LIBERIA'S SECOND-ROUND NATIONAL HEALTH ACCOUNTS

PART I: INSTITUTIONAL HEALTH SPENDING 2009/10

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November 2011

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Cooperative Agreement No.: GHS-A-00-06-00010-00

Submitted to: Scott Stewart, AOTR
Health Systems Division
Office of Health, Infectious Disease and Nutrition
Bureau for Global Health
United States Agency for International Development

Suggested Citation: Ministry of Health and Social Welfare and Health Systems 20/20 Project. November 2011. *Liberia's Second-Round National Health Accounts: Part I: Institutional Health Spending 2009/10*. Bethesda, MD: Health Systems 20/20 project, Abt Associates Inc.

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ACRONYMS

BPHS	Basic Package of Health Services
FBO	Faith-based Organization
FS	Financing Source
GDP	Gross Domestic Product
HC	Function
HF	Financing Agent
HP	Provider
LISGIS	Liberia Institute for Statistics and Geo-Information Services
MOHSW	Ministry of Health and Social Welfare
NGO	Nongovernmental Organization
NHA	National Health Accounts
NHE	National Health Expenditure
NSK	Not Specified by Any Kind
SD	Standard Deviation
TIHE	Total Institutional Health Expenditure
US$	U.S. Dollar
USAID	United States Agency for International Development

FOREWORD

Most of the complex policy issues facing developing and fragile post-conflict countries relate to health care financing, including: How much is invested in the overall health sector? Is this adequate to meet equity and efficiency goals? Are there other possible additional sources of financing that could be mobilized? What health services should be prioritized for a basic package and what is the appropriate mix of mechanisms to finance this package? National Health Accounts (NHA) is a useful tool to understand and to inform responses to these policy issues.

NHA tracks all expenditure flows across a health system, and describes the sources, flow, and uses of financial resources within the health system, a basic requirement for optimal resource mobilization and allocation. NHA is therefore an essential component of successful implementation of health reforms aimed at improving the provision of an optimal package of health care. This report highlights findings from Part 1 of the second round of NHA undertaken by the government of Liberia. Part 1 used the NHA framework to estimate institutional health spending for financial year 2009/10. Part 2, which will incorporate the household expenditure on health thereby completing the NHA exercise, is planned for mid-2012, following the household-based survey to be conducted by the Liberia Institute for Statistics and Geo-Information Services and Ministry of Health and Social Welfare. The NHA findings will inform our understanding of how health care is financed in Liberia and serve as a baseline for the recently launched National Health and Social Welfare Policy and Plan 2011–2021.

Sources of health care funding in Liberia include the government of Liberia, donors, private firms, and households. (As explained above, this Part 1 report excludes household spending.) Resources mobilized from these sources are channeled through intermediaries (called financing agents) to the providers of health care services and ultimately to the goods and services produced or paid for with those funds. For the 2009/10 estimation, a wide range of data and information were collected from various government documents. In addition, surveys targeted to donors, nongovernmental organizations, and insurance and other private companies were conducted to complete the NHA process.

The NHA estimates provided in this report are intended for all stakeholders involved in Liberia's health care system – public, private, and donor. It is hoped that the estimates will directly inform policy and further enlighten the development of the country's health care financing strategy. The findings should also encourage additional research into Liberia's health care financing, leading to a better understanding of the problems facing the health sector while identifying areas in need of reform.

This NHA exercise was a collaborative effort between the Ministry of Health and Social Welfare and our development partners. The United States Agency for International Development's Health Systems 20/20 project provided technical support.

It is my hope that stakeholders in health sector will use the findings to refocus their resources to cost-effective interventions that will accelerate our pace toward achieving the Millennium Development Goals.

Walter T. Gwenigale, MD
Minister of Health and Social Welfare
Republic of Liberia

ACKNOWLEDGMENTS

This summary report on institutional health spending for financial year 2009/10 is the product of efforts from many people and institutions. The NHA estimates are based on data collected by the Ministry of Health and Social Welfare's (MOHSW) Department of Planning, Research and Development from the private sector, donors, nongovernmental organizations (NGOs), and faith-based organizations, and, to an extent, other government ministries and agencies.

The MOHSW would like to acknowledge the financial support provided by the United States Agency for International Development (USAID). USAID's Health System 20/20 project provided technical assistance through the efforts of Tesfaye Dereje, Geir Sølve Sande Lie, Darwin Young, Marie-Jeanne Offose, Sayaka Koseki, and Catherine Connor. The support provided by Randolph Augustine and Sophie Parwon, both of USAID/Liberia, is greatly appreciated.

The MOHSW also appreciates the support, cooperation, and information supplied by government departments, private organizations, NGOs, insurance companies, development partners, and private firms, without which the NHA study could not have been completed. Special thanks go to all the MOHSW departments and sections that participated and provided data. Special acknowledgements are extended to the data collectors for the institutional surveys and the Health Management Information System staff for their magnificent contribution.

Benedict C. Harris, Assistant Minister for the MOHSW Department of Planning, Research and Development, oversaw the whole process, including the coordination of the data collection, entry, analyses, and the compilation of the NHA report. Appreciation goes to the remaining central NHA team members: Domnic Togba, Roland Y. Kesselly, Bennetha J. Sampson, Marcus J. Gonny, and Momolu Trowen Massaquoi. We would also like to extend our thanks to the different program heads at the ministry.

Finally, implementing NHA estimation is a process that must constantly be improved. Users of the data and the analyses in this report therefore are invited to freely comment on its contents, presentation, and format; as did feedback on the previous NHA exercise, the input will reveal areas where improvements could be made.

Yah M. Zolia
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EXECUTIVE SUMMARY

INTRODUCTION

National Health Accounts (NHA) exercise is an internationally recognized methodology used to track total expenditures in a health system for a specified period of time. Liberia performed the NHA in financial year (FY) 2009/2010 – the second time the NHA has been performed in Liberia, the first being in FY 2007/08 – to collect the baseline data to inform policy-making and strategic planning for future resource mobilization, an initiative declared in the National Health and Social Welfare Policy and Plan 2011–2021. Because no household health expenditure survey has been conducted in Liberia since 2009, this document highlights the first part of the full NHA exercise, focusing only on the institutional health spending. Part 2 of this NHA exercise is planned for FY 2012/13 to incorporate household spending on health.

The overall objective of this first part of the Second Round NHA exercise was to estimate total institutional health expenditure (TIHE) and furthermore, analyze the distribution of TIHE by financing sources, financing agents, provider of health services, and ultimate use of the funds.

A wide range of primary and secondary data and information were collected from government documents and key informants. The data sources can be broken up into five main categories: 1) Government data, 2) Employer surveys, 3) Donor surveys, 4) Insurance surveys, and 4) NGO surveys. No extrapolations were made upon the data retrieved, except for employer surveys, where 22 of the 30 employers surveyed responded.

GENERAL INSTITUTIONAL HEALTH SPENDING FINDINGS

TIHE in 2009/10 was close to US$127 million, an almost double increase from the previous NHA in 2007/08 when TIHE was US$65 million. Per capita TIHE was US$33.4. this almost meets the $34.0 per capita minimum that 2001 WHO Commission on Macroeconomics and Health report stated as required in low-income countries to provide a basic package of essential health services. Compared to the 2009/10 gross domestic product (GDP) of US$933 million, TIHE comprises of 14 percent, which is consistent with the WHO recommendation that countries should spend at least 5 percent of GDP on health.

Looking at the financing sources, 83 percent of TIHE was financed by the donors, followed by central government revenues (14 percent), and private and parastatal companies (3 percent). The employers funded only 0.02 percent of TIHE. It is reasonable to say that Liberia is highly dependent on donor funding and indicates susceptibility of the overall health spending to donor spending fluctuations. Despite the significant increase in the absolute value of TIHE, the government spending on health leaves more to be desired; currently at 7.7 percent of total government spending, proportion of expenditures on health has increased from 6.8 percent in 2007/08, but is still far from the Abuja Declaration target of 15.0 percent.

Financing agents are the institution that receive and manage funds from financing sources to pay for or purchase health goods and services. The two largest financing agents were nongovernmental organizations manage the largest proportion of TIHE (68 percent) followed by Ministry of Health and Social Welfare (MOHSW) excluding the John F. Kennedy (JFK) Medical Center (25 percent). These rates are significantly different from 2007/08, when the government (including JFK Medical Center) managed 51 percent of TIHE and NGOs managed 44 percent. This reversal indicates the urgent need for MOHSW and its development partners to achieve the pooling and harmonization objectives indicated in the national policy and plan.

Public health facilities were the largest providers of health care that used the funds. 48.0 percent was utilized by such facilities, while private health facilities only utilized 7.0 percent of TIHE. Hospitals, regardless of ownership, consumed around 30 percent of TIHE and health centers and clinics consumed 24 percent. Give that the national policy and plan focuses on primary care to provide the basic package of health services (BPHS), this distribution proportion may need further analysis.

Looking further into the providers that consume MOHSW funds worth approximately US$30.9 million, government administration on health, provider and administrator of public health programs, government health centers/clinics, and government-owned hospitals used up almost all of the funds (28.1 percent, 26.3 percent, 24.2 percent, and 20.6 percent respectively), with very minimal proportion used by NGOs (0.4 percent). On the other hand, NGOs manage approximately US$85.5 million, of which top three consumers were the provider and administrator of public health programs (28.1 percent), government-owned hospitals (25.3 percent) and government health centers/clinics (22.2 percent).

Finally, the TIHE can be categorized by health care functions, the types of goods and services provided and activities performed within the health accounts boundary using these funds. Curative care is still the largest function in which the funds are used, 48 percent during 2009/10 (45 percent in 2007/08). There was a slight decline in the proportion of funds used for prevention services (28 percent in 2009/10 while it was 34 percent in 2007/08).

CONCLUSIONS AND POLICY IMPLICATIONS

In sum, four key conclusions can be derived from this NHA exercise looking at the TIHE of Liberia in 2009/10:

1. Liberia saw a **significant increase in absolute value of institutional health spending** in the last 2 years, almost doubling the TIHE from 2007/08 NHA exercise, Liberia's TIHE has reached US$126 million, or US$33.4 per capita. However, **the donors remain to fund overwhelming large proportion of TIHE** at 82 percent, making the country's health system vulnerable to donor funding fluctuations. While the government health spending increased by 22 percent in absolute terms, **the share of government health spending out of total government spending is still low**, at 7.7 percent highlighting the need to identify and introduce new domestic financing mechanisms.
2. **MOHSW's programmatic responsibility increased** by 9 percent to almost US$31 million between 2007/08 and 2009/10. However, **the majority of donor financing still flows directly through the NGOs**. Unlike in 2007/08, when the public sector managed majority of the institutional spending, NGOs now manage the majority of institutional resources spent on the health sector.
3. **Hospitals, regardless of their ownership, consume the largest share of TIHE**, followed by the health centers and clinics. **Curative care consume the majority of the TIHE**, while the proportion used by prevention service has decreased.
4. The 2007/08 NHA exercise illuminated the significant role the household spending play in the total health expenditure. **It is critical to determine the current role of out-of-pocket spending**, to see the policy implications of the elimination of user fees.

In addition to the pending household survey to complete this exercise, this NHA exercise indicates the further research in areas such as:

- Another round of Benefit Incidence Analysis to look at who benefits from the resources flowing through the public sector (i.e., public subsidy);
- Distribution of resources coming to the health sector by region/counties;
- A fiscal space analysis to look at how much room there is to raise resources for the health sector especially from domestic sources; and

Review of the resource allocation criteria, by looking at resource requirements between the different level of care (hospital vs. clinics/health centers) and functions (curative vs. preventive) against the country's burden of disease.

INTRODUCTION

In 2010, the government of Liberia developed its second National Health and Social Welfare Policy and Plan 2011–2021 (Ministry of Health and Social Welfare [Liberia] 2011). That document recognizes the need for data on existing health financing that will serve as a baseline to inform policy-making and strategic planning for future resource mobilization and guide investments in the health sector. To obtain such data, Liberia began a NHA exercise, the second time the country had done an NHA estimation.

NHA is an internationally recognized methodology used to track total expenditures in a health system for a specified period of time. That is, NHA details the flow of health funding from financing sources (e.g., ministry of finance, donors, and households), to financing agents, who manage the funds (e.g., ministry of health, NGOs, and households), to providers (e.g., public and private facilities), and finally to end uses (e.g., inpatient and outpatient care and pharmaceuticals). NHA findings serve as a policy tool, both to inform policy-making and to monitor how well resources are targeted to health system goals and priority areas.

Because no household health expenditure survey has been conducted in Liberia since 2009, the Ministry of Health and Social Welfare (MOHSW) will conduct the current NHA exercise in two installments.

- **Part 1**: Part 1, the topic of this summary report, captures **institutional health spending only**. It includes all the health spending by government, donors, NGOs, and private employers in 2009/10 and **excludes household expenditure**.
- **Part 2**: Planned for FY 2012/13, Part 2 will incorporate household spending on health to complete the NHA exercise and capture the magnitude and distribution of total health expenditure. To make the exercise policy-relevant and maintain uniformity with the first round of NHA, Part 2 will also include three NHA subaccounts on health issues that reflect much of Liberia's disease burden: malaria, reproductive health, and child health.

The MOHSW Division of Policy and Health Financing coordinated Part 1 in collaboration with the Research Unit and with technical support from USAID's Health Systems 20/20 project, led by Abt Associates Inc. The exercise started in April 2011 with the development of the data collection tools, mobilization of resources, and work plan. The findings will be used as a platform for informing policy decisions concerning health sector resource allocation; they will also be used by stakeholders in the sector.

1.1 OVERVIEW: HEALTH STATUS IN LIBERIA

Liberia has a total area of 111.4 thousand km^2. Its total population of 3.99 million (The World Bank 2011) is one of the smallest in the West Africa region. Life expectancy has improved over the past five decades from 37.65 in 1960 to 55.48 in 2009 (The World Bank 2011). The total fertility rate is high, at 5.9. Women begin having children at an early age; child-bearing peaks among women between the ages of 20 and 24 years, the largest age cohort for women (63 percent of all the women) (National Malaria Control Program (NMCP) [Liberia], Ministry of Health and Social Welfare et al. 2009). These factors indicate that, if unchecked, population growth will gain momentum in the coming years.

To keep the promise made in the National Health Policy 2007 to provide citizens with health care at the highest level of care possible, the government embarked on a series of activities (Ministry of Health and Social Welfare [Liberia] 2007). Over the past five years, the government, with its development partners, streamlined its focus to a BPHS for improving priority health areas such as maternal and child health. Concurrently, it engaged in rebuilding/building health facilities to expand physical access to care, and it increased human resources for health in a way to fill identified gaps. According to a 2010 accreditation survey (Ministry of Health and Social Welfare [Liberia] 2011), the number of functioning health facilities has increased from 354 in 2006 to 550 in 2010, while the number of health workers has grown by 115 percent from 3,996 (2006) to 8,553 (2009). Facilities approved to provide the BPHS grew from 36 percent of all functioning facilities in 2008 to 80 percent in 2010.

These coordinated and extensive efforts have resulted in a relatively improved health status for Liberians. Nevertheless, health indicators remain very low compared with world standards. Maternal and child mortality are still high at 994 per 100,000 and 71 per 1,000 respectively (Liberia Institute of Statistics and Geo-Information Services (LISGIS), Ministry of Health and Social Welfare [Liberia] et al. 2008). Forty-two percent of Liberian children under five are stunted, increasing their risk of dying from normal childhood illness and risk of chronic illness later in life (Ministry of Health and Social Welfare [Liberia] 2011).

Looking beyond averages in health data reveals some large differences in both health status and health service use by wealth quintile in Liberia (Table 1.1). While birth per woman has increased in all quintiles, women in the lowest quintile have more than double the fertility rate than the ones in the highest quintile in 2009. Stunting is more prevalent among children under five in households in the lowest wealth quintile (40 percent) than the ones in the highest income quintile (20 percent). Similarly, the share of children under five who are underweight drops with an increase in wealth.

TABLE 2.1: SELECTED HEALTH STATUS INDICATORS AND HEALTH SERVICE USE BY WEALTH QUINTILE, LIBERIA

	Year	Q1 (lowest)	Q5 (highest)
Total fertility rate (TFR) (births per woman)	2009	8	3.2
Unmet need for family planning (total) (% of married women)	2007	32.3	31.6
Malnourished children (stunting, -2SD) (% of children under 5)	2007	38.5	20.4
Malnourished children (underweight, -2SD) (% of children under 5)	2007	25.8	16.5
Malnourished children (wasting, -2SD) (% of children under 5)	2007	5.9	5.6
Place of delivery (births at health facility) (% of births)	2007	20.2	71
Problems in accessing health care (getting money for treatment) (% of women)	2007	74.1	37.2

Source: World Bank (2011)
Note: SD=standard deviation

The most significant disease threats for children under five include malaria, acute respiratory infections, diarrhea diseases, and malnutrition (Ministry of Health and Social Welfare [Liberia] 2011). Of these, malaria accounts for the most outpatient hospital visits. Sanitation and access to clean water is still severely lacking in many areas, as are qualified health care workers, particularly in rural regions (Liberia Institute of Statistics and Geo-Information Services (LISGIS), Ministry of Health and Social Welfare [Liberia] et al. 2008).

There are also gaps between population groups in terms of health services; in the lowest quintile, only 20.2 percent of women deliver at a health facility compared with 71.0 percent in the highest quintile. This presumably is related to the share of women for whom financial access to health care is an issue: 74.1 percent of women in the lowest quintile have this problem compared with 37.2 percent in quintile five.

Building on the momentum towards improving the health status of the population that commenced with the recently concluded National Health Policy 2007 and based on the MOHSW situation assessment (Ministry of Health and Social Welfare [Liberia] 2011), the government developed the National Health and Social Welfare Policy and Plan 2011–2021 to guide the sector for the next 10 years.

1.2 CONCEPT AND PURPOSE OF NHA

NHA is a systematic, comprehensive, and consistent methodology for monitoring financial resource flows in a country's health system. It is a tool for health sector management and policy development that measures total public and private (including households) health expenditures. It uses actual expenditures – as opposed to budget inputs – and tracks all expenditure flows through the health system, linking the sources of funds to service providers and to the ultimate uses of the funds. Thus, NHA answers questions like: Who pays for health care? How much? For what services? NHA is designed to facilitate evidence-based policy-making and to measure how well the policies are meeting health system goals by policymakers who are entrusted to provide an optimal package of goods and services to maintain and enhance the health of individuals and populations, to be responsive to their legitimate expectations, and to protect them from an unfair financial burden. NHA's internationally standardized

framework also facilitates comparison across countries. NHA "subaccounts" provide detailed breakdowns of expenditures on certain diseases and health conditions such as malaria, tuberculosis, reproductive health, and child health.

In short, NHA provides important data prerequisite to optimizing health resource allocation and mobilization, identifying and tracking shifts in resource allocations (e.g., from curative to preventive, or from public to private sector), comparing findings with other countries, and finally, assessing equity and efficiency in a dynamic health sector environment. Given the flexibility of the NHA, it is also possible to assess whether targeted efforts are having the desired impact.

1.3 POLICY OBJECTIVES OF THE INSTITUTIONAL HEALTH SPENDING

The overall objective of this ***first part of the Second Round NHA exercise*** was to ***estimate TIHE*** in FY 2009/10 with a view to obtain data that will inform the new Health and Social Welfare Policy and Plan 2011–2021. The specific objectives included:

- Determine the distribution of TIHE by financing sources and the institutions that manage the funds (i.e., financing agents); and
- Determine the distribution of TIHE by provider of health services and functions (i.e., the services that are purchased).

1.4 ORGANIZATION OF THIS REPORT

This report is organized into four chapters. Chapter 1 has provided an overview and background information on NHA in general and NHA development in Liberia. Chapter 2 describes the methodology used for this first part of the second round NHA. Chapter 3 presents findings on the general institutional health spending. Chapter 4 gives concluding remarks and recommendations for next steps.

2. METHODOLOGY

2.1 OVERVIEW OF APPROACH

The first part of the 2009/10 Liberia NHA was conducted in accordance with the "Guide to producing national health accounts, with special application for low-income and middle-income countries" (The World Bank, World Health Organisation (WHO) et al. 2003). A wide range of primary and secondary data and information were collected from government documents and key informants. The following primary surveys were conducted for the purposes of the NHA:

- Employer surveys
- Donor surveys (both bilateral and multilateral donors)
- Insurance (public and private)
- NGOs involved in health

The following secondary data sources were used:

- Republic of Liberia MOHSW Unaudited Financial Statements for the year ended June 30, 2010
- Republic of Liberia MOHSW Pool Fund Annual Performance Report for 2009/10
- Liberian National Budget 2011/12
- Health Management Information System

2.2 SAMPLING FRAME AND METHODOLOGY FOR PRIMARY DATA COLLECTION

2.2.1 EMPLOYER SURVEYS

The NHA team obtained from Ministry of Labor a census list of employers and their corresponding number of employees. The list was then narrowed to the employers with 20 or more employees (taken as a "universe," i.e., list of employers large enough to be able to provide health benefits – either in a workplace clinic or through health insurance – to their employees). A total of 30 employers were randomly sampled, of which 22 responded to the questionnaire.

To extrapolate the health expenditures of the 22 respondents, the firms were divided into terciles based on their respective number of employees who would be eligible to receive health benefits within the study timeframe. A weighting factor was generated by determining the number of employees in surveyed firms compared with the number of employees in non-surveyed firms. The health expenditures for the surveyed employers were multiplied by their respective weights to estimate the total health expenditures by employers.

2.2.2 DONOR SURVEYS

Foreign assistance is a very significant source of financing for Liberia's health sector. A census listing of all donors involved in the health sector was compiled from the list from the first-round NHA (Government of Liberia and Health Systems 20/20 2009), the Office of Financial Management and the External Aid Coordination Unit of the MOHSW Department of Planning, Research and Development. Twenty-one donors were identified and surveyed; all returned a completed survey questionnaire.

2.2.3 INSURANCE SURVEYS

Based on the previous NHA, a list of seven insurance companies providing health coverage was developed. All seven companies were sent a survey questionnaire; six completed and returned the questionnaire. No extrapolation was done.

2.2.4 NGO SURVEYS

A list of NGOs involved in the health sector was compiled based on the previous NHA and the list of NGOs registered to be working in the health sector from the Ministry of Planning and Economic Development. All the 47 NGOs identified were surveyed; 31 responded to the questionnaire. No extrapolation was made; rather, the health expenditure information for the missing NGOs were captured from the donor surveys.

3. GENERAL INSTITUTIONAL HEALTH SPENDING FINDINGS

3.1 SUMMARY OF GENERAL INSTITUTIONAL HEALTH SPENDING FINDINGS

The current exercise revealed that TIHE in 2009/10 has almost doubled since the first-round NHA exercise in 2007/08. The TIHE increased from US$65 million to close to US$127 million over the two years. Per capita TIHE also grew substantially, from US$18.7 in 2007/08 to US$33.4 per person in 2009/10.

In 2009/10, GDP at the current market price was US$933 million; TIHE comprises 14 percent of GDP. This is consistent with the WHO recommendation that countries should spend 5 percent of GDP on health (Savedoff 2007).

Table 3.1 provides summary of the institutional health spending for 2009/10 as well as the findings from the previous NHA exercise for comparison.

TABLE 3.1: SUMMARY OF GENERAL INSTITUTIONAL HEALTH EXPENDITURE FINDINGS, 2007/08 AND 2009/10

Indicators	2007/08*	2009/10
Total population	3,489,072	3,915,026**
Total real GDP	US$670,000,000	US$932,833,104
Total government health expenditure	US$15,470,944	$18,856,0291
Total institutional health expenditure (TIHE)	US$65,165,100	US$126,640,438
TIHE per capita	US$18.68	$32.35
TIHE as % of nominal GDP	9.7%	13.6%
Government health expenditure as % of total government expenditure	7.73%	6.79%
Financing Source as a % of TIHE		
Public	24%	15%
Private	4%	3%
Donor	72%	82%
Financing Agent Distribution as a % of TIHE		
Public	52%	29%
Private	4%	3%
NGOs	44%	68%
Provider Distribution as a % of TIHE		
Public facilities	63%	49%
Private facilities	10%	7%
Other2	27%	44%
Function Distribution as a % of TIHE		
Curative care	45%	48%
Prevention and public health programs	34%	28%
Health administration	11%	92%

Indicators	2007/08*	2009/10
Capital formation for health care provider institutions	10%	6%
Other		9%

Sources: *(Government of Liberia and Health Systems 20/20 Project 2009), ** (The World Bank 2011)

Note 1: In addition to MOHSW expenditure, includes expenditure on the semi-autonomous hospitals, expenditures to private insurance enterprises, and other line ministries expenditure on health from the government source.

2: Includes providers of public health programs, general administrators (both private and government) and providers not specified by kind

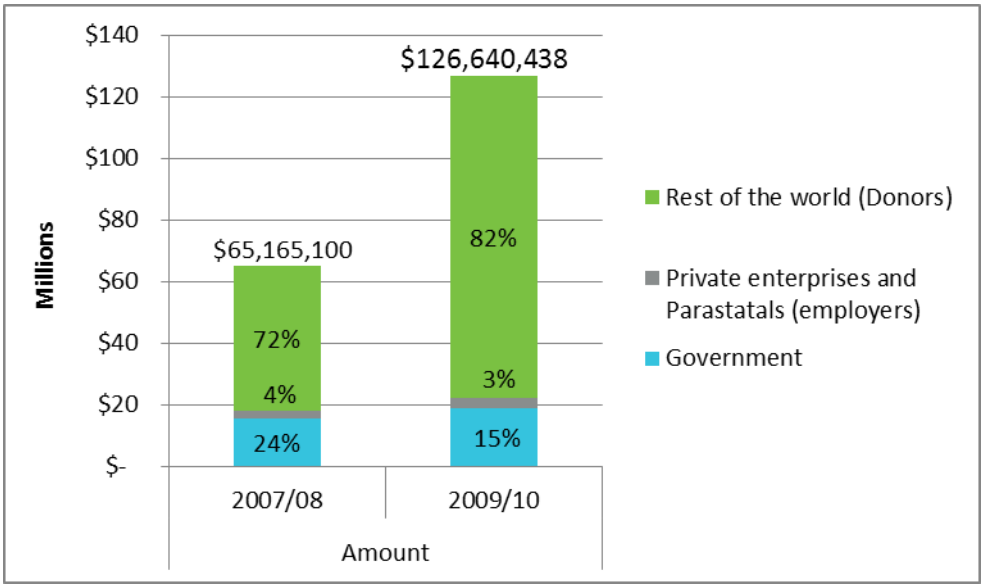
3.2 FINANCING SOURCES: WHO PAYS FOR HEALTH CARE?

In the NHA framework, financing sources are those persons or institutions that contribute funds used in the health care system. The health sector in Liberia obtains varying levels of funding from the traditional sources for their institutional health spending: public (government), private firms, and donors. Figure 3.1 provides a breakdown of TIHE by financing source. Donors ("rest of the world") contributed 83 percent of TIHE, followed by central government revenues, at 14 percent, and private and parastatal companies at 3 percent; employers fund only 0.02 percent.

As stated above, TIHE in Liberia in 2009/10 was US$27 million, or US$32.46 per capita. This per capita amount – which accounts for health spending only by institutions, even before household spending on health is included – approximates to the $34.0 minimum (about US$40.0 in 2007 prices) that the often-cited 2001 WHO Commission on Macroeconomics and Health report stated as required in low-income countries to provide a basic package of essential health services (Sachs 2001). This makes Liberia one of few low-income countries that spend a relatively high amount on health.

As stated above, TIHE increased dramatically between 2007/08 and 2009/10. However, government spending on health, 7.7 percent of total government spending, while up from 6.8 percent in 2007/08, is still far from the Abuja Declaration target of 15.0 percent and indicates the need to further increase this spending (Organisation of African Unity 2001). Recognizing this and the need to move toward sustainable financing of the sector, the National Health and Social Welfare Policy and Plan 2011–2021 proposed exploration of new domestic financing mechanisms such as hypothecated taxes and sin taxes.

FIGURE 3.1: BREAKDOWN OF TIHE BY FINANCING SOURCE, 2007/08 AND 2009/10



As the TIHE amount has grown, donor spending has replaced an appreciable share of government spending. As seen in Figure 3.1, since the 2007/08 NHA, there has been a 10 percent increase in the relative donor contribution; that is, the proportion of TIHE funded by the government decreased from 24 percent to 15 percent, while the share of donor spending increased from 72 to 82 percent. There was little change in the employer contribution.

It is reasonable to say that Liberia is highly dependent on donor funding for health and should donors reduce spending on health in Liberia, it is uncertain if the government has the needed fiscal space for health to compensate the reductions. This indicates the susceptibility of the overall health spending to donor spending fluctuations.

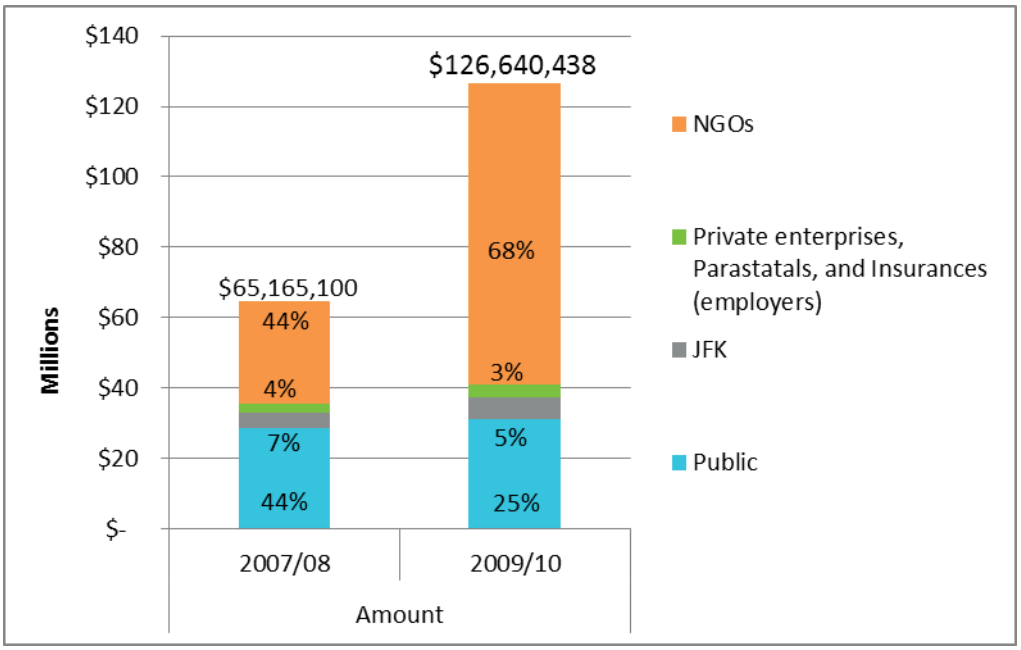
3.3 FINANCING AGENTS: WHO MANAGES HEALTH FUNDS?

Financing agents are institutions that receive and manage funds from financing sources to pay for or purchase health goods and services. They maintain programmatic control over how resources are allocated across providers and determine which functions, in which proportions, will consume the resources mobilized. Financing agents are entities such as the MOHSW, parastatals, public and private insurance entities, NGOs, private firms, and sometimes donors.

Nonprofit institutions serving households (NGOs) manage the largest proportion of TIHE (68 percent), followed by the MOHSW, 25 percent. The John F. Kennedy (JFK) Medical Center, private for-profit companies, private insurance enterprises, other ministries combined manage less than 10 percent of TIHE (Figure 3.2).

It is important to note that the MOHSW had a programmatic role over approximately US$31 million in 2009/10, an 8 percent increase from 2007/08 and in line with the harmonization and alignment principles of the National Health and Social Welfare Policy and Plan 2011-2021. However, the percentage breakdown indicates a significant decline in the public sector's role: whereas in 2007/08 when the public sector (including JFK Medical Center) managed 51 percent of TIHE, by 2009/10 its share had fallen to 30 percent, while the share that NGOs manage increased from 44 percent to 68 percent. This reversal indicates that there is considerable work ahead for the MOHSW and its development partners to achieve the pooling and harmonization objectives indicated in the national policy and plan.

FIGURE 3.2: BREAKDOWN OF TOTAL INSTITUTIONAL HEALTH EXPENDITURE BY FINANCING AGENT, 2007/08 AND 2009/10



3.4 PROVIDERS OF HEALTH CARE: WHO USES HEALTH FUNDS TO DELIVER CARE?

Health care providers are entities that receive money to produce goods and services within the health accounts boundary: these include public and private facilities, pharmacies and shops, traditional healers, community health workers as well as public health programs and general health administration. Public health programs refer to the provision and implementation of programs such as health promotion and protection. General health administration expenditures are the costs of overall regulation of activities of agencies that provide health care.

In 2009/10, public health facilities continued to consume the major share of TIHE. A look at health spending across levels of care, shown in Table 3.2, indicates that hospitals, regardless of ownership, consumed around 30 percent of TIHE, and health centers and clinics consumed 24 percent. (Comparison between public and private sector facilities was not possible given that private health facility data for 2007/08 had not been broken down by level.) Considering that the primary focus of the national policy and plan is on delivery of the BPHS at the primary level, the reasonableness of this spending breakdown by level requires further analysis.

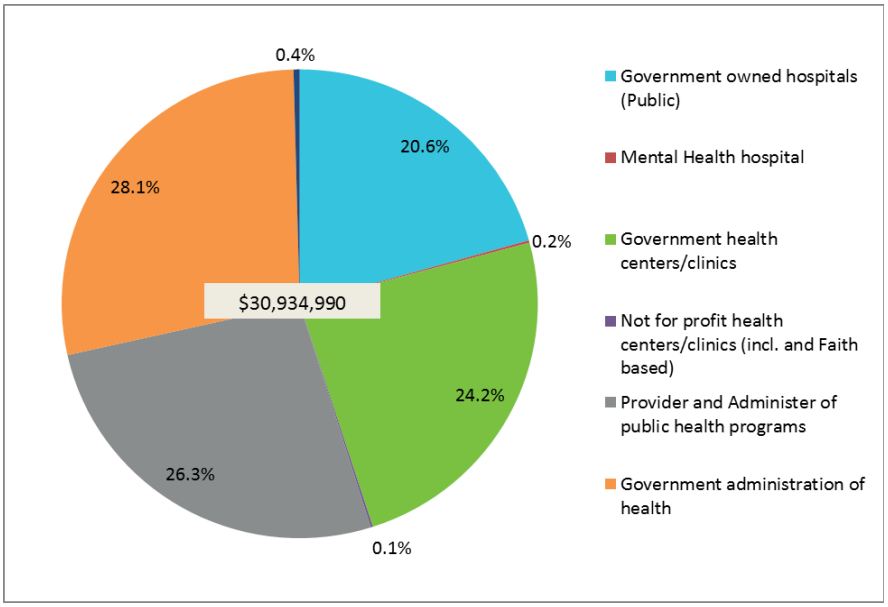
TABLE 3.2: BREAKDOWN OF TOTAL INSTITUTIONAL HEALTH EXPENDITURE BY PROVIDER, 2007/08 AND 2009/10

	2007/08		2009/10	
Provider	**Amount**	**Share**	**Amount**	**Share**
Public Health Facility	**$35,925,855**	**55.1%**	**$60,850,206**	**48.0%**
Government hospitals	$20,801,475	31.9%	$34,269,245	27.1%
Government health centers and clinics	$15,124,379	23.2%	$26,580,961	21.0%
Private Health Facility	**$5,145,570**	**7.9%**	**$8,861,031**	**7.0%**
Private not-for-profit hospitals	n/a	n/a	$4,202,508	3.3%
Private not-for-profit health centers and clinics			$411,448	0.3%
Private for-profit hospitals			$301,918	0.2%
Private for-profit clinics			$3,945,158	3.1%
Other Health Providers	**$6,538,177**	**10.0%**	**$1,634,893**	**1.3%**
Dispensing pharmacies and drug shops	$1,773	0.0%	$2,892	0.0%
Trained traditional midwives	$1,350,666	2.1%	$140,448	0.1%
Community health volunteers	$5,185,738	8.0%	$1,491,553	1.2%
Other	**$17,555,499**	**26.9%**	**$55,294,308**	**43.7%**
Providers/ Administrators of public health programs	$9,725,718	14.9%	$32,312,020	25.5%
General government administrators of health programs	$7,497,469	11.5%	$10,860,129	8.6%
All other providers of health administration (incl. insurance)	n/a	n/a	$842,901	0.7%
Employer onsite facilities	n/a	n/a	$2,773,666	2.2%
Providers not specified by kind	n/a	n/a	$8,505,592	6.7%
Others	$332,312	0.5%	n/a	n/a
TIHE	**$65,165,100**		**$126,640,438**	

3.4.1 WHICH PROVIDERS CONSUME MOHSW FUNDS?

Of the approximately US$31 million managed by the MOHSW, government administration on health consumed the largest proportion, 28 percent (Figure 3.3). Provider and administrator of public health programs followed, at 26 percent; government health centers/clinics, at 24 percent; and government-owned hospitals, at 20 percent.

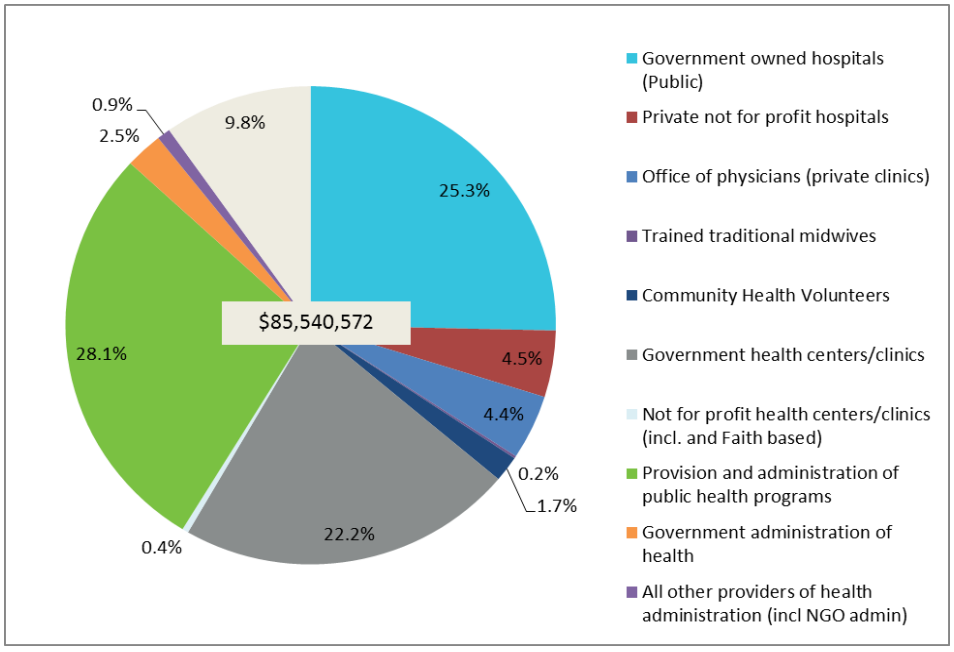
FIGURE 3.3: WHICH PROVIDERS CONSUMED MOHSW FUNDS, 2009/10?



3.4.2 WHICH PROVIDERS CONSUME NGO FUNDS?

The three providers that consumed the greatest percentages of the US$85.5 million that NGOs managed in 2009/10 were: provider and administrator of public health programs (28 percent), government-owned hospitals (25 percent), and government health centers/clinics (22 percent) (Figure 3.4).

FIGURE 3.4: WHICH PROVIDERS CONSUMED NGO FUNDS, 2009/10?



3.5 HEALTH CARE FUNCTIONS: WHAT SERVICES AND/OR PRODUCTS ARE PURCHASED WITH HEALTH FUNDS?

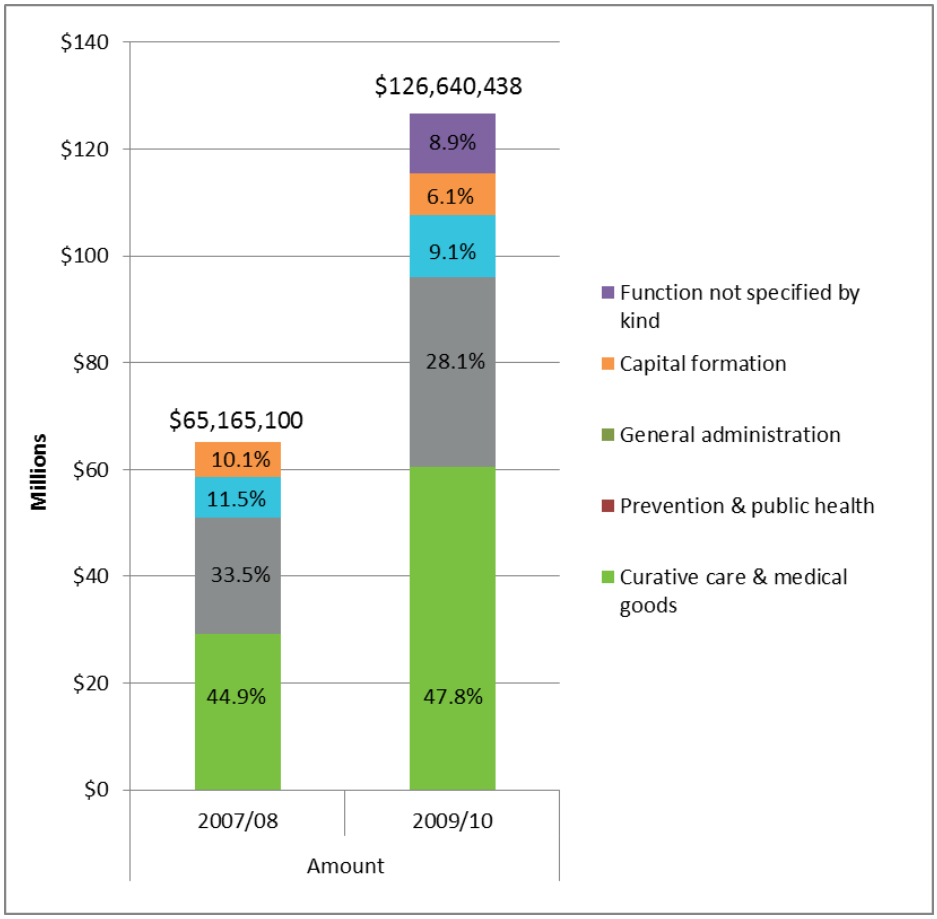
Health care functions refer to the goods and services provided and activities performed within the health accounts boundary. General health functions include curative care (inpatient and outpatient), provision of pharmaceuticals from independent pharmacies (i.e., pharmaceuticals not procured from a health facility as part of inpatient or outpatient treatment), prevention and public health programs, health care administration, and capital formation.

Inpatient care refers to the care delivered to a patient who is formally admitted to an institution for treatment for a minimum of one night (and includes all associated costs for labs, medicines, operations, etc.), while outpatient care refers to medical services administered to patients who are not admitted to the facility (do not stay overnight).

Curative care refers to services provided in public and private hospitals, in health care centers and clinics, and by community health workers and traditional healers. The NHA estimate includes all costs associated with treatment at these facilities, including for drugs, labor, and overhead. Pharmacies and other medical nondurables refer to goods purchased from mobile vendors, community health workers, dispensing chemists, and/or shops.

In Liberia in 2009/10, curative care consumed 48 percent of TIHE, a slight increase from the 45 percent consumed in 2007/08. Conversely, there was a slight decline in the share of spending on preventive activities. This reinforces the need to look into efficiency and effectiveness of the existing resource allocation among the different programs.

FIGURE 3.5: BREAKDOWN OF TOTAL INSTITUTIONAL HEALTH EXPENDITURE BY FUNCTION, 2007/08 AND 2009/10



4. CONCLUSIONS AND POLICY IMPLICATION

Magnitude and sources of institutional health spending: Between the two rounds of NHA, for 2007/08 and 2009/10, Liberia witnessed an almost doubling of institutional health spending. TIHE has reached US$126 million, or US$33.4 per capita. This has brought Liberia's health spending closer to the WHO-recommended US$34.0 (US$40.0 in 2007 constant dollars) and well above the recommended 5 percent share of health spending out of the country's GDP to14 percent.

However, the breakdown of TIHE by financing source reinforces concerns about the sustainability and predictability of health financing. Donors now finance a large majority of TIHE (82 percent), a 10 percent increase from 2007/08, while the public sector finances only 15 percent of TIHE. Private and parastatal employers contribute the remaining 3 percent, in financing health services for their employees.

While government health spending increased 22 percent in absolute terms, the share of government health spending out of total government spending is 7.7 percent. This indicates a need to identify and introduce new domestic financing mechanisms in the short and medium term as discussed in the National Health and Social Welfare Policy and Plan 2011–2021.

Programmatic role of institutional spending: Between 2007/08 and 2009/10, the programmatic responsibility of the MOHSW increased by 9 percent, to almost US$31 million. This points to increased government ownership, harmonization, and alignment.

However, the majority of donor financing (the major source of institutional spending) still flows directly through the NGOs. This limits the share of institutional health resources over which the ministry has programmatic control. As a result, unlike in 2007/08, when the public sector managed majority of the institutional spending, NGOs now manage the majority of institutional resources spent on the health sector. This indicates that a considerable effort is needed to make a greater proportion of donor funds flow through the ministry.

Distribution of TIHE by provider and function: The largest share of TIHE (31 percent) goes to hospitals, regardless of their ownership. This is followed by spending on health centers and clinics (24 percent) and providers of preventive and public health programs (26 percent). Similar to 2007/08, curative care consumes the bulk (48 percent) of TIHE, while the share spent on prevention is 28 percent. Considering that the majority of Liberia's health problems are preventable, and should be handled at the primary level, there is a need to investigate the efficiency and effectiveness of this spending and revisit the resource allocation decisions based on the analysis.

Household spending on health: The 2007/08 NHA showed that households had a major role in financing the health sector. For lack of household data, this Part 1 of the current NHA exercise could not assess whether this dominant role for households continues two years after the suspension of user fees. This is a critical component to gauge the effectiveness of the policy in improving financial access for Liberia and the way forward.

Areas for further research: In addition to performing a household survey to enable the estimation of total health expenditure and its distribution in terms of providers and function, the results from the current exercise indicate areas for further research such as:

- Another round of Benefit Incidence Analysis to look at who benefits from the resources flowing through the public sector (i.e., public subsidy);
- Distribution of resources coming to the health sector by region/counties;
- A fiscal space analysis to look at how much room there is to raise resources for the health sector especially from domestic sources; and
- Review of the resource allocation criteria, by looking at resource requirements between the different level of care (hospital vs. clinics/health centers) and functions (curative vs. preventive) against the country's burden of disease.

ANNEX A: NHA MATRICES

Liberia Institutional Health Expenditure 2009/10: Financing Sources X Financing Agents (FSXHF)

Code	Financing Agent (HF)	Public Funding Source		Private Funding Source		Foreign Funding Source	Row Total
		FS.1.1.1	FS.1.1.3	FS.2.1	FS.2.2	FS.3	
		Central government revenue	Parastatals employer funds	For-profit companies	Household funds	Rest of the world	
HF.1.1.1.1	MOHSW	12,204,104				18,730,886	30,934,990
HF.1.1.1.2	Other ministries	58,197				118,215	176,412
HF.1.1.1.3	JFK Hospital	6,209,345					6,209,345
HF.2.2	Private insurance enterprises	363,571	20,813	492,526			876,909
HF.2.3	Household out-of-pocket			41,623			41,623
HF.2.4	Nonprofit institutions serving households (NGOs)					85,593,562	85,593,562
HF.2.5.2	Private for-profit companies			2,807,598			2,807,598
Total	**Total Health Expenditure**	**18,835,217**	**20,813**	**3,341,746**	**0**	**104,442,663**	**126,640,438**
HF.health related	Financing agents for health-related spending	1,512,123				1,773,150	3,285,273
Grand Total	**National Health Expenditure**	**20,347,340**	**20,813**	**3,341,746**	**0**	**106,215,813**	**129,925,712**

Liberia Institutional Health Expenditure 2009/10: General Financing Agents X Providers (HFXHP)

		HF.1.1.1.1	HF.1.1.1.2	HF.1.1.1.3	HF.2.2	HF.2.4	HF.2.5.2	
		MOHSW	Other ministries	JFK Hospital	Private insurance enterprises	Non profit institutions serving households (NGOs)	Private for profit companies	Row Total
HP.1.1.1	Gov't owned hospitals (Public)	6,384,446	42,477	6,157,475		21,682,506	2,340	34,269,245
HP.1.1.2	Private not for profit hospitals				350,056	3,850,112	2,340	4,202,508
HP.1.1.3	Private for profit hospitals						32,935	32,935
HP.1.2	Mental Health hospital	51,471			217,512			268,983
HP.3.1	Office of physicians (private clinics)				190,762	3,736,728	17,668	3,945,158
HP.3.3.4	Trained trad'l midwives					140,448		140,448
HP.3.3.5	General Community Health Volunteer					1,491,553		1,491,553
HP.3.4.5.1	Gov't health centers/clinics	7,494,502		51,870	31,679	19,002,911		26,580,961
HP.3.4.5.2	Not for profit health centers/clinics (incl. and Faithbased)	42,083	15,720			353,644		411,448
HP.4	Dispensing Pharmacist						2,892	2,892
HP.5	Provision and admin of public health programs	8,141,063	118,215			24,035,362	17,379	32,312,020
HP.6.1	Gov't admin of health	8,693,532				2,166,598		10,860,129
HP.6.4	Other (private) insurance				86,901			86,901
HP.6.9	All other providers of health administration (incl NGO admin)					756,000		756,000
HP.7	All other industries (incl. Schools, SOS incl employer clinics)						2,773,666	2,773,666
HP.nsk	Providers not specified by any kind	127,892				8,377,700		8,505,592
Total	**Total Institutional Health Expenditure**	**30,934,990**	**176,412**	**6,209,345**	**876,909**	**85,593,562**	**2,849,221**	**126,640,438**
HP.8.1	Research	8,229		400,417		116,438		525,084
HP.8.2	Education and training	453,644				245,486		699,130
HP.8.3	Other institutions providing health related	710,241				1,350,819		2,061,060
Grand Total	**National Institutional Health Expenditure**	**32,107,104**	**176,412**	**6,609,762**	**876,909**	**87,306,305**	**2,849,221**	**129,925,712**

Liberia Institutional Health Expenditure 2009/10: General Financing Agents X Functions (HFxHC)

		HF.1.1.1.1	HF.1.1.1.2	HF.1.1.1.3	HF.2.2	HF.2.4	HF.2.5.2	
		MOHSW	Other ministries	JFK Hospital	Private insurance enterprises	Non profit institutions serving households (NGOs)	Private for profit companies	Row Total
HC.1.1	Inpatient curative care	6,219,288	38,886	5,361,375	529,249	17,709,587	70,305	29,928,691
HC.1.3	Outpatient curative care	7,194,386	19,311	796,100	260,759	21,712,280	630,866	30,613,702
HC.5	Medical goods dispensed to outpatients						2,892	2,892
HC.6.1	Maternal and child health; family planning and counseling	2,407,432				8,806,980		11,214,412
HC.6.2	School Health Services		75,432					75,432
HC.6.3	Prevention of communicable diseases	86,005	42,783			4,666,639	17,379	4,812,806
HC.6.4	Prevention of non-communicable diseases	166,538						166,538
HC.6.9	All other public health programs	5,629,397				13,650,475		19,279,872
HC.7.1	General government administration of health	8,318,602				2,337,415		10,656,017
HC.7.2.2	Health admin: Other Private Insurance				86,901			86,901
HC.7.3	Technical Assistance	20,000				756,000		776,000
HC.nsk	Function not specified by any kind	116,380				11,139,385		11,255,766
HC.R.1	Capital formation for health care provider institutions	776,962		51,870		4,814,802	2,127,778	7,771,411
Total	**Total Institutional Health Expenditure**	**30,934,990**	**176,412**	**6,209,345**	**876,909**	**85,593,562**	**2,849,221**	**126,640,438**
HC.R.2	Education and training	453,644				245,486		699,130
HC.R.3	Research and development in health	8,229		400,417		116,438		525,084
HC.R.4	Food hygiene and drinking water control					1,075,820		1,075,820
HC.R.5	Environmental health					255,000		255,000
HC.R.6	Social welfare programs	710,241				20,000		730,241
Grand Total	**National Institutional Health Expenditure**	**32,107,104**	**176,412**	**6,609,762**	**876,909**	**87,306,305**	**2,849,221**	**129,925,712**

Liberia Institutional Health Expenditure 2009/10: Providers X Functions (HPxHC)

	Gov't owned hospitals (Public)	Private not for profit hospitals	Private for profit hospitals	Mental Health hospital	Office of physcians (private clinics)	Trained trad'l midwives	Gen. Comm. Health Volunteer	Gov't health centers/ clinics	Not for profit health centers/clinics (incl. and Faith based)	Disp. Pharm.	Provision & admin of public health programs	Gov't admin of health	Other (private) insurance	All other providers of health admin (incl NGO admin)	All other industries (incl. Schools, SOS incl employer clinics)	Providers not specified by any kind	Total Institutional Health Expenditure	Research	Education and training	Other institutions providing health related	National Institutional Health Expenditure
Inpatient curative care	22,272,069	2,230,105	28,358	199,772	1,893,116	34,645		3,135,931	96,901						37,792		**29,928,691**				**29,928,691**
Outpatient curative care	4,466,440	1,972,402	4,577	17,739	2,052,042			21,312,827	169,576						608,096	10,000	**30,613,702**				**30,613,702**
Medical goods dispensed to outpatients										2,892							**2,892**				**2,892**
Maternal and child health; family planning and counseling	101,524					105,803		938,502			10,068,583						**11,214,412**				**11,214,412**
School Health Services											75,432						**75,432**				**75,432**
Prevention of communicable diseases							432,873	720,945			3,658,988						**4,812,806**				**4,812,806**
Prevention of non-communicable diseases				51,471							115,067						**166,538**				**166,538**
All other public health programs	29,470						1,058,680	36,463			18,155,258						**19,279,872**				**19,279,872**
General government administration of health	170,818											10,485,200					**10,656,017**				**10,656,017**
Health admin: Other Private Insurance													86,901				**86,901**				**86,901**
Technical Assistance	20,000													756,000			**776,000**				**776,000**
Function not specified by any kind	2,537,425										224,260					8,494,080	**11,255,766**				**11,255,766**
Capital formation for health care provider institutions	4,671,498							436,293	144,970		14,431	374,930			2,127,778	1,512	**7,771,411**				**7,771,411**
Total Institutional Health Expenditure	**34,269,245**	**4,202,508**	**32,935**	**268,983**	**3,945,158**	**140,448**	**1,491,553**	**26,580,961**	**411,448**	**2,892**	**32,312,020**	**10,860,129**	**86,901**	**756,000**	**2,773,666**	**8,505,592**	**126,640,438**	**0**	**0**	**0**	**126,640,438**
Education and training																			699,130		**699,130**
Research and development in health																		525,084			**525,084**
Food hygiene and drinking water control																				1,075,820	**1,075,820**
Environmental health																				255,000	**255,000**
Social welfare programs																				730,241	**730,241**
National Institutional Health Expenditure	**34,269,245**	**4,202,508**	**32,935**	**268,983**	**3,945,158**	**140,448**	**1,491,553**	**26,580,961**	**411,448**	**2,892**	**32,312,020**	**10,860,129**	**86,901**	**756,000**	**2,773,666**	**8,505,592**	**126,640,438**	**525,084**	**699,130**	**2,061,060**	**129,925,712**

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