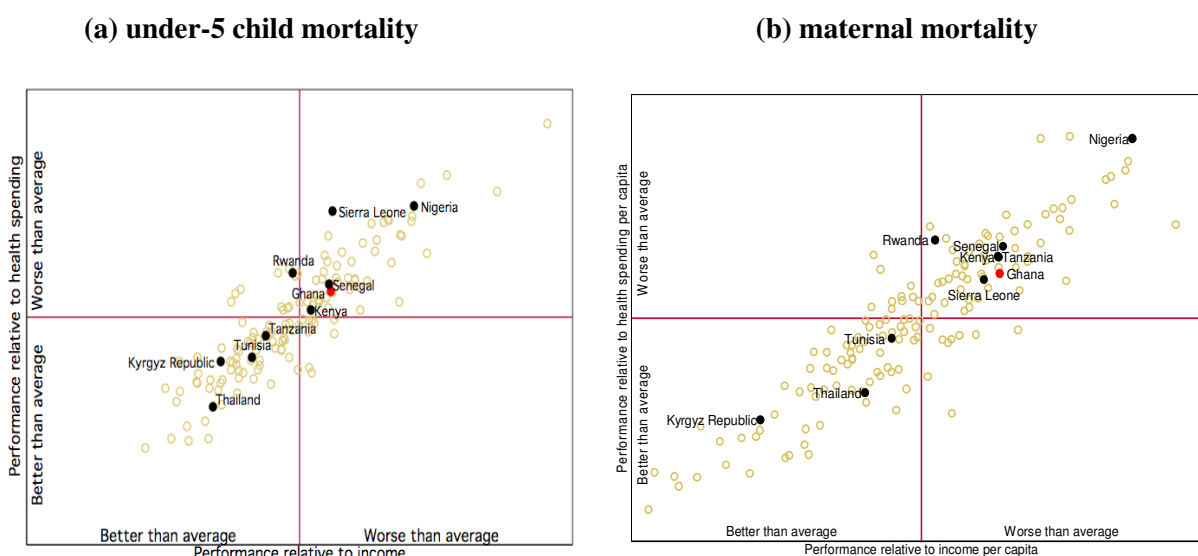
Figure 47: Under 5 mortality rate per 1000 children under 5, Ghana and select neighbors, 1960-2009



Source: WDI, 2011

Note: y-axis log scale

Figure 48: Global comparisons of health outcomes relative to income and spending, 2009



Source: World Development Indicators & WHO, 2011

How does Ghana fair in child health outcomes?

196. ***Ghana's life expectancy at birth is 62 years (2005-10), lower than the average of countries with similar income level.*** The low life expectancy is an indication of the high risk that children face of not surviving beyond their 5th year.

197. ***Ghana has invested in several cost-effective interventions to improve under-5 child health*** and to reduce child mortality. The interventions include the Expanded Program of Immunization (EPI), promotion of breastfeeding and appropriate weaning, malaria prevention and control, and acute respiratory infection (ARI) control, among others. Although, child health outcomes improved overall, they remain below average (relative to the other LMICs), as results of many of these interventions were mixed.

198. ***Coverage of some services is quite high, while others low.*** Full immunization coverage (among children 12-23 months) has increased and was at 79% (2008), but only 70% infants (under-1 years) received their vaccination in the first 12 months of life. Neonatal mortality is a high 60% of the total infant mortality rate (IMR) (50 per 1,000 live births in 2008). The primary concerns are that many births are not at institutions, and therefore many infants do not get the appropriate care at the early years of life. While 82% of infants below 2-months are exclusively breastfed, only 63% are exclusively breastfed until 6-months of age, as recommended by WHO and UNICEF. Only 86% of infants have received weaning diet by 9-11 months, contrary to WHO and UNICEF recommendation of weaning by 6-months of age. Knowledge and practice on weaning diet needs to be scaled up to improve child nutrition.

Table 24: Causes of Death among Under-5 years (2008)

Rank	Cause of Death	Percentage of Deaths
1	Malaria	18
2	Other	14
3	Pneumonia	13
4	Diarrhea	12
5	Prematurity	12
6	Birth Asphyxia	11
7	Neonatal Sepsis	9
8	Congenital abnormalities	4
9	Injuries	2
10	Measles	2

Source: WHO, 2008 Ghana Health Profile

199. ***Child health interventions have accelerated in recent times.*** Ghana adopted the integrated management of childhood illnesses (IMCI) strategy in 1998, and further expanded to include the Roll Back Malaria (RBM) program in 2001. This was critical to address malaria, which is the top most morbidity and mortality profile of children under-5 years of age. The new child health policy and strategy was launched in 2010, with emphasis on community-based interventions and facility level care to scale-up integrated management of childhood and newborn illnesses (IMCNI). Given that at least 60% of infant mortality is among the neonates (first one month of life), this engagement is critical. Further, the programs are building community-health interventions, by moving the agenda for strengthening CHPS, with intentions to scale-up home-based detection, management and care seeking program (including prevention and first-aid management of diarrheal disease and malaria). However, the shortage of community health nurses needs to be addressed with some urgency to scale up this program. Some of the CHPS curative care interventions covering NHIS beneficiaries will be reimbursed, however, preventive and promotion care programs will need a more sustainable financing.

200. ***Ghana faces a dual burden on nutrition status among children under-5 years.*** On one hand, 28% (2008) of children under-5 years are stunted, and 9% are wasted, and on the other hand 5% (2008) of children under-5 years are obese. Stunting is observed among children above 18 months, while wasting is observed most among children under-1 years. Obesity is higher among children from wealthier families and among those living in urban areas.

201. ***Anemia continues to be a problem among children.*** 78% of children (6 to 59-months) had some level of anemia (2008), however, 56% of these children received Vitamin A supplements, while 28% received iron supplements. Anemia continues to be a problem among women. 60% of women with children under-5 had received vitamin A supplements following postpartum. 87% of women took iron supplements during pregnancy, while 35% took de-worming medications (2008).

202. ***Several interventions have been introduced to address the concerns of malnutrition among children, but the result is not that promising.*** The health sector supported several programs, including child welfare clinics to target the high-risk children, the safe motherhood program to promote

breastfeeding, de-worming and micronutrient deficiencies, the infant and young child feeding programs, and the school feeding programs supported under the ministry of education. Recently, a multi-sectoral strategy was developed to address malnutrition under the Ghana Poverty Reduction Strategy (2007-2011). Despite these several efforts, the results are not that promising, as malnutrition and anemia is highly prevalent among children. Further effort is required to address this slow progress, and to particularly look into programmatic challenges, including cross-sectoral collaboration and coordination, the promotion of long-term sustainable interventions, such as, behavioral change communication, and scaling up community-based interventions. The growing concern on obesity will need to be addressed in the early stages and to promote prevention and promotion activities.

How does Ghana fair in maternal health outcomes?

203. ***The focus on maternal health has been delayed and therefore the consequences are dire.*** Ghana's MMR is high, a consequence of low institutional delivery (57%, 2008), low medically assisted delivery (59%, 2008), and low postnatal care (67% within 48 hours of delivery, 2008), and poor quality of care. Among the primary cause of maternal death are hemorrhage (17%, 2010) and severe pre-eclampsia/eclampsia (16%, 2010). Twenty nine percent (2010) of MMR is expected to be a result of indirect causes, such as malaria, severe anemia, and others (EmONC study, 2011). Eleven percent of MMR is expected to be a result of unsafe induced abortion (2007)⁴⁰.

204. ***Anemia continues to be a problem among women.*** Fifty nine percent of women (15-49 years) had some level of anemia. Anemia relates to premature delivery and low birth weights. Women in Ghana are not at high risk for under-nutrition, which indicates they generally have a balanced diet, although 30% of them are classified as overweight (2008). This is a growing concern, given the other health problems associated with obesity, such as diabetes, hypertension and others. These too can relate to pregnancy related complications. Obesity leads to several diseases, which can be easily controlled when diet and physical activity is better managed, these are cost-effective interventions. In developed countries, one finds obesity related illnesses can take up to 5-10% of total health spending.

205. ***At least 7% of pregnancies result in abortions in Ghana (2007).*** Although abortion is more likely among urban and educated women, rather than rural and poor women, it can have dire consequences for the underserved, who do not have access to appropriate care or have limited information. A higher incidence of abortion is seen among urban women (21 per 1,000 women), and among women between 20-24 years (34 per 1,000 women). The proportion abortions attended to by physicians has increased over time (57% in Ghana in 2007 versus 19% in Southern Ghana in 1997-98)⁴¹; however, among those facing difficulty after abortion, at least 41% did not seek treatment.

206. ***Caesarean section is considered to be low.*** WHO recommends that countries offering appropriate care would have about 5 to 15% caesarean section among child deliveries. However, although Ghana on average reports 4%, it shows wide disparity across regions and the Northern regions report the lowest incidence of less than 2% (EmONC Study, 2011).

⁴⁰ Using data from the 2007 Ghana Maternal Health Survey (GMHS). Abortion in Ghana. In Brief, 2010 Series, No. 2, Guttmacher Institute.

⁴¹ Data is not comparable between 1997-98 and 2007. Survey questionnaire and methods of obtaining and verifying data might be different between the 2007 Ghana survey and the 1997-98 study in Southern Ghana.

Table 25: Causes of Maternal Deaths, 2007

Causes of Maternal Deaths	Percentage
Hemorrhage	24
Other infectious	15
Other non-infectious	13
Other misc.	13
Abortion, medical attempted	11
Hypertensive disorders	9
Sepsis	7
Obstructed Labour	4
Spontaneous Abortion	4

Source: Maternal Health Survey 2007

207. ***Reproductive health interventions are inching forward.*** In 1985, abortions were legalized, with a liberalized approach, and are permissible under specific circumstances, such as, rape or health risk to mother or child. In 1995, the safe motherhood initiative was launched, and in 2003 a comprehensive reproductive health policy was developed including within it, screening for reproductive related cancers, prevention and management of safe abortions. However, little effort has been made to include the prevention of chronic illnesses under the primary health care program. The focus has remained, to date, on MDG related matters. In 2007, a consortium of international and domestic organizations launched a program to reduce maternal morbidity and mortality, and particularly due to unsafe abortion. In 2008, the strategy to improve skilled delivery led to the offer of free maternal health care under the NHIS, and which included among it treatment of cervical and breast cancer. However, the program was unable to address the need for inclusion of family planning commodities, to address the high unmet needs. This until now remains a problem to be addressed with some urgency. Also, abortion services that could be expensive (GHC 3 to 30 or US\$9-90 in 2000, for a hospital or private clinic abortion)⁴² are not covered by NHIS, but post-abortion services are covered. This puts women from poorer households at higher risk, as they must therefore resort to traditional/non-modern methods. Ghana has recently developed a maternal MDG acceleration strategy, and is seeking for financing to accelerate efforts. The strategy focuses on institutional delivery, reducing unmet needs, and improving access to emergency obstetric and neonatal care (EMONC) facilities, by improving access to skilled HWs, and equipment.

208. ***The contraceptive prevalence rate (24%, 2008) has remained stagnant and unmet needs especially for birth spacing are high (overall 35%, for birth spacing 23%, 2008).*** Unmet needs have not changed much since 2003, and are above SSA averages (22%, 2008)⁴³. 17% of currently married women are using contraceptives, and of which injectables (6%) are followed by the birth control pill (5%) among modern methods, while use of male condoms represents only 2%. Knowledge on “at least one contraceptive” is universal in Ghana; however, there is disparity in use: few poor (12%) and few married women from northern region (6%) used contraceptives. There is a need to better understand reasons for the low demand and use. Not many HWs (23%, 2008) were found to discuss family planning options with their clients; although, the field-work is seen to be pro-poor: fieldworkers in the northern regions were more likely to discuss family planning with their clients than other regions, and more poor are likely to hear about family planning options from field workers than non-poor (the latter sub-group mostly reside in urban areas, and do not benefit from field workers, as they primarily use health facilities)

⁴² Guttmacher Institute, 2010

⁴³ Singh S. et. Al., Abortion Worldwide: A decade of uneven progress. New York: Guttmacher Institute, 2009.

209. ***Family planning needs special attention.*** The family planning program in Ghana is part of the reproductive health program. Health workers are trained to counsel women on family planning, and public facilities are expected to keep a stock of family planning commodities. Even though a public good, the public sector does not provide free family planning commodities, although, it may be subsidized at public facilities, while family planning services (but not commodities) are provided at no additional costs to NHIS beneficiaries. The public sector does not allocate sufficient resources to procure sufficient family planning commodities. Contraceptives are mostly procured through external financing or through out-of-pocket. Not only is there a shortage in the market, but women also face a financial constraint. The private sector has responded to unmet needs and today covers about 51% of the market share (2008). However, private sector prices are not regulated, and the public sector has not addressed price issues. Recent discussions have been initiated between NHIS and the MOH to look at the feasibility for the inclusion of family planning commodities, in addition to services, within their benefit package. The NHIS benefit package needs further review and a push for inclusion of more cost-effective interventions to be supported under it. Policies have not addressed demand creation: less couples were exposed to contraceptive messages in 2008 as compared to 2003. Given the rising high-risk behavior among the youth, there is need to offer a more comprehensive program addressing risk behaviors, offer choices, and promote use of condoms in particular.

How does Ghana fair in communicable disease control?

210. ***Cost-effective interventions are promoted to control some key communicable diseases:*** malaria, TB and HIV-AIDS. However, efforts have to be stepped up, as a high proportion of morbidity and mortality continue to be from communicable diseases, which are preventable in a very cost-effective manner.

211. ***Malaria is among the leading causes of morbidity in Ghana with an incidence of 47 per 100,000 population (2008).*** About 38% of Ghana's population lives in malaria endemic areas, and both pregnant women and children are highly susceptible. A high incidence of malaria is reported among children under-5 years of age: and as many as 58% of hospital admission and 44% outpatient visits are for malaria treatment. Malaria continues to be one of the leading causes of morbidity and mortality in Ghana.

212. Malaria preventive activities were scaled up and have resulted in increased ownership of long-life insecticide treated nets (ITN) bed nets (4% in 2003 versus 43% in 2008). Malaria preventive programs are seen to be pro-poor: more rural (38%) and more lower-income (36%) groups have at least one ITN, and benefited from this program. However compliance is low, as 28% of children under-5, and 20% of pregnant women slept under ITN mosquito nets (2008). Overall, compliance of ITNs use has been a specific challenge, and various strategies for behavioral change are being experimented upon, such as the voucher scheme in 4 regions. The effectiveness of this intervention needs to be carefully assessed.

213. ***Malaria intervention programs are scaled up since mid-2000, but have faced huge challenges.*** In 1999, the Roll Back Malaria (RBM) initiative was adopted and the National Malaria Control Program (NMCP) was developed, with nation-wide implementation in 2005. As part of the Abuja Accord (2000). Ghana committed to promote multiple preventive activities, including ITNs, prevention of malaria in pregnancy, improved diagnostics and case management, and environmental management. In 2004, Ghana adopted the intermittent preventive treatment for pregnant women (IPTp) policy employing three doses of sulfadoxine-pyrimethamine (SP). In 2006, ITNs were scaled up with the assistance of DfID and UNICEF, and in 2009, Artemisinin-based combination therapies (ACT) were included to the EML, as first-line treatment for uncomplicated malaria. NHIS covers the cost of complicated malaria treatment drugs. A critical area of concern however is the sustainability of many of the preventive activities, such as the ITNs. Until date this is completely financed by the external partners (Global Fund, UNICEF, USAID and the Government of Japan), and no domestic financing is sought for its sustainability.

214. To distribute ITNs to women and children, the public sector uses community distribution networks and health facilities, such as antenatal clinics and immunization campaigns. Indoor residual spraying is conducted by the public sector and through partnership with the private sector. Both the public and private providers are engaged in providing intermittent preventive treatment for pregnant women (IPTp) to pregnant women at antenatal clinics, and ACT to children under-5 years, when they are diagnosed with fever. Access to malaria treatment drugs is wide, as it is available at the public sector as well as at the licensed private drug sellers. HWs are trained in home-based malaria case management and clinic-based malaria diagnosis, although the quality of malaria diagnosis needs to be improved at both health facility and at community levels.

215. ***TB prevalence has changed little over time, and there is a dire need to scale-up interventions.*** TB prevalence is reported at 329 per 100,000 population (2008). There has been little significant change in prevalence since over a decade (1996). TB cure rates have increased from 61% (2003) to 79% (2008), but regional variations are evident. TB detection rates, reported at 31% (2009), have been slower to achieve.⁴⁴ Knowledge on TB among adults is high, while stigmas are low: many adults (72% - 78%) knew that TB was spread through the air, but fewer adults (about 30%) reported that they would keep a family member's TB status a secret.⁴⁵

216. ***TB programs need to enhance prevention and control.*** In 1994, the National Tuberculosis Control Program (NTCP) was implemented, based on the WHO Directly Observed Treatment Short course (DOTS) strategy. The DOTS strategy is based on political commitment with increased and sustained financing, early diagnosis, standardized supervised treatment, uninterrupted drug supply, and monitoring and evaluation. Emphasis has also been placed on capacity strengthening of health personnel to improve the management and treatment of TB. In addition, the government in collaboration with WHO adopted the Stop TB Strategy with a target to reduce the burden of TB, and halve TB prevalence deaths by 2015. However, more strategic and community-based interventions may need to be proposed to scale up household use of TB services.

217. ***HIV-AIDS prevalence rates are among the lowest in the SSA region, and now require targeted intervention on the high-risk and vulnerable populations.*** HIV-AIDS prevalence is at 18 per 1,000 population, and has shown a steady decline in the past 5-years. The global prevalence rate is 8 per 1,000 population and the SSA regional average is 47 per 1,000 population (2008). Despite national trends, death caused by HIV/AIDS related conditions is among the top five nationwide among adults aged 15-49 years. In 2007, it is estimated that 21,000 deaths resulted from AIDS among adults and children.⁴⁶

218. ***There is critical need for geographical targeting.*** Although, the national HIV prevalence shows an overall declining trend from 2.2% (2003) to 1.71% (2008), geographical differentials exist. Urban prevalence (2.1%) is estimated to be higher than rural (1.5%). Regional variations exist: the Eastern Region (4.2%) reports 4 times higher rates than the Northern Region (1.1%). District variations are worse: Agormanya (8%) and Fanteakwa (4.6%) of the Eastern region are among the worst, followed by Korle Bu (3.8%) of Greater Accra, Sefwi Asafo (3.8%) of Western Region, and Amansie West (3.7%) and Kumasi (3.6%) of the Ashanti Region.

219. ***There is critical need to target by vulnerable groups.*** Overall, approximately 236,151 adults (58% female) and children are living with HIV. It is believed by experts that prevalence rates are much higher among female sex workers (30% to 50%), men having sex with men (25%), their clients and

⁴⁴ WHO Ghana Tuberculosis profile, 2009

⁴⁵ Ghana Demographic Health Survey (GDHS), 2008

⁴⁶ WHO Epidemiological Fact Sheet on HIV/AIDS in Ghana

partners. HIV prevalence among ANC clinic attendees (15-24) who use ANC, which is used as a marker for new cases, has remained stable at 1.9% (2005, 2008), but remains above the national average.

220. ***There is critical need for programmatic targeting.*** Population knowledge of where to go for a HIV test was generally modest (70-75%, 2008), however, population of the northern region and those among the lowest wealth quintile had the least information. Only 50% women received counseling during antenatal clinics, while women in the lowest wealth quintile (30%) and Northern regions (38%) received the least counseling. Only 8% of sexually active youth (15-24 years) were tested for HIV.

221. ***Even with a declining prevalence, many are still engaging in high-risk behaviors, and are not taking preventive actions.*** Although population awareness on HIV/AIDS is good, comprehensive knowledge is low, and risky practices are evident (GDHS, 2008). This suggests dire need to support behavioral change initiatives. Data also suggest that youth in particular need to be targeted, as use of contraceptives during intercourse is low and high-risk intercourse is growing. Further, activities to prevent mother to child transmission is low, and attention is required in that area as well. Stigma for those living with HIV/AIDS is high, and raises concerns for their care.

222. ***HIV/AIDS general interventions have been effective, but now need to target the vulnerable.*** Ghana Health Service together with the National AIDS Control Program (NACP) lead interventions of health related effects of AIDS in the sector while the Ghana AIDS Commission, established in 2000, coordinates the involvement of all public and private sector stakeholders in combating the epidemic.⁴⁷ Priority interventions include the prevention of new infections by promoting safe sex (Behaviour Change Communication [BCC]), condom use, Sexually transmitted disease (STDs) care and prevention, blood safety, and infection control. Another subset of activities focus on HIV/AIDS management (care for people living with AIDS (PLWHA)) and integration of Voluntary Counseling and Testing (VCT) and Pregnant Mother to Child Transmission (PMTCT) into service provision.⁴⁸

223. ***Strategies are in place, but implementation has been weak.*** As part of the two roll-outs of the HIV/AIDS Strategic Framework (2001-2005, 2006-2009), the following interventions were developed: (a) Intensify behavior change strategies, especially for high-risk groups; (b) Prevent mother-to-child transmission; (c) Promote safe sex practices; (d) Improve access to VCT, and integrated youth services; and (e) Promote strategies to reduce stigma and discrimination of PLWAs.

224. ***Substantial service and funding gaps exist in providing Pregnant Mother to Child Transmission (PMTCT) treatment.*** New guidelines introduced by the WHO on PMTCT recommend lifelong antiretroviral treatment for all pregnant women with serious or advanced disease or with a CD4 count at or below 350.⁴⁹ This revision of national targets for treatment to meet demands over the next two years creates significant service and funding gaps. In 2003, a Support Treatment and Anti Retroviral Therapy (START) program was initiated in three regions to provide anti-retroviral drugs complemented by VCT and community sensitization.⁵⁰ Scale up comprehensive care for PLWAs, including antiretroviral therapy for all who need it. Available statistics indicate that almost 90% of the cumulative AIDS cases are between the ages of 15-49 years in spite of the high rate of HIV/AIDs awareness among the populace (with about 98% of women and 99% men being aware of the disease) due to the intensification of prevention programs through civic education and support in the use of prevention mechanism HIV/AIDS.

⁴⁷ UN ECOSOC HIV/AIDS Programmes and Policies in Ghana (accessed 27 June 2011).

⁴⁸ UN ECOSOC HIV/AIDS Programme and Policies in Ghana (accessed 27 June 2011).

⁴⁹ WHO HIV & AIDS Information <http://www.aidsmap.com/New-WHO-guidelines-on-PMTCT-and-infant-feeding/page/1436978/> (accessed 28 June 2011)

⁵⁰ UN ECOSOC HIV/AIDS Programme and Policies in Ghana (accessed 27 June 2011).

225. *The need for ART among adults will continue to rise.* Forecasted results indicate that the number of HIV positive pregnant women receiving ARV therapy will increase by 10-times by 2013 resulting in a US\$ 10 million funding gap. Although new infections among the 15-49 age group appear relatively stable over the next 6 years, the need for ART among adults will continue to rise due to the incremental increases in the number of adults receiving ART over the same period. New HIV infections among children aged 0-14 years is also expected to gradually decline, however over this same period, demand for ART among this age group will increase by 12% (from 15,159 cases to 17,271 cases).

Box 9: Determinants of Reproductive Health and Sexual Behavior

What are the correlates of reproductive health and sexual behavior? An analysis was conducted for seven indicators for both men and women (GDHS, 2008): whether the person has never had sex, whether a condom was used for the first intercourse as well as for the last intercourse, whether the person has been tested for HIV, whether the person thinks that children aged 12 to 14 should be taught to wait for sex until marriage, whether the person intends to postpone intercourse until marriage in case he/she is not married, and whether the person has had extra-relationship (thus including extra-marital) sex. Education turned out to have an important impact on most behaviors. A higher education increases the probability not to have had sex (or said differently, controlling for age, increases the probability that intercourse takes place at a later stage in life) for both men and women. It increases the probability of having used condoms in the first intercourse for women, albeit not for men. It increases the likelihood of having been tested for HIV for both women and men, as well as the likelihood to state that children aged 12 to 14 should be taught to wait for sex until marriage again for both sexes, and the likelihood to postpone intercourse until marriage for men. Finally, it increases the likelihood of extra-marital relationships for both men and women, but it does not have an effect controlling for other variables on the probability of using a condom in extra-marital intercourse.

Socio-economic standing also matters. For women in the top quintile of wealth, the probability to not have had sex (controlling for age) is higher, as is the intention to postpone intercourse until marriage. There is evidence that for women, higher wealth is associated with a higher likelihood to state that children aged 12 to 14 should be taught to wait for sex until marriage, although the impact is not very large in percentage terms. Finally, for both women and men, the likelihood of having been tested for HIV/AIDS is higher in the top quintiles. But for other reproductive health behaviors, the impact on wealth is either not statistically significant, or when it is, there are no clear patterns that emerge according to the overall distribution of wealth. Access to and use of modern media such as radio and television have also some (limited) impacts on reproductive health behaviors, with those limited effects seen more for women than men. Finally there are also limited regional effects at work. As one example of such effects, living in urban areas increases the likelihood to not have had sex (controlling for age) for men, and it increases the likelihood of having used a condom for the first intercourse among women.

Age matters as well. As expected, young women and men below the age of 20 are less likely to have had sex. Among those aged 15 to 24, the likelihood of having used a condom for the first intercourse is higher for those above twenty, suggesting a lack of information for younger cohorts. The likelihood of having been tested for HIV is higher above the age of twenty, and tends to be reduced again for those above 40 years of age. For women, the likelihood of having extra-relationship sex is lower as age increases, while it is at first higher for men, up to the 25-29 age bracket, after which the probability decreases again. Marital status has some impact as well. For example, for both men and women, being married increases the likelihood that the individual has been tested for HIV. For men, being married also reduces the likelihood of using a condom in extra-marital relationships, and the same is observed if the person has more than one marriage.

Source: Olivier, Nguyen and Wodon (2011)

4.2. Effectiveness

226. The Boxes below provide some supply-side and demand-side interventions to facilitate reduction in communicable and non-communicable diseases.

Box 10: How can Ghana facilitate the reduction in communicable disease (CD)?

Supply side interventions:

Improve diagnostic skills

Include basic needs for diagnostics, laboratories, drugs

Improve surveillance system and M&E

Demand side interventions:

NHIS offers performance-based provider payment mechanisms, that add within it preventive and cost-effective interventions for CD;

AND either of the following:

(a) MOH retains financing for CDC, but NHIS incentivizes providers to deliver services horizontally, that is preventive over curative care;

OR

(b) MOH pools financing with NHIS for some CDC interventions to be supported under the NHIS benefits package. E.g. FP commodities are added within NHIS benefits package, and such other services/goods that face market failures

Conditional cash transfers are offered to consumers to incentivize the use of preventive over curative care, and to avail certain services (e.g. for maternal and child care) early on.

Box 11: How can Ghana facilitate the reduction in non-communicable diseases (NCD)?

Supply-side interventions:

- Offer within PHC package of services promotion, prevention and screening of NCD; appropriate staff skills, equipment, labs and drugs
- Add SIN tax for smoking, drinking, etc
- Work inter-sectorally on food fortification, etc

Demand side interventions:

- NHIS offers within its benefit package, prevention and screening of NCDs, and maintenance drugs, and specific chronic and non-chronic diseases to be identified based on country burden of disease profile;
- NHIS offers a performance-based provider payment mechanisms, that adds within it preventive and cost-effective interventions for NCD;
- Offer behavioral change programs to reduce smoking, poor nutrition, lifestyle changes

4.3. EFFICIENCY

227. 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.

228. *The Ghana health system can improve its allocative efficiency.* Some mechanisms used by the Ghana health system could be reviewed to see if further allocative efficiency can be gained. For example,

health service financing is fragmented between MOH and NHIS: MOH finances preventive services, and NHIS finances curative services. Given that preventive services are provided under budget with little results orientation, and that the curative services are provided under NHIS, with incentive to increase services, as payments are ex-post, there is tendency among providers to focus on NHIS package of services. Unmet needs are high, while fertility rates are also high. Both affect the lower income groups disproportionately. If the financing of preventive and curative care were pooled (or at least better coordinated), and/or preventive services promoted with appropriate incentives, this would lead to welfare gains.

229. ***Ghana could promote cost-effective interventions and preventive over curative care.*** Few public facilities have initiated extended programs on preventions and control of NCDs. NCD treatment is expensive, and there is need now to introduce NCD prevention and control programs, so that later the country does not face high expenditures from NCD treatment. Ghana has included within the NHIS benefits package treatment of several (but not all) NCDs, but financing NCD control and prevention and promotion has not been fully addressed.

230. Although the NHIS benefits package covers over 90% of Ghana's burden of disease, the coverage is mainly for more expensive curative services. 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 planning⁵¹, and possibly even non-medical prevention such as ITN bednets for malaria could generate future savings in reduced need for more expensive services and medications.⁵² Furthermore, payment systems such as capitation 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.

231. ***NHIS provider payment systems could also enhance efficiency.*** The NHIS pays hospitals and outpatient 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. Moreover DRGs are still a fee for service system, although the more aggregated service bundles reduce providers' abilities to game the system. Nevertheless, 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.

232. There is currently a pilot being planned in the 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.

233. ***Medicine use and prices could also lead to efficiency gain.*** Pharmaceuticals account for some 40% of NHIS spending and NHIS accounts for about 44% of total pharmaceutical spending.⁵³ There are major issues concerning not just prices and spending, but quality, prescribing patterns, fraud and abuse and most critically patient health outcomes.

⁵¹ An 'essential public good' depriving NHIS of potential savings of US\$11 million in 2011 and US\$17 million by 2017). See USAID Family Planning Study.

⁵² Smith & Fairbank, 2008

⁵³ See A. Seiter, CSR Pharmaceutical background paper

234. ***Delay in NHIS claims processing could be reduced.*** Delay in claims processing has become a major source of inefficiency within the NHIS. The NHIS can 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.

235. ***Overall, hospitals were running more efficient, but improvements at the lower level facilities could help significantly increase efficiency.*** Hospital bed occupancy rates (BORs) in Ghana grew between 2005 (44%) and 2009 (60%). The use of hospitals in the districts and regions has been variable across regions, given the limited capacity of skilled HWs and recurrent budget constraints. Health facility utilization has grown over time, especially after the introduction of the NHIS (2005). The district and regional hospitals however had lower BORs averaging at about 60% (ranging between 48% and 94%), while teaching hospitals benefitted from a higher BOR at about 81%. The average length of stay (ALOS) at hospitals overall has reduced between 2005 (4.5 days) and 2009 (3.8 days), and this is expected to also be a result of the NHIA introduction, given the standards stipulated on ALOS by various treatment types. Teaching hospitals reported the highest ALOS (6.7 days). This is expected to give a high admission of patients with tertiary level health conditions. Efficiency gains can be realized by improving investments at the lower level facilities.

Box 12: Efficiency in Health Service Utilization

Outpatient utilization of health services have increased, from 0.4 (1997) to 0.8 (2008) patients per year. Larger jumps in utilization are noted in 2007 and 2008.

Hospital admission rate has also been increasing over the years from 30 (1997) to 40 (2007) hospital admissions per 1,000 population. Those regions that seem to be reporting above national average admissions are: Central, Eastern, Upper East and Upper West.

Statistics from the Government hospitals (Ghana Health Services) suggest that hospital bed occupancy rate (BOR) has been increasing, although, not a significant rise. This is seen in most regions, except for Upper East, which reported a decline in utilization. However, the behaviors in Accra-based hospitals are significant. Since 2007, Accra-based hospitals have seen a significant increase in BOR, reaching over 80% by 2008. Although, this is a good sign on efficiency grounds, the sudden increases reported in the years after the introduction of the fee-for-service, suggests a need for investigation into the profile of the hospital admissions.

Average length of hospital stay (ALOS), another efficiency measure, on average has declined from 5.0 days (2003) to 4.5 days (2008). This was the phenomena in all government owned regional hospitals, except for in Accra, where ALOS increased from 7.5 days (2003) to 9.1 days (2008). Further investigation is required on what possible reasons may be encouraging longer stays at hospitals. Is it a phenomena of the payment mechanisms?

Source: Infrastructure Background Report, Dubbledam, R, et, al., 2011

236. ***Overall, public resources could be more efficiently spent.*** Many direct sector investments as well as spending through the NHIS do not provide good value for money. The population is unable to access health care closer to them. Patients are by-passing clinics in favor of hospitals, as clinics may not have HWs and other amenities. More outpatient care consultations are at hospitals than at clinics, and this too is costly to the system, as per capita costs at hospitals are higher, and inappropriate use congests the system and diverts resources from patients needing hospital care. Patients are by-passing district

hospitals in favor of regional hospitals, as districts may not have specialist HWs or services. Per capita spending at district hospitals is therefore higher than for example at regional hospitals, as the former are under-utilized. This also results in fewer patients able to access health care at a timely manner, as travel time and costs can be considerable. Further, financing of prevention and curative care are fragmented, one controlled under MOH and the other under NHIS. Given payment mechanisms, one being input-based through budgets, and the other being ex-post fee for service, results in a system with few incentives to promote preventive over curative services.

4.4. FINANCIAL PROTECION AND EQUITY IN FINANCING

Box 13: The three dimensions of universal coverage

The three dimensions (policy choices) of universal coverage are considered: (a) population covered, (b) services covered, and (c) financial protection.

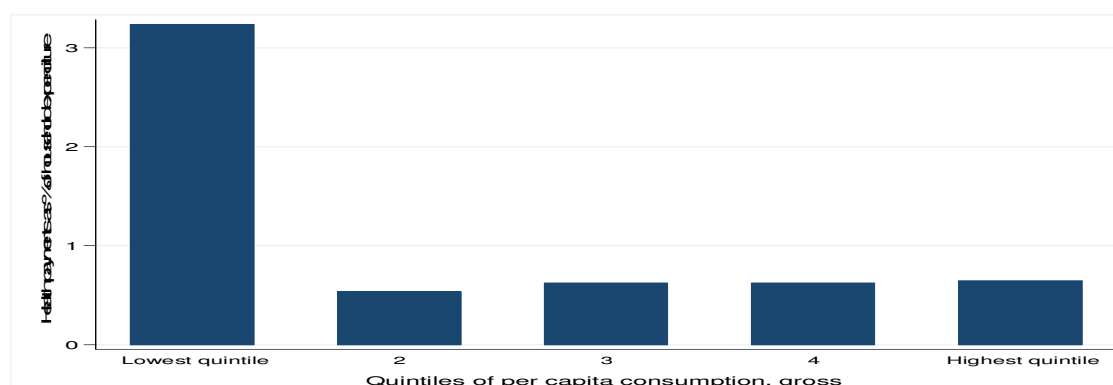
- Does Ghana have universal health coverage – are most population assured effective access to some basic benefits package? *NHIS coverage was about 37% of the population (2008).*
- Does Ghana offer protection/coverage against most illnesses -- Which services are covered under universal coverage and how much does it cost (scope)? *Ghana is expected to cover at least 95% of all curative care and treatment drugs for those who are covered under NHIS. This package costs Ghana 20% of the total health expenditures.*
- What financial protection is ensured and what do people have to pay OOP (depth)? *Some 40% of total health expenditures is paid out-of-pocket (OOP).*

4.4.1. Financial Protection

237. *The population is not financially protected against illness costs.* WHO has recommended a benchmark for a country to be considered as financially protected against illness costs. According to this benchmark, a country should not exceed an OOP expenditure of 15 to 20% of total health expenditures. Ghana falls short of this, as its recent data shows that OOP expenditures remain at 40% of total health expenditures. Ghana's share, while not that unusual for a country which has just transitioned from LIC to LMIC status, is double this amount.

238. *However, household burden of health spending appears to be relatively low in Ghana,* as it ranges between 1 to 5%; however, households in the poorest quintile allocate a higher share of expenditures on health care compared to the rich.

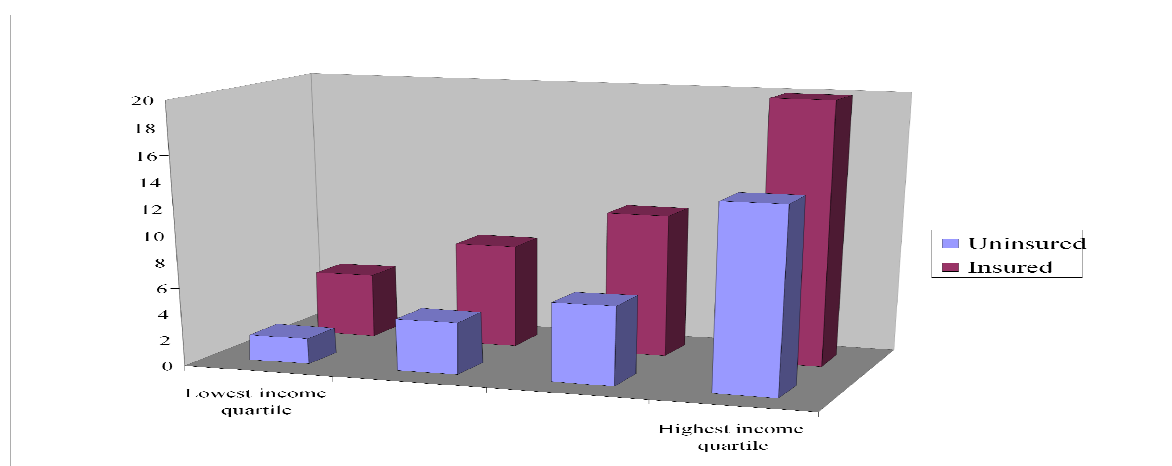
Figure 49: Health Payment Shares by quintile analysis



Source: GLSS 2005/06 – The year of this study was earlier, and therefore does not capture impact of NHIS on household spending.

239. ***OOP expenditures on drugs can be significant for households.*** Many Ghanaian do not yet have an NHIS insurance card and therefore still has to pay cash for all medicines⁵⁴. Some wealthier individuals have a form of private or employer-based insurance that includes a drug benefit, but the majority of those outside the NHIS can be considered poor. It is not easy to estimate the aggregated spending for drugs for this part of the population. Also it is not clear how much NHIS beneficiaries still pay OOP for medicines. Reports from treatment facilities suggest that many patients have already tried some form of self-medication before they make the effort to go to a clinic or hospital and seek professional treatment. Ghanaian traditional medicine involves many herbs and spiritual healing methods that are tried by healers and herbalists in villages or are applied by relatives in a first attempt to cure symptoms of a disease. Chemical sellers and pharmacists are in practice free to advise patients and sell prescription drugs over the counter. Patients may rely on advice from these professionals or from family members or simply buy the same drug that they had used during an earlier episode⁵⁵.

Figure 50: Modeling per capita spending on medicines



Source: Seiter, 2011; simulated using GLSS2005/2006

⁵⁴ Those who are not registered under a financial protection scheme must therefore pay out-of-pocket for curative care services and drugs from both the public and the private sectors.

⁵⁵ A Knowledge, Attitude, Beliefs and Practices (KABP) Study on Low Generic Prescribing in Ghana; MOH Report December 2007 (GNPD)

240. ***Households facing catastrophic spending have little financial protection.*** Catastrophic spending occurs when OOP spending – expressed as a percentage of total household spending – exceeds a threshold, say 25%. We find a relatively higher percentage of lower income quintiles reporting a threshold of 25% or above. A higher proportion of households facing catastrophic spending are less likely to smooth consumption (non-medical spending had to decline in order to cover the increasing medical spending) and belong to lower income households. This indicates they do not have sufficient and equitable financial protection. Incurring catastrophic spending has a higher likelihood of pushing the near poor into poverty.

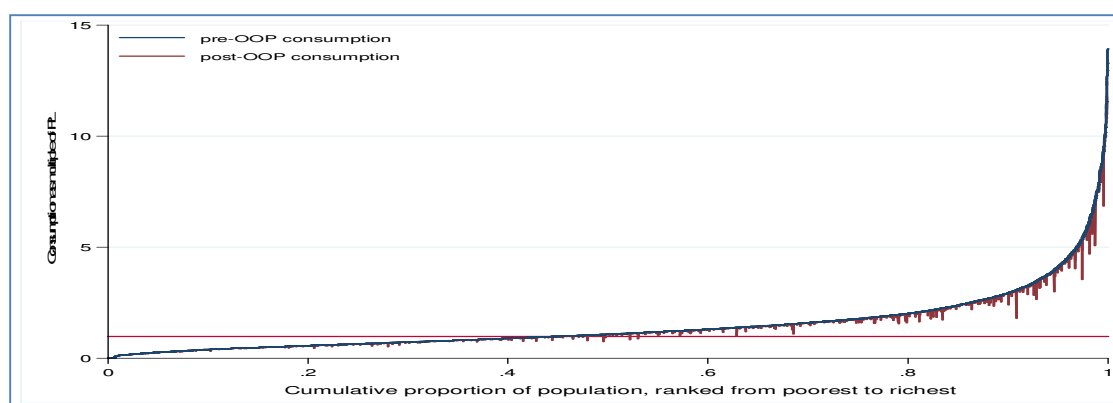
241. ***The poor are not financially protected against catastrophic illness costs.*** In 2005/2006, the poor were more likely to underutilize health services, and more likely to have poorer health outcomes relative to the non-poor. They were also more likely to have a higher household spending on health, and less likely to smooth consumption when they incurred catastrophic spending relative to the non-poor. The poor were therefore worse off than the non-poor, and were at greater risk of not having financial protection.

Table 26: Catastrophic expenditure headcounts, by various thresholds

	Household health spending (OOP) as a percentage of household total spending				
	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: GLSS, 2005-06

Figure 51: Per capita expenditures, gross and net of health spending



Source: GLSS, 2005-06

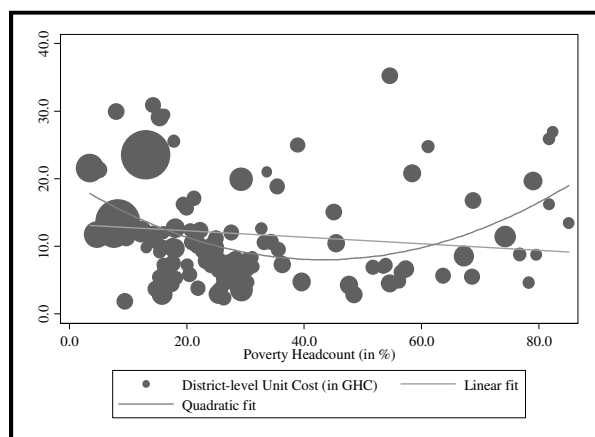
242. ***The benefit incidence of public health funding in Ghana is found to be regressive overall,*** in large part because hospitals and clinics still benefit households that are better off more than the poor. This is especially the case for hospital care. Concerning government and faith-inspired providers, overall the results suggest that public spending for faith-inspired providers do not necessarily reach the poor much more significantly than public spending for public providers. However, data does show that the poor are more likely to use public facilities if they are insured, and therefore this suggest a more progressive use of public funds under insurance, as the enrollment of the indigents improves under NHIS.

Box 14: Benefit Incidence of Public Health Facilities and MBPs

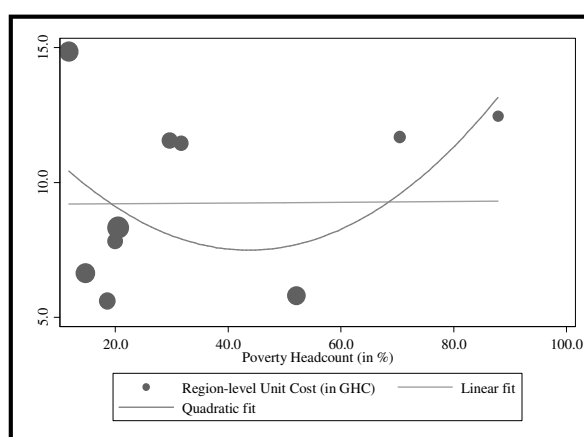
Household survey and administrative data can be used to conduct a benefit incidence analysis of public spending for health. Differences in unit costs between districts are derived from the budgets allocated to each district (using administrative budget data from 2007) and the number of visits to the districts computed in both the 2003 CWIQ and 2005-06 GLSS5 surveys. With both surveys, the unit costs vary widely across districts and regions, with higher unit costs observed in both the wealthiest (Greater Accra) and the poorest regions (Upper West). It could be that in Accra and a number of other comparatively better off regions, higher unit costs reflect the fact that health personnel attending to patients tends to be more qualified (most of the doctors tend to be concentrated in the wealthier parts of the country). By contrast, in poorer areas and due to affordability issues, the demand for care is lower (which translates for example in lower occupation rates for hospitals), which may also result in higher unit costs. This then would also imply lower unit costs for districts and regions that tend to be in the middle of the welfare distribution. This “U” shape relationship between the incidence of poverty and average unit costs for visits to health facilities across districts or regions is clearly visible in the following Figure. The size of the dots in the scatter plots are proportional to the size of the population in the various districts or regions in each figure, but not comparable for district as opposed to regional scatter plots; both linear and quadratic best fit lines using regressions weighted by population are provided.

Relationship between unit costs and poverty levels at the regional level

CWIQ survey (districts)



GLSS5 survey (regions)



Source: Authors' estimation using CWIQ 2003, GLSS5 2005-2006, and administrative data.

Combining data on unit costs with information on usage of facilities from household surveys, **public health funding is found to be regressive overall, in large part because hospitals and clinics still benefit more households that are better off than the poor, and this is especially the case for hospital care.** As to the comparison of government or faith-inspired providers, overall the results suggest that public spending for faith-inspired providers do not necessarily reach the poor much more significantly than public spending for public providers.

Source: Coulombe and Wodon (2011)

4.4.2. Equity in delivery of health care

Who is using health services?

243. ***Access to health care has improved, while regional differentials are evident.*** There is an overall increase in health service utilization, as the contact rate for outpatient care has increased, and the hospital BOR has gone up. While 43% of the ill reported to have sought medical care in 1999, 60% of the ill reported to have sought medical care in 2005/06 (GLSS 4 and GLSS 5). Annual contacts per capita increased from 3.19 to 3.33 during this period. Overall outpatient contacts at public facilities have grown at the national level from 0.49 (1995) to 0.81 (2009). Regional differentials are evident: the Upper East (1.37) and Brong Ahafo (1.15) report the highest outpatient rates as compared to Greater Accra (0.51), and the Northern region (0.53) that report the lowest outpatient rates (2009).⁵⁶

244. Public hospital utilization data show that inpatient admissions grew by almost 40% between 2005 and 2009. About 1 million admissions into public hospitals were reported in 2009, having grown from about 700,000 (admission remained stagnant between 2002 and 2005). The largest proportion of admissions was reported in the Ashanti region hospitals. The real spurt in growth in admissions is seen post 2006. Overall, about 19 million outpatient visits were reported in 2009, a growth of almost 60% from 2005.

Where are they going for health services?

245. ***The population uses both public and private facilities.*** The use of private health facilities are growing for outpatient. However, regional and income differentials are evident in type of services used.

246. ***The private sector is an important contributor in provision of health care.*** Among the ill, at least 50% sought care from the private sector, and more from for-profit. Urban-rural and income differentials are evident in use: the poor generally availed services at public facilities, while the rich went equally to public and to private facilities. NHIS registered beneficiaries tend to use both public and private facilities: however, significant proportion (57%) of those who are not registered under NHIS tend to use private health facilities, and a large proportion use private non-religious/for profit.

Table 27: Health Facility for Outpatient use by type (public, private for-profit, and private not-for-profit), 1999-2005/06

	Sought care from		
	Public	Private for-profit	Private not for-profit
GLSS 4 (1999)	48%	47%	5%
GLSS 5 (2005-06)	45%	49%	6%

Source: GLSS5 (2005/06), IFC analysis 2010.

Note: data is from the early years of NHIA's creation.

247. ***The poor tend to use public facilities.*** While 71% of women among the highest wealth quintile gave birth at public facilities, only 22% of those in the lowest wealth quintile gave birth at public facilities. Most institutional deliveries took place at district hospitals (55%) or at health centers (23%) (EmONC, 2011). Among children with Acute Respiratory Infection (ARI), 48% did not go to a health

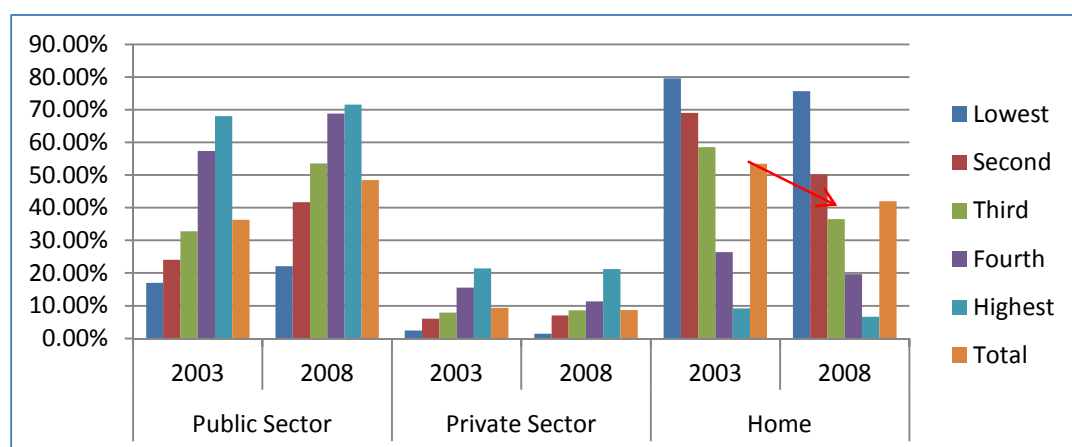
⁵⁶

Source: GHS/CHIMS. 2010. Does not include private sector.

facility, 38% went to a public facility and 14% went to a private facility. More women of the lowest wealth quintile are going to providers in 2008 as compared to 2003, however, income differentials are evident: while 77% of pregnant women in the lowest wealth quintile were seen by a skilled health worker (9% seen by doctor), 98% of those in the highest wealth quintile were seen by a skilled health worker (50% seen by a doctor) (2008). The poor registered at NHIS are more likely to go to public over private facilities.

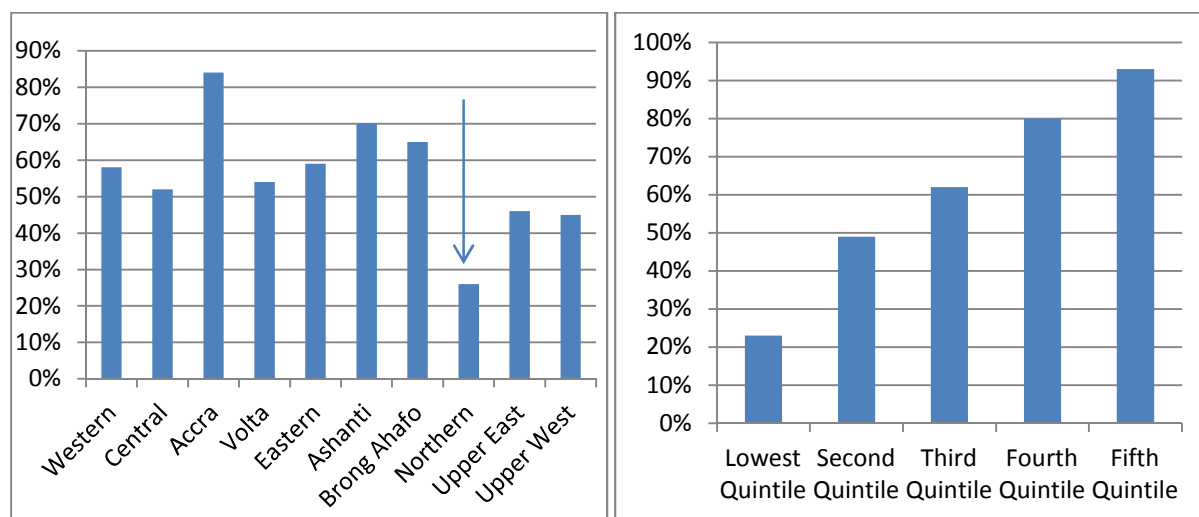
248. **Regional differentials in use are evident.** While most regions reported at least 50% women with institutional delivery, the Northern region reported only 26% (2008). While at the national level 58% of women visited a doctor/nurse/midwife for postnatal care, the Northern region reported the lowest use at 32% (2008).

Figure 52: Place of delivery by type and over time (2003-2008) in percent



Source: GDHS, 2003 and 2008

Figure 53: Regional and income differences in institutional delivery, 2008



Source: GDHS, 2008

249. *A significant proportion of the population bypasses primary health care clinics and use hospitals for primary health care.* Nationally, hospitals account for 32% of all consultations, followed by clinics at 28% of consultations (GLSS2005/2006)⁵⁷. Many patients went to district hospitals over sub-district clinics, for primary health care services. Patients are by-passing the PHC facilities. Clinics might be referring patients to hospitals, for more complex cases; moreover, although the gate-keeping concept has been introduced, it is not fully operational. Patients might also be self-referring and this suggests, that patients prefer going to district hospitals, given their perception of the quality of care at clinics. Many patients by-pass the clinics in favor of hospitals, given shortage of physicians and other skilled health workers, and given frequent shortages in drugs.

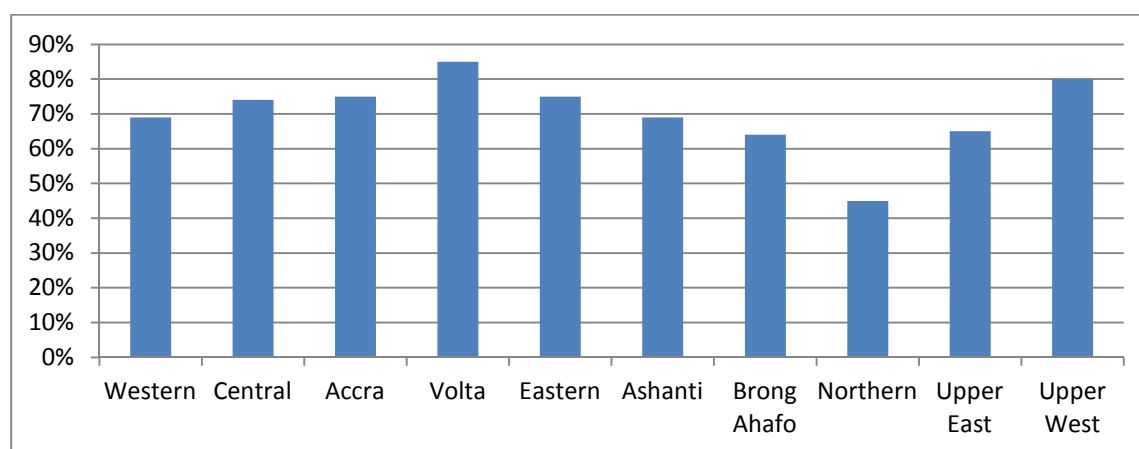
4.5. Quality of Health Services

What is the quality of health services received?

250. *Quality of care is variable across services.* About 6% children under-5 years were reported to have ARI symptoms, but only 24% of them sought care using antibiotics (2008). Among children under-5 years with diarrhea, 40% sought care at a health facility, of which 35% were prescribed antibiotics to treat diarrhea, which is not a recommended treatment. About 44% of eligible women received the recommended dosage of malaria preventive medicine, and 24% of children under-5 years, received anti-malaria drugs on the same or next day when running fever. The situation was worse among the lowest wealth quintile and among the northern region.

251. *Income and regional disparities exist in access to quality care.* Although antenatal care (ANC) use is high, it is not clear from the data whether quality of care received by pregnant women during ANC is comprehensive and assists mostly those in high-risk status: 60% of pregnant women received all basic prenatal care services. While many pregnant women had their weight and blood pressure measured, and urine and blood sample tested, only 68% of pregnant women were advised on the signs of pregnancy complications during their ANC and only 56% had 2 doses of tetanus toxoid (2008). Although the poor are receiving better care over time, however, they do not receive the same quality care as the non-poor, and the Northern region facilities seemed to offer the worst quality of care.

Figure 54: Percent pregnant women informed of signs of pregnancy complications during Antenatal care, 2008

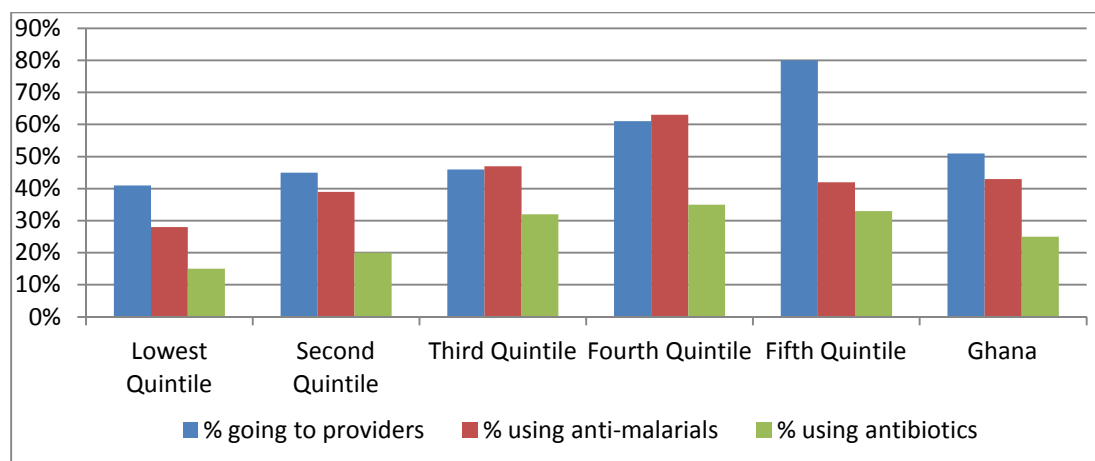


Source: GDHS, 2008

⁵⁷ Olivier and Wodon (2011)

252. ***The poor are not receiving as good a quality of care as the non-poor.*** About 20% of children under-5 years were reported to have had fever, and of those, 51% sought care, and of those 43% received anti-malaria tablets, and 25% received antibiotics (2008). Of those who sought care, fewer children among the lowest wealth quintile (30%) received anti-malarial medicine, as compared to the highest wealth quintile (42%) (2008).

Figure 55: Income differences in under-five children with fever and seeking care, 2008



Source: GDHS, 2008

253. Access to services for CDs and particularly for NCDs is not so easy, as the latter is mostly offered at a few tertiary hospitals, and which are only in a few urban cities. Quality of services for CDs remains variable, and for NCDs need to be assessed in some future study. It will be important for Ghana to understand the quality of services offered at clinics and hospitals (in particular), in order to build a better NCD delivery system early on.

Why are people not using health services?

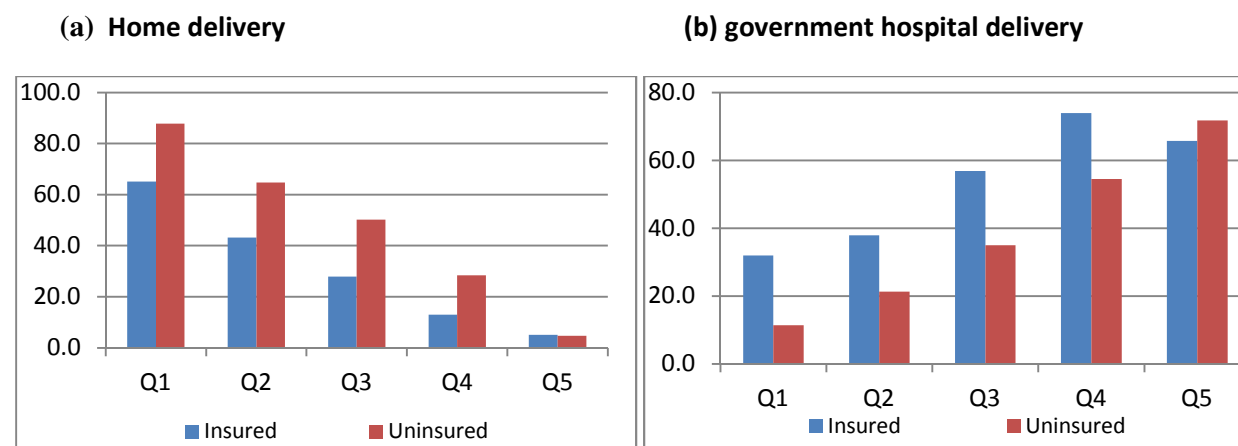
254. ***Use of services is determined by culture, knowledge, geographical and financial access and perception of quality of care.*** Cultural barriers are deterrents and household knowledge of use of appropriate care is limited. Among children under-5 years with diarrhea, only 67% had some treatment (oral rehydration solutions [ORS] or increased fluids), and most mothers decreased food intake among children during their diarrhea episode. Among pregnant women, although ANC use is high (95%, 2008), attendance at ANC is not as frequent as recommended by WHO: 78% of pregnant women had 4+ ANC during their pregnancy, but only 55% had ANC during their first trimester (2008). Deliveries at home remain common among the poor, and suggest cultural, geographical and financial barriers.

255. ***A substantial proportion (74%) of women had barriers to accessing health care.*** Financial constraints were seen as a significant barrier, followed by long distances of travel and lack of transport. Although, overtime, the situation for the poor has improved, it has not improved as much as for the higher income groups. Evidence shows that those with insurance are better off: those among the poor who are insured (or have financial protection) are able to access more care in comparison to those among the same quintile who do not have insurance coverage.

256. ***NHIS coverage and the region of residence have positive effects on use of public facilities.*** A regression analysis of the factors that influence a woman's choice of provider for a delivery, among those who choose to deliver outside the home, reveals two significant factors that influence the choice to use a

public provider: having NHIS coverage and the region of residence. NHIS coverage increases by almost 6 percentage points the probability that a woman who delivers outside the home will select a public provider relative to a private provider. Among women who chose to deliver outside the home, their decision to select a public provider varied among regions.

Figure 56: Pregnant women deliveries by quintile analysis and by insured/uninsured status



Source: GDHS, 2008

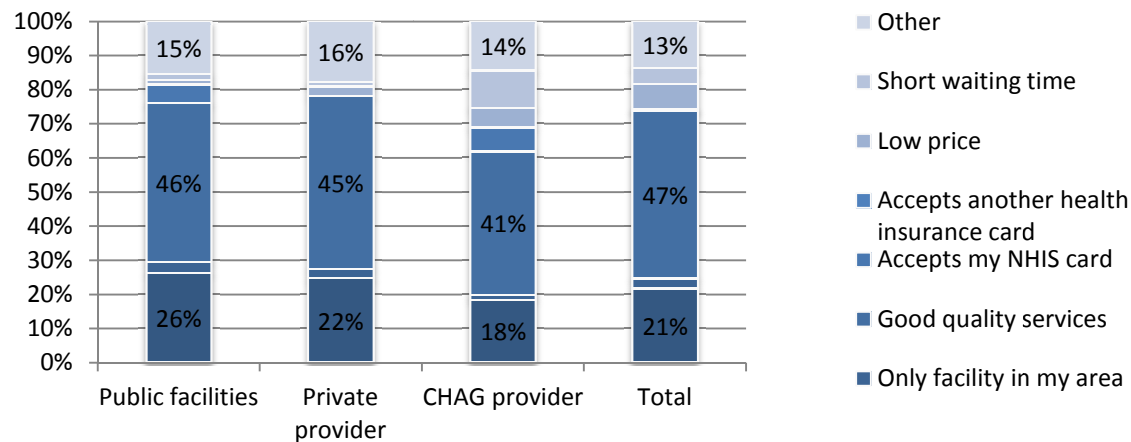
What is the perception of quality health services?

257. ***Quality of care is determined by access to skilled workers and positive attitude of HWs, availability of drugs and other services, and price.*** The primary reason for not using health services was patient's perception of low quality of care: lack of drugs and absence of HWs, followed by absence of female HWs (GDHS, 2008).

258. ***HW access is an important reason to go to a facility.*** Among those who went to public facilities, most went because of easy access to personnel. Among those who went to missions, personnel, followed by laboratory tests were key determinants. For those who went to private for-profit, access to drugs was the largest attraction, possibly because many private providers are chemical sellers. Patients use private providers because of good quality of service (availability of medicines and laboratories) and closer access. In addition they go, if private providers are also NHIS accredited services and drugs are available to them at no additional costs.

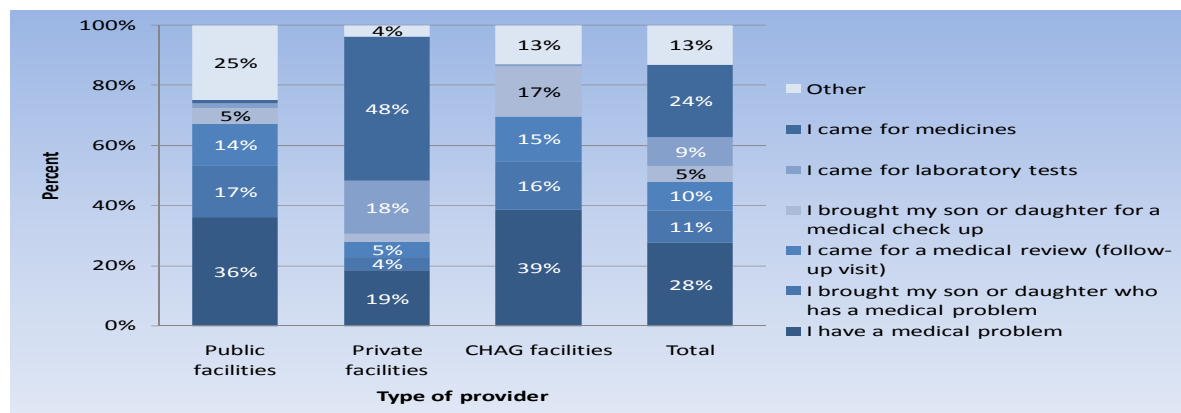
259. ***Better quality service is the prime reason for selecting any kind of provider.*** Low price is a distinguishing perceived feature of public providers, although actual spending by users on public providers does not seem to be relatively lower. Shorter waiting time is a distinguishing feature of private providers. More courteous service is a distinguishing feature of CHAG providers.

Figure 57: Main Reason for Provider Choice (percent)



Source: CSR Background Paper on Private Sector Assessment in Health, 2010.

Figure 58: Medicines and lab tests draw consumers to private providers



Source: Exit poll survey (2008)

Box 15: Satisfaction with Health Care Providers

How satisfied are patients with the services provided by various types of providers? Qualitative data from fieldwork carried out among staff and patients in six mission-based providers (MBP) in 2010 suggests relatively high satisfaction with the services received, albeit with some caveats. Patients using MBPs were satisfied with the quality of staffs, hygiene in the facilities, and cost, but less so with the availability of proper accommodation, technical equipment, and medicines. The situation was more difficult for clinics and hospitals not yet accredited with the NHIS.

Quality of care was the main reason for choosing facilities. Among patients in Christian clinics/hospitals, two thirds said that quality was the main reason for choosing the clinic/hospital, and close to 60% mentioned that workers are skilled, knowledgeable, competent, dedicated, and patient; in short they appreciated the quality of the staff. For patients in Islamic clinics/hospitals, the most common answer was the quality of workers followed by the quality of service, with location coming third. Respect for patients came in strongly as a key reason for choosing MBPs.

“Here we are treated with respect. They listen to us well and understand all of our problems. They take their time to talk to us in a polite way. You don't regret spending your money at this hospital. Even if they don't have all the equipment, the way they handle makes me feel comfortable” (Female Muslim patient, Islamic clinic); *“I have heard that they are a top quality hospital and they are very serious with their work and they treat patients with care and respect”* (Male Christian patient, Christian hospital).

To understand the different reasons for choosing providers, patients were asked to share the advantages that they see in using MBPs. In Christian facilities a third of patients cited “quality of workers” as the main advantage of the facilities, followed by “assistance for the poor” (25 percent of respondents) and “quality of service” (19 percent). Among patients in Islamic facilities, the most common answer was “worker’s skills and quality” (44 percent) followed by “location” (31 percent). Two other reasons were mentioned: “Assistance for the poor/orphans” and “quality of service” by 12.5 percent of respondents. The availability of assistance for the poor, while not a leading criterion for the choice of provider, was also mentioned by facility staff.

“What is the target population of this clinic? Elders come, youth come, children come, and pregnant women come... any kind of category. The majority of people who come to this clinic are Moslem, but we have non-Moslem too. They are Christian or believe traditional religion. Also we have both poor and somehow middle income group. Majority of the patients are actually poor. That is one of main reason of establishment of this clinic. People are facing financial problems, unemployment and deprivation. Their monthly income is low. We try as much as possible to subsidize our services.”

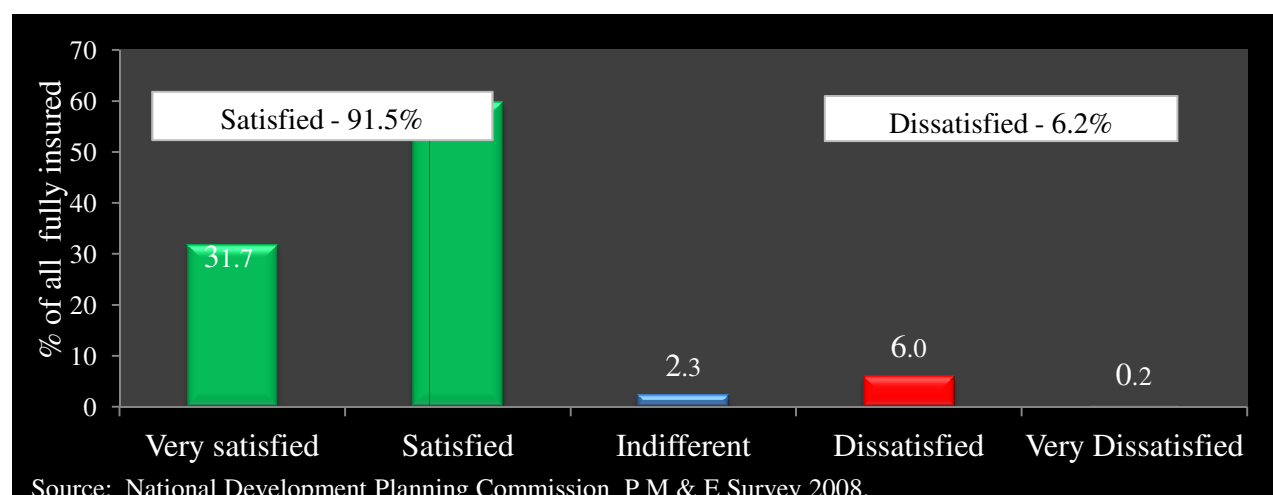
Source: Shojo, Tsimpo and Wodon (2011).

260. ***The NHIS registered population is generally satisfied with the NHIS program.*** Once registered under NHIS, they receive free care at any NHIS accredited health facility. There is no additional medically related cost incurred, as there are no deductibles, no copayments, and no limits.

261. ***Price of care is variable by type of facility visited and by type of patients.*** Those not insured are expected to pay OOP. Mission-based providers (MBPs) are seen to charge patients on average 12% more than public facilities. In addition, households who belong to upper quintiles of well-being are more likely to pay higher prices in both private non-religious facilities and MBPs than in public facilities⁵⁸. However, cross-subsidization is likely to be applied by MBPs in favor of patients coming from poorer households.

⁵⁸ Tsimpo and Wodon, 2011

Figure 59: Household perception of quality of health services after introduction of NHIS, 2008



Box 16: Private Cost for Households of Alternative Care Providers

Price of care is variable by type of facilities visited and by type of patients visiting. Mission-based providers (MBPs) cost on average 12% more than public facilities. In addition, households who belong to upper quintiles of well-being are more likely to pay higher costs in both private non-religious facilities and MBPs than in public facilities. However, cross-subsidization is applied by MBPs, especially for patients coming from poorer households.

One explanation could be that both MBPs and private non-religious facilities practice ‘health care Robin Hood’ by subsidizing the poor and charging more for the better off. An alternative explanation might be that the cost of care in private non-religious and MBPs is higher than in public facilities, and this then poses a problem for some patients in poverty who cannot and do not pay for the full cost of treatment or drugs recommended to them. Perhaps the most likely interpretation is that the second explanation would apply to the poor seeking care in private facilities, while the more altruistic cross-subsidization hypothesis would apply to MBPs. This hybrid explanation according to different types of providers best reflects the difficult trade-offs encountered by poor families in paying for care as well as the efforts that are made by MBPs to make their services available to the poor. While the regression results do not help to support any of the various explanations, they reveal differentiated costs between providers.

A few other interesting results in the regressions are worth mentioning. First, the probability of paying and the cost of care when paying are both higher when the household head is female. This may reflect a higher willingness to incur such costs among women. The probability of paying and the cost of care when paying are by contrast lower when the patient is an infant, which is to be expected given that on average many illnesses affecting infants tend to be less costly to treat than those affecting older children or adults (even if some of the illnesses affecting infants can of course be very serious). The probability of paying and the cost of care are higher in the better off parts of the country, as expected. Being registered with the NHIS reduces the probability of paying out-of-pocket costs, as is the case when care is paid for by an employer or insurance more generally. When patients see a doctor (as opposed to other health care professionals), the probability of paying costs is higher, as is the amount paid. Being affected by an illness as opposed to an injury reduces the cost of care, but not the probability of paying out-of-pocket costs. Using a hospital does not increase the costs versus a clinic, but this is after controlling for some of the costs typically associated with a hospital, such as consulting a doctor.

Source: Tsimo and Wodon (2011).

CHAPTER V: KEY REFORM ISSUES AND OPTIONS

5.1. Reform Issues

262. Ghana has progressed much in health systems reform, and at this stage of its development, and taking the agenda for reform to the next level, the Government of Ghana could embark on some reform options building on the strengths of its system while addressing its weaknesses in the area of (a) decentralization and governance, (b) health service delivery, and (c) health financing.

5.1.1. Health Systems supported Policy Development

263. *The health sector has undertaken some important policy decisions.* Some of these policy changes have been critical and have helped create a positive environment in the health sector. A summary of some key past reform efforts is presented below.

264. *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 NHIS.

265. *Ghana has earmarked public finances for health.* In 2003, Ghana decided to tackle the problem of limited and fluctuating resources for non-salary recurrent budgets, which had led to low performing health services. The NHIS was introduced in 2005 offering a program with demand-side financing, and certain resources under VAT and levies were earmarked for NHIF to be used for health service operations. At the same time, the government permitted use of public monies for financing the private sector. Both public and private health facilities were accredited to join under the NHIS program. Further, the program also enhanced accountability by separating payer and provider functions.

266. *Ghana has made significant progress in decentralization, and several building blocks for a devolved health system has been put in place.* These include a comprehensive legal framework for government decentralization, the establishment of district-level political and administrative structures including the DA and the deconcentrated GHS offices, a number of useful information systems and management tools (including planning and budgeting systems, reporting and information systems, performance measurement, and financial transfer mechanisms to local governments), and the implementation of participation mechanisms including facility boards. However, policies could be realigned to complete the process for implementation, as it has been hampered by issues related to regulatory inconsistencies, resistance to change, weak managerial capacity, centralized authority over key resources, weak capacity at central and regional level to monitor and support implementation, and weak economic base of many districts.

267. *Ghana has made efforts to make drugs more affordable and available.* The MOH five-year program (2007-2011) emphasized the need to improve access to medicines, improve supply management systems, increase quality assurance and promote rational use of drugs. The MOH has an essential medicines list, and the NHIS offers a medicine list which includes those from MOH and some others. The Central Medical Store currently procure drugs and vaccines, which are financed by external funding, and which primarily addresses vaccines, family planning commodities, HIV-AIDS treatment drugs, ITN bednets, and other essential drugs. Given the challenges faced in the efficient running of the central

medical stores, as the supply chains were not effective, the government allowed health facilities to procure their own drugs including from the non-public sector. Although, the results led to improved access, but given weak pricing regulations, it also led to increased prices. NHIS has come up with drug pricing which uses a median market rate approach. This should help to regulate pricing in the market. Also, quality of drugs procured is variable, as the private sector procures their own drugs, and the FDA is unable to ensure quality assurances at decentralized levels. Additional effort is required to regulate the quality of drugs in the market.

268. ***Ghana has given autonomy to health facilities in retention and in use of IGF.*** Ghana agreed to give public health facilities autonomy in the use of IGF, and, certain parameters were put in place for guidance. This autonomy has provided public health facilities easy access to procure drugs, to conduct minor repairs of health facilities, and such, but not to use for larger capital investments, personnel remuneration and travel. However, there is need for a more comprehensive understanding on IGF retention and use, and a need for regular reporting and monitoring, which at this stage is not consistent.

269. ***Ghana has formed public-private partnership in the provision of health services to scale up services.*** Given the skewed distribution of GHS facilities, in favor of urban and peri-urban areas, MOH signed an agreement with CHAG (a mission) to form a PPP. CHAG was charged the role of providing services in rural and remote areas, where GHS was not operating. CHAG financed capital investment for their hospitals and clinics and provided administrative staff and standards, while the MOH provided clinical staff. OOP and NHIS provided reimbursements for operations costs for the NHIS benefit package offered to NHIS beneficiaries. There is some concern that the faith-inspired providers (e.g. CHAG) could be better targeted, as they do not necessarily reach the poor significantly better than public providers.

270. ***Ghana has introduced gate-keeping at primary health care to reduce unnecessary use of health services.*** Ghana introduced gate-keeping at the clinic level, however, there is no comprehensive policy or guidelines that create appropriate standards and incentives. There is little assessment of achievements and challenges of the gate-keeping program; however, anecdotal evidence shows that patients continue to bypass the clinics in favor of hospitals. The gate-keeping system is not strongly enforced, given the variability of quality of health services. Several clinics do not have physicians or other appropriate skilled HWs, and several may not have appropriate equipment. Recently, Ghana has planned to experiment on building primary health care networks (under the capitation pilot), to ensure provision of basic primary health care services at clinic levels. Also, pricing standards are being considered to incentivize providers to provide primary services at primary levels. The pilot has to be closely monitored as it has an opportunity for lessons learnt and scaling up.

271. ***Ghana has made strategic efforts to improve the acute problems faced in HRH.*** To overcome physician shortages, Ghana initially formed a pack with Cuba to bring in 200 Cuban doctors to work in the remote and rural areas, and to help train Ghana doctors. Ghana produces one of the highest numbers of physicians in the region, but when it started losing its trained HRH personnel to foreign markets, Ghana took its first steps in 2004 to improve the salary scale within the country. Although the health sector salaries in the public sector are much better than those offered by the other public sector agencies, disparities exist. Physician salaries are close to or above regional averages, while nurses and midwives salaries are one-third of physician salaries, or below regional averages. Despite salary increases and available positions, the public sector is unable to fill its vacant physician posts. Large rural urban differentials exist, with very few physicians serving rural areas, and most physicians concentrated in the urban areas and in greater Accra and the Ashanti region. The recent challenges faced by Ghana, include: limited production of physicians and of other cadres (e.g. community health nurses, and health assistants), need for improved quality of production of HWs and for retraining of the currently employed. Ghana is responding by preparing a new updated strategy to consider more egalitarian distribution of medical and paramedical schools across the country in order to attract more regional and rural students. Ghana is also

looking at forming partnerships with the private sector to offer medical and paramedical training. This may help alleviate the problem of high enrollment in certain schools and may lead to better quality of certain cadres of HWs. Given the large disparity in distribution, rural incentive schemes and performance management contracts are being considered.

5.1.2. Current Health Policy Reform: Strengths and Weaknesses

Governance, Management and Organization

Strengths

- The Government has in place the administrative and legal requirements for its decentralized governance structure.
- The Public Financial Management system is adequate, clear, and meets most international requirements.
- 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).
- Successive Common Management Arrangements provide an effective framework for relating to partners.
- The NHIS legislation and implementing provisions strategically set out an elaborate governance and administrative framework for the provision of health insurance.
- There are relatively high levels of consumer satisfaction, especially from those who are NHIS beneficiaries.

Weaknesses

- 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/expenditure because most of their resources are actually executed centrally or earmarked from the center to specific programs or initiatives.
- Other issues include: HW 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 inefficiencies such as high drug prices and quality issues.

Delivery System

Strengths

- 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.
- Outpatient care utilization has increased significantly.
- Overall hospital use trends (for most categories) are positive with bed occupancy rates increasing from 45% to 60% at the local levels.
- 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 EML and good availability of drugs.

Weaknesses

- 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 HWs to regions with high poverty levels.
- There are few incentives to ensure performance of HWs.
- Hospital bed occupancy rates are 60%, and there is considerable inter-regional variation in occupancy, beds, ALOS, 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, and 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.

Financing

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.
- Ghana's NHIS relies on a diversified set of funding sources, resulting in the stability and sustainability of health financing.

- Ghana's approach pragmatically builds on the existing system of DMHIS in terms of transitioning toward a uniform national system.
- According to NHIS, membership has steadily increased from 1.4 million in 2005 to 14.4 million in 2009 (62 percent of the population), a 9 fold increase, while outpatient visits have increased 23-fold, inpatient service use 29-fold, and expenditures by 40-fold.

Weaknesses

- With current expenditure patterns, the NHIS is not financially viable and is projected to be insolvent by 2013.
- Revenues for the NHIS do not match the actuarially-based costs of providing services.
- The basic benefits package is heavily biased toward curative care, coordination with MOH vertical programs is poor, and coverage of 95% of the burden of disease 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 of the premium exempt members could afford to contribute.
- The stringent definition of indigent excludes some poor and near poor.
- Lack of a modern HMIS in the health sector results in inadequate data for decision making, inefficient claims management, incomplete information on enrollees and providers, limited quality assurance, and inefficient overall health systems management.

5.2. Reform Options

272. This section presents a number of reform options to address the challenges, and thus strengthen and accelerate effective health system reforms. Many of these issues and reform options have already been the focus of Government policy planning and implementation efforts, some are new, and others have not been effectively implemented.

5.2.1. Decentralization and Governance

273. Based on the performance, potential options to reform Ghana's health system are suggested. These reform options suggests that health policy in Ghana could focus on the following:

Decentralization

274. ***Coordination mechanism.*** The discussion and definition of a decentralization policy framework for the health sector would have to mobilize all stakeholders, both for strengthening technically the final proposal that will emerge, and building consensus and support around this proposal. Such an endeavor will require strong and committed leadership from the part of the overseeing institution in the health sector, the MOH. A Coordinating Committee jointly led by MOH and Ministry of Local Government and

Rural Development (MLGRD) could be established to coordinate the formulation and implementation of decentralization in the health sector.

275. ***Policy framework.*** A health system decentralization framework is greatly needed, and would further clarify and detail the responsibilities and functions of each government level and agency. The definition of particular functions to be decentralized could take into account factors such as: economies of scale (especially in procurement of drugs and other strategic supplies and services) and the highly technical nature of some functions and services. The design of a strong policy framework could thus encompass a detailed technical discussion of functions and responsibilities that would be decentralized to the local (or regional) level, and that which would remain centralized.

276. ***Human resources management.*** Revising and defining regulations and policies regarding human resource management in a decentralized system would help reduce duplications and fragmentation, and formulating a clearer regulatory framework. This framework homogenizes processes and provides minimal standards, without limiting local governments' autonomy to manage staff. It should necessarily include provisions for transferring staff from the central to local level, and a structure of incentives to encourage staff to transfer. The conflict between devolution and a central Local Government Service should also be resolved as soon as possible, in favor of staff devolution if sufficient capacity can be built at the district level.

277. ***Capacity strengthening at district level.*** As part of the discussion of capacity and autonomy of local government's health authorities at all levels need to discuss and define what degree and form of managerial autonomy will be given to what types of health facilities. GHS has over the years deconcentrated some responsibilities to facilities, but not in a homogeneous way, and – as shown in the rapid assessment – activities actually performed at the facility level vary significantly across facilities of similar type and size. The role and capacity, and thus the structure, of sub-district entities and communities, also need to be clarified. Finally, increasing autonomy at the facility level also requires that the bottlenecks to real autonomy be addressed appropriately.

278. The planning and implementation of decentralization would greatly benefit from a systematic assessment and mapping of the DHA's and DA's capacity and conditions for taking responsibility for specific functions to be devolved. Several aspects are to be considered in strengthening local government capacity. Once effectively devolved, the different responsibilities will be carried out in different places by different groups of staff. It is thus necessary to break down the general capacity assessment at the local level and clearly identify the different types of capacity that will be needed within the local government and define where exactly they could be invested. Some responsibilities will be carried out at the facility level, others (yet to be transferred) by the local health offices, and others at the DA and its management committee and staff.

279. ***Financing framework for decentralization.*** A clearer financing framework for local government on health would be a great contribution to decentralization implementation; this framework could seek to streamline the multiple existing flows and funds and take advantage of the District Financing Fund to consolidate these flows. As a first step, it would be important to estimate financial needs (expenditures) to upgrade local governments' capacity, and to meet the devolved responsibilities. Secondly, the framework would define financing sources and flows for decentralized levels, including the incentives structure needed to promote effective implementation and attract staff to more remote areas. As part of this framework, the current policy and formula for budget allocation across regions and districts could be revised, so as to emphasize the objective of equitable redistribution of funding that is part of the decentralization process. Opportunities for testing and implementing performance-based financing schemes could be considered, as international experience has shown that such schemes can provide a proper incentive structure for improving performance.

280. ***Integrated planning and budgeting.*** As most assessments and policy documents have pointed out, the current “composite budget” initiative has not yet taken root. Though, it is a critical step in moving toward full devolution, it needs to be strengthened in the short term. This could be done by the development of practical guidelines for effective joint planning and budgeting in health at the district level; this means revising existing guidelines for the “composite budget” and actual practices, in order to promote effective participation and involvement of the DA in the discussion and preparation of the district health plans and budget.

281. ***Monitoring and evaluation.*** In order to better promote and support the decentralization process, and monitor and evaluate the decentralization process and its impact, the capacity of central and regional levels for M&E would have to be strengthened – in terms of human resources, systems and instruments. This activity could take advantage of several important initiatives regarding M&E and performance assessment that have been adopted in recent years, and adapt them to a decentralized system. The key objective here is to enable these systems to produce reliable information at the district level.

282. ***Legal framework.*** As a result and consolidation of these efforts, the financing and functions of decentralization policy frameworks would be consolidated into one legal framework for health system decentralization; this legal framework could be prepared once policy documents have defined all main dimensions and aspects of decentralization, to avoid contradictions and regulatory revisions.

Private Sector

283. ***The Private Health Sector Policy.*** The MOH developed a private sector policy in 2003. It has already taken steps in 2011 to review and revise the 2003 Private Sector Policy with involvement of all stakeholders in order to establish an implementation framework, to identify and establish specific roles and responsibilities for the public and private sectors, and to set priorities among the actions and a realistic timetable for their accomplishment. However, the MOH Private Sector Unit is new and will need strengthening to serve the ministry’s and other stakeholders’ needs. In that perspective, the MOH should consider raising the unit’s visibility and provide it with more highly qualified staff and a larger budget to enable it to perform all the necessary work to achieve the agenda of the revised Private Sector Policy. The MOH could also seek out required technical support and other relevant resources from the Ministry of Finance and learn how to create and implement PPP. Finally, the MOH should establish a public-private engagement committee with equal representation of the public and private sectors to facilitate dialogue among stakeholders. This engagement committee should have oversight over the review, revision, and implementation of the Private Sector Policy. Collaboration is essential among public and private stakeholders in overseeing the private sector’s role in health.

284. ***Regulatory capacities, licensing and accreditation processes.*** The country offers a system of licensing of health providers, and with the introduction of NHIS, the accreditation of health facilities. To improve coordination and collaboration between the regulatory bodies and NHIS accreditation, it is recommended to review and to strengthen the role of licensing and accreditation boards and to strengthen coordination among stakeholders on how quality will be monitored and encouraged. The licensing and accreditation processes could be reviewed and expedited with a special focus on rural facilities and staffing norms. In addition, the legal framework for laboratory services could be finalized. Finally, it is necessary to review and harmonize the legal framework for regulatory bodies and review the mandate of the regulatory bodies to level the playing field between public and private actors and eliminate nonprofessional providers.

285. ***Joint collaborative arrangements between various stakeholders.*** The NHIS already affects private sector development by putting the power to buy privately delivered services directly in the hands of the people enrolled in and covered by the insurance. However, the NHIS faces some immediate

challenges. The NHIA, private providers, the GHS, and health sector regulatory bodies will always have to collaborate in various ways to solve these common problems. The collaboration should include the establishment of a joint task force (NHIS, GHS, professional associations, MBP) to address immediate and acute issues of the NHIS, including fraud, delays in reimbursement and slow accreditation. The NHIA should move as quickly as possible to implement a centralized claims management system to speed up and help reduce fraud in reimbursements. There is a need to carry out periodic (annual or every two years) peer reviews of NHIS tariffs and instruments to promote quality of care, such as the accreditation system. Finally, there is a need to establish and formalize a joint committee involving health sector regulatory bodies and the NHIA to oversee and analyze the systematic collection of reliable, monitoring and evaluation information to identify, understand, and act to resolve challenges to provider performance and quality of services.

286. ***Access to financing.*** Private providers rely heavily on OOP payments for operation costs, while they rely on their savings and credit for investment purposes. Larger private ventures, such as private hospitals, have an easier access to credit than smaller level health providers. Lack of access to credit/finances (48%) has been a significant constraint in the expansion of the private sector. Further, several private providers are unable to upgrade their facilities to meet NHIS accreditation standards. Those that are NHIS accredited are challenged by the delayed reimbursements of claims, and therefore, several are less likely to register under NHIS.

287. ***Access to credit and lack of business skills.*** Access to credit might be facilitated by setting up specific lending funds through banks that target health sector borrowers and provide training for bank loan officers in the specificities of health businesses. Partial guarantees of bank health lending portfolios could also be used to give the banks incentives to reduce collateral requirements for health loans. In addition, there is a need to create incentives for private investment in rural (and underserved urban) areas and identify innovative ways to provide government support to private actors. The advisory services of some national business consultants could be of great help to health actors. To encourage the start of such relationships, a competitive small grants program could be set up to provide matching funds for contracts between health businesses and consultants.

5.2.2. Health Service Delivery

288. Based on the performance, potential options to reform Ghana's health service delivery system are suggested for (i) infrastructure, (ii) human resources, and (iii) pharmaceuticals. These reform options suggests that health policy in Ghana could focus on the following:

Health infrastructure and other physical capital

289. ***Ghana has a process in place whereby five-year capital investment plans are prepared.*** Much of the capital investment is financed through external financing. There is however, little monitoring, and this has resulted in several incomplete hospitals, and several unrepaired or non-replaced vehicles and medical and information technology equipment. Primary health care has received little attention and investment targets are not met. Further, despite all the capital investment, recurrent budgets are not supported in parallel by the Government of Ghana. This results in inefficiency in expenditures, and ineffective outcomes. There is dire need to improve planning, coordination and transparency, and to have a stringent process in place for monitoring and accountability. Further, a regular budget for maintenance (costed out on depreciation) would be very beneficial.

290. ***However, Ghana needs to review its current standards on infrastructure, and develop some feasible standards, especially for hospitals/hospital beds.*** The challenge in planning is fueled by limited standards that guide the capital investment plans. Plans based on standards, and plans that are

comprehensive taking both public and non-public sectors into consideration could improve use of limited resources. The plans could be linked to the HSMTDP objectives, and goals, taking equity and efficiency principles into account. They could also be supported with procurement processes, and budgetary and financing commitments. In parallel, HW needs could be addressed.

291. ***Project Management for capital investment.*** The previous Capital Investment Plan discussions already pointed to some priority areas for development: (i) to improve project management and monitoring; (ii) to enhance capital investment planning and budgeting, based on country needs, (iii) to improve skills development in negotiating procurement of capital investment projects; and (iv) to address the critical issues of the backlog in capital investment. Given the huge backlog of new infrastructure and rehabilitation of current infrastructure, MOH could focus on the immediate way forward. The options that may be considered for expediting rehabilitation are: to contract out the rehabilitation to turnkey project promoters to take on 'backlog' property maintenance (and remedial renovation) or to work with local internal contractors; and to either continue to rely on external financing (which may not be sustainable) or to start planning budgetary allocations especially for primary care program. Further, perhaps ring fence recurrent budget for maintenance, instead of the ever-expanding commitment to counterpart funding for 'earmarked' capital projects.

292. ***Regulatory framework and Management of Equipment.*** The regulation of the medical equipment sub-sector could be initiated and strengthened: the regulation process could include technical evaluation of the medical devices in all health institutions; NHIS could benefit much from this process, as it could use the results of the regulation process for its accreditation activities. Measures to standardize equipment and to reduce the number of brands could be continued and intensified. The use of distributors and subsidiaries of (certified) Original Equipment Manufacturers for technical support could be encouraged, rather than the current practices of using agents and integrators.

293. ***The role of MOH/Biomedical Engineering Unit (BEU) could be redefined,*** as the MOH and its agencies could benefit from the BEU taking the role of oversight in the sector. This would also give BEU the mandate to effectively link up with the technical departments of GHS and teaching hospitals. For improved performance, the BEU could organize joint reviews of the equipment situation in the country with the GHS and Teaching hospital agencies. In its management of capital equipment programmes (from planning; acquisition; handing over), BEU could collaborate with the technical department of the recipient agencies, as well. As part of any new acquisition, in-house capacity to use and maintain equipment could be assessed as well as recurrent cost implications. International standards and practices could be established and implemented in all Teaching Hospitals. The equipment management system will need to be reviewed, and this review should include a nation-wide stocktaking of equipment, by level of care. The Emergency Obstetric and Neonatal Care Study (2010-2011) conducted an assessment of equipment for maternal and child health care services, however, little is done for equipment needs at hospital level. Equipment maintenance has been lacking, and the BEU could either train regional staff to carry out this role, or consider the feasibility of the private sector (contracted maintenance).

294. ***Transport Management Systems.*** The MOH has one of the most advanced systems of the transport management system (TMS) and many other SSA have learnt lessons from this. At this time the current TMS policy and guidelines are overdue for review, and the country could benefit from the production of a single TMS Policy document for MOH and its agencies. These could define the role of the MOH unit and the agency transport managers in vehicle procurement processes – especially to ensure that vehicles procured are in line with Ghana's future needs. There is a need to ensure continuing, regular and thorough review of the National Ambulance Service business plans to avoid undesirable consequences of its fleet expansion. Finally, there is a need to align capital investment in vehicles with adequate investments in their maintenance and further staff training, including for non-transport managers. In brief, MOH could ensure that transport management is always within the focus of its

reviews, assessments and target-setting, including a TMS measure at the national level in the MOH national report and annual national transport management conferences to better co-ordinate all relevant units and agencies within MOH.

295. **Information communication technology.** The MOH is currently leading the development of the HMIS/ICT needs assessment, and the review would be beneficial to help reform policies and strategies in the area of HMIS, electronic-health, mobile-health, information, communication, technology hardware, software and standards and skills development. Further work is required in this area.

Human Resources for Health

296. **Policy Refinement.** The MOH is in the process of refocusing its policy and developing a 5-year HRH plan. Their emphasis is on a more egalitarian distribution of HWs, and a better performing health workforce. In order to achieve these, MOH is looking at the following strategies: (a) recruiting students from and training students in other than larger cities, and (b) incentivizing HWs to work in other than larger cities. There is however no clear pre-service and in-service policy in hand, and to be sustainable, a refined HRH education policy would be very beneficial. Low production capacity for the most needed categories of HWs (including specialist profiles such as specialist doctors and specialist nurses) will need to be addressed. PPPs can also be a promising way to relax the fiscal constraint in the HRH education system. Some private sector initiatives are already visible in the country, and this could be further encouraged. Further, MOH is considering contributing to a better geographical distribution of HWs by strengthening (or creating) schools in deprived and rural areas (preferably in connection with regional and district-level hospitals to use them as training grounds). There is however need to strengthen the existing regulatory system, especially the accreditation process (so as to rule out poor quality teaching centers). It will be very important however that the accreditation standards are enforced with emphasis on quality over quantity. Also, sustainable resources will be required to train new teachers, replace ineffective equipment and rehabilitate buildings in schools.

297. **Incentives.** Given the rural-urban (and regional) differentials in HWs distribution, and given that several incentives have been tried, but not necessarily seen to be successful, it is key that incentives not be scaled up unless they are tried and tested and evaluated. This way, it will be clearer if incentives have not been successful, or administration or other challenges have impeded its success. The MOH will be pilot testing a results-based financing (RBF) modality, which could be an opportunity to test monetary and non-monetary incentives for working in deprived and rural areas. Career-based incentives could be considered for rural areas. There may be a possibility to reduce absenteeism and improve performance issues through offering of performance-based incentives.

298. **District Health Management Team.** Given the movement towards devolution, there is immediate need to build capacity in district health management. This team is critical to improving public health programs, epidemiological analysis, surveillance and helping build evidence based planning and needs-based assessments. The district team will also need to have a better sense of their management and technical support teams at regional and central levels to help them improve performances at the district and regional levels. Special attention is required to ensure strengthening capacity starting from those regions that currently lack skills and have poor health outcomes.

299. **Health Service Delivery Team.** There is need to bring a team concept to the health service delivery staff. Prior studies have indicated that competencies are low, and this suggests need for improved and supportive supervision and for hands on practical periodic training to ensure not only skills are built but that staff are using those skills to perform. Clinical practice guidelines are in place, but have not been used as tools that provide incentives to staff to use them and to perform better. Gate keeping, although

introduced, is not fully operational, as many primary health clinics do not have the appropriate HWs, and may have limited laboratory and equipments.

300. ***Skills enhancement for non-clinical staff.*** The health team requires both clinical and non-clinical staff to run health facilities. However, those recruited in management positions are not trained in management and/or finance. Most financial officers at health facilities and district management are not trained accountants or in financial management. There will be need to revisit this area of specialization. Further, IT is being introduced throughout the health delivery system, however, few trained personnel in IT are present to provide immediate attention to IT needs. The GHS is in the stage of developing a IT training strategy, and that would be beneficial to help develop a cadre of HWs on HMIS.

301. ***HWs database to improve monitoring.*** A database is needed to track staff movement, and to provide supportive supervision, as well as to identify skills upgrades. Also, there is need to have a better handle on HWs working in both public and non-public sectors.

Pharmaceuticals

302. ***Regulation and Enforcement.*** Ghana has made progress in setting up a modern regulatory system for the food and drugs sector. However, efforts are needed to strengthen the system in place and to address the key challenges. The main barriers to overcome the challenges are limited resources, and a lack of communication and coordination between the various players in Ghana. Some options for reform in the regulatory area are as follows: (i) enforcing good manufacturing practice and good distribution practice standards, (ii) increasing monitoring for sub-standard/counterfeit drugs, and (iii) improving physical conditions of the national drug quality control laboratory.

303. ***Industrial Policy.*** Although the domestic drug production is growing, it is fragmented and not yet at international standards to compete in international markets. For further growth to happen, it will require improved quality assurance standards, improved access to credit, and a more favorable tax environment. The current drug prices of Ghana manufactured drugs are significantly higher than the average international reference pricing. All this also requires regulatory standards and enforcement. Some options for reform are as follows: (i) drugs manufacturing, and (ii) wholesale and distribution.

304. ***Reimage the role of the MOH's central procurement unit for drugs, commodities and medical equipment into a Group Purchasing Organization (GPO) and technical services department.*** A review and refinement of the current organization structure of the central unit could be very beneficial in this regard: where is there comparative advantage and what role can they effectively play in a decentralized system. The central unit currently has an important role in the procurement of public health and specialized medical products and equipment and management of donor commodities. These role needs to continue in the foreseeable future. In addition, to its current functions, the central unit needs to reimage its role into providing a Group Purchasing Organization (GPO) type of service, negotiating and developing framework contracts on behalf of the Ghana health facilities. Second, (centrally negotiated contracts which could be tapped by facilities), it could provide quality oversight across the supply chain operations, and third, provide technical support in helping the MOH monitor the state of the medicines availability and affordability with the aim for improved pricing efficiency.

305. ***Procurement management.*** Pharmaceutical procurement happens at multiple-levels in Ghana with the decentralization of budgets and the inability of the central to meet the public sector's complete needs for medicine procurement. The central level however plays an essential role in several vertical treatment programs with high public health relevance, including vaccines, family planning commodities and bednets, etc. Otherwise, pharmaceutical procurement and supply in Ghana is fairly decentralized and largely privatized. Although, the central level can benefit from economies of scale, the local levels face a

challenge in this area. The decentralized level could however benefit from a centrally negotiated framework contract pooling the procurement of all the facilities, which is not common in the health sector in Ghana. In its new re-imaged role, the central level could serve the role of a Group Purchasing Organization, helping establish a framework contracts, tapping into the department's largest strength on procurement.. The implementation of a GPO model could also reduce possibilities of petty collusion and corruption of local purchasing.

306. **Supply chain management.** The current supply chain is fragmented resulting in significant non-value added steps⁵⁹, resulting in higher costs of delivering the commodities to the end-user. It takes almost 0.02 cents, almost 2% for order processing on every dollar of drugs or non-drug consumable). The central level currently has a limited role in the delivery of commodities downstream. The supply chain is currently managed by regional levels, and with each region responsible for accessing the centrally procured medicines and commodities. The regions spends a lot of time coordinating efforts to bring back to the regions the centrally procured drugs, and to further distribute the drugs to the health facilities. Currently, the regional and district medical stores use in-house transport and almost accounts 68% of the total transport costs of the supply chain system.⁶⁰ Often the regions do not have the capacity to negotiate an outsourced transport model, or cannot easily access efficient transport services. The central level could help the regions in this account by certifying and negotiating rates with transport companies, as currently done in India.

307. **Financing and Payment.** NHIS payment mechanisms have triggered some positive and some negative results on the situation of drugs in the country. While more drugs are available in the health facilities, or less stock-outs, drug prices have accelerated. As of recent assessment, medicine reimbursement costs were almost half of total claims reimbursed. Some established strategies are already in place, while other options could be considered: (i) to control fraud and abuse by providers, (ii) to control over-prescribing, and non-fraudulent irrational use of medicines, (iii) to educate patients so that they do not have expectations supporting over-prescribing behavior, (iv) to reduce the inefficiency in procurement that results in NHIA paying more for drugs than necessary, (v) to rationalize on the drugs on the EML and NHIA medicine list, and (vi) to maximize savings potential from AMFm.

308. **Medicine Prices.** Prices vary for the same drug around the country. The private sector tends to charge higher prices, but even among public sector price differentials are evident. The NHIA medicine list with a defined price list could subsequently result in reduced price variability. The government may consider appropriate policy options to make medicines more affordable and to reduce the high prices that currently prevail in the market. Options may include: (i) indirect price regulation through framework agreement, and (ii) increasing transparency of prices to empower buyers and consumers.

309. **Rational Use of Medicines.** Ghana faces “polypharmacy”, meaning the use of too many drugs, over use of injections, over use of antibiotics in the absence of adequate diagnosis, and increased tendency to prescribe drugs outside the EML, and branded generics. This has resulted in unnecessary spending on drugs, and which affects the public health system, as well as a high household health cost burden. It may also lead to non-compliance due to un-affordability, result in complications or lead to development of resistance, as antibiotics and other drugs could have adverse effects. The government may consider appropriate options to curb the overuse and inadequate use of drugs in the area of: (i) policy, (ii)

⁵⁹ Brumburgh and Raja: Ghana Process Mapping: First Step to Reengineering the Health Supply Chains of the Public Sector

⁶⁰ Huff-Rousselle, Maggie, and Sangeeta Raja. 2002. *Ghana: Estimating the Cost of Logistics in the Ministry of Health Supply System*. Arlington, Va.: Family Planning Logistics Management (FPLM)/John Snow, Inc., for the U.S. Agency for International Development.

education and training, (iii) patient copayment, and (iv) provider accountability and incentives for rational use.

5.2.3. Health Financing

310. 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 could focus on the following:

- At least maintaining the share allocated to the health sector of any new revenue, either from economic growth or improved revenue collection.
- Ensuring that the full amount of commitments from all sources is transferred to the NHIF in a timely manner.
- 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.
- 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.
- 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.
- Addressing the severe operational inefficiencies within the NHIS, particularly claims processing bottlenecks and the slow process of automation and information technology modernization.
- Addressing the inefficiencies in the health service delivery system, particularly high administrative costs and low health worker productivity.
- Examining 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.
- Protecting the NHIS reserve fund, and hence investment income, in the interim period before cost containment measures are fully in place. Some emergency funding may be necessary over the next two years.

5.3. Summary of Key Reform Options

311. Specific policies options are analyzed and discussed in the context of broader health systems' reforms. The following table summarizes these reform areas:

Table 28: Structural Reform Areas and Options

Structural Component	Options
Decentralization and Governance	
Decentralization	Policy & Legal Framework – Clearer policy framework required in health, on either moving the agenda to support devolution, and/or to stay with the current modality of decentralization through delegation and deconcentration. What is to be devolved and what not? – Develop one legal framework for health systems decentralization. – Strengthen capacity for monitoring and evaluation at central and regional levels, to provide oversight and support to district levels. Financing Framework – Clearer financing framework in health, with greater accountability: by adopting some of the mechanisms in place, such as DACF to consolidate the various funds and flows, integrated planning and budgeting processes, integrated M&E, and developing equalization/equity formula, and performance based financing mechanisms. – Local authorities could be given more control over budget/expenditure because most of their resources are actually executed centrally or earmarked from the center to specific programs or initiatives. HR Roles & Functions – Clearer staff role and functions, and lines of authority, including with District Assemblies and District Health Management Teams
Private Sector	Policy & Regulatory Framework – Private Sector Policy to be refined or bring within the context of where PPP engagement can be realized in the health sector (service delivery, procurement, supply chain, pre-service training, etc); where the appropriate regulatory environment is created and incentives are offered for private sector engagement to support the public sector agenda. HR Roles & Functions – Review and strengthen regulatory capacity for licensing and accreditation. – Strengthen capacity of the private sector unit at MOH with better collaboration and coordination with MOFEP and the National Planning Commission. Coordination & Partnerships – Provide oversight and coordination role on some of the following activities: (i) work with MOFEP on issues of better access to credit for the private sector in health; (ii) work with NHIA to move the agenda for accreditation of private sector. – Form partnerships with private sector (e.g. through PPP) in various areas, as has so far been done with CHAG on service delivery; there may be other opportunities for (contracting in/contracting out) certain services such as laboratory services, BOT, procurement, transportation, leasing equipment, etc.
Health Service Delivery	

Physical capital: infrastructure, medical and ICT equipment and vehicles	<u>Infrastructure</u> Policy -Set infrastructure policy, standards and guidelines, using equity and efficiency principles. HR Roles & Functions – Reorganize the Infrastructure dept (BEU) at MOH. Planning & Coordination – Improve planning through coordination mechanisms for new infrastructure with the public and non-public sector. – Plan and implement construction with appropriate budgets for capital investments and for recurrent budgets, to assure completion and functionality. – Improve recurrent budgets in parallel to allow for HRH, equipment and building depreciation/maintenance <u>Medical:</u> Regulatory Framework – Develop a regulatory framework for equipment management Standards, Inventory & Monitoring – Develop a medical equipment list for all health facilities and use it in NHIS accreditation standards, licensing and such – Regularly check on inventory, and plan replacement of outdated or aged medical equipment, with appropriate planned budgets for its replacement. – Provide recurrent budgets for medical equipment maintenance and reagents. <u>ICT:</u> Regulatory Framework – Develop a HMIS framework for the health sector – Standards, Inventory & Monitoring – Develop ICT needs assessment, including electronic, mobile and others – Develop health data dictionary – Review and upgrade hospital HMIS – Review and upgrade district level HMIS <u>Transport</u> Policy – Refine and develop an integrated Transport Management System Policy for MOH and its agencies that would reduce duplication and inefficiencies and provide greater equity. Partnerships & Coordination – Review the current private sector engagement (in terms of affordability, efficiency and effectiveness), and consider the options to work with the private sector for delivery, and/or maintenance services
Human Resources for Health	Policy & Standards – Refine HRH Policy Framework and 5-year plans – Refine/develop the HRH Education Policy Framework (jointly between MOH and Ministry of Education) Accountability – Pilot test incentives schemes and evaluate their outcomes, before scaling up, – Consider financial and non-financial incentives – Develop performance contracts and improve accountability Partnership & Monitoring – Develop plans for upgrading skills of the District Health Management Teams

	– Develop plans for skills enhancement and/or recruitment of appropriate non-clinical staffing in the areas of management, accounting, epidemiology, M&E, ICT, and project management – Engage in dialogue with the private sector in the area of provision of education, delivery of services, and management of districts programs Develop an HRH database which regularly monitors and updates HWs from public and non-public sector
Pharmaceuticals	Policy & Regulatory Framework – Improve regulatory capacity – Develop policy and standards for drug local manufacturing HR Roles & Functions – Review the role and functions of the MOH department for pharmaceutical procurement and supply chain Pricing & Financing – Introduce more rational reimbursement methods, including capitation for basic primary care medicines, bundling in G-DRG payments, reference pricing or other modern reimbursement methods – Reduce expenditure for generic medicines through pooled procurement – Consider copayments on drugs Partnership & Coordination – Strengthen capacity of supply chain, include considering private sector partnership/contracting for supply chain/transport, etc. – Improve information systems and introduce incentives for rational use of medicines – Update Drug List based on medical appropriateness criteria – Develop communication strategies for consumers and providers – Conduct audits to ensure quality of drugs procured by agents/GMP, and drugs available at health facilities
Health Financing	
Strategy	-Develop a Health Financing Strategy -Support demand-side financing initiatives -Reduce fragmentation in health financing flows and funds -Improve expenditure management and tracking systems and support NHA -Firm up plans for devolution of financing functions
NHIS Eligibility Changes	-Focus on the Poor (support and scale up common targeting) -Consider changing the eligibility unit -Develop incentives to encourage enrollment
NHIS Basic Benefits Package	-Re-assess the BBP on the basis of cost-effectiveness, financial protection, and sustainability criteria -Consider developing cost-sharing at least for certain services and beneficiary groups -Improve coordination with vertical public health programs
NHIS Revenues	-Assess increasing the VAT Earmark and SSNIT contributions -Introduce Sin Taxes -Consider exemption of beneficiaries based on means testing -Assess a One-time Premium/fee on members -Create further incentives to encourage enrollment of informal sector workers -Consider income-related premiums -Assess the role and appropriate level for the reserve fund

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 -Review the current G-DRG, which separates services from drugs reimbursement. -Review the pricing structure under G-DRG -Review incentives and their effects on utilization patterns, including drug use
Cost containment	-Improve audits for fraud prevention -Improve gate-keeping to reduce unnecessary use of services, or use of primary services at higher level facilities
Administrative Reforms	-Review and upgrade the CPC HMIS -Review and integrate the NHIS beneficiaries database with the claims reimbursement database -Use data to support evidence based policies and systems -Centralize some controls -Support strengthening the decentralized systems -Refine the role of DMHIS and upgrade skills

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