SIERRA LEONE
NATIONAL HEALTH ACCOUNTS

2013

Tracking the flow of money through the health sector
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### Abbreviations and Acronyms

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<th>Description</th>
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<tbody>
<tr>
<td>A4P</td>
<td>Agenda for Prosperity</td>
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<tr>
<td>AIDS</td>
<td>Acquired immune deficiency syndrome</td>
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<td>CHC</td>
<td>Community Health Center</td>
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<td>CHP</td>
<td>Community Health Post</td>
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<td>CMS</td>
<td>Central Medical Stores</td>
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<td>DHPSPPI</td>
<td>Directorate for Health Systems, Policy, Planning and Information (New)</td>
</tr>
<tr>
<td>DPPI</td>
<td>Directorate of Policy, Planning and Information (Formerly)</td>
</tr>
<tr>
<td>ECOWAS</td>
<td>Economic Community of West African States</td>
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<td>FA</td>
<td>Financial Agent</td>
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<td>FHCI</td>
<td>Free Health Care Initiative</td>
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<td>FP</td>
<td>Family Planning</td>
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<td>FS</td>
<td>Financial Sources</td>
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<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
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<td>GoSL</td>
<td>Government of Sierra Leone</td>
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<tr>
<td>HA</td>
<td>Health Accounts</td>
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<tr>
<td>HAPT</td>
<td>Health Accounts Production Tool</td>
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<tr>
<td>HIV</td>
<td>Human Immunodeficiency Virus</td>
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<tr>
<td>MCHIP</td>
<td>Maternal and Child Health Post</td>
</tr>
<tr>
<td>MDG</td>
<td>Millennium Development Goals</td>
</tr>
<tr>
<td>MoFED</td>
<td>Ministry of Finance and Economic Development</td>
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<tr>
<td>MoHS</td>
<td>Ministry of Health and Sanitation</td>
</tr>
<tr>
<td>MRU</td>
<td>Mano River Union</td>
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<tr>
<td>NGO</td>
<td>Non-Governmental Organization</td>
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<td>NHA</td>
<td>National Health Accounts</td>
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<td>NPS</td>
<td>National Public Services Survey</td>
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<tr>
<td>OOP</td>
<td>Out-of-pocket Expenditures</td>
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<tr>
<td>PBB</td>
<td>Performance Based Financing</td>
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<tr>
<td>PHU</td>
<td>Peripheral Health Unit</td>
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<tr>
<td>PRSP</td>
<td>Poverty Reduction Strategy Paper</td>
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<tr>
<td>RH</td>
<td>Reproductive Health</td>
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<tr>
<td>SLIHS</td>
<td>Sierra Leone Integrated Household Survey</td>
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<tr>
<td>STI</td>
<td>Sexually Transmitted Disease</td>
</tr>
<tr>
<td>TB</td>
<td>Tuberculosis</td>
</tr>
<tr>
<td>THE</td>
<td>Total Health Expenditures</td>
</tr>
<tr>
<td>UHC</td>
<td>Universal Health Coverage</td>
</tr>
<tr>
<td>USD</td>
<td>United States Dollar</td>
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<td>WHO</td>
<td>World Health Organization</td>
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The Government of Sierra Leone has committed itself in the Agenda for Prosperity to work towards providing universal quality health care by 2035. Availability of adequate funds is key in achieving this goal. The National Health Accounts are a vital source of information in the attempt to make evidence-based decisions and understand the shortcomings and strengths of the health sector. This is the third NHA to be conducted in Sierra Leone and we aim to systematically conduct one every year.

With the majority of Sierra Leoneans living below the poverty line and health expenditures often proving to be a major factor in the poverty trap, it is crucial to understand the spending patterns in the health sector. By tracking all funds in the health sector, the NHA clearly shows who is paying for what and how much, how funds are being distributed and who benefits from the health care services. The NHA helps to adequately identify gaps in financing, but it also highlights inefficient allocations of current funds. Combining the financing data with data on disease burden helps understand where cost-efficient treatments are possible and where a lot of money is spent for less value. It also provides crucial information about the health sector pre-Ebola.

One thing that the Ebola Virus Disease outbreak has taught is that the health system was weak and could not contain the epidemic when it was still isolated in one district in the East of the country. The health system has been underfunded and remained vulnerable to shocks from health emergencies, including Ebola, despite lessons learned from a cholera outbreak two years earlier. As we embark on an ambitious post-Ebola health sector recovery plan, the publication of this NHA report is timely and of immense value to the further health system strengthening. It is hoped that all stakeholders will use the information contained in this 2013 NHA to improve decision-making, support policy-making and planning for short- and long-term. The Ministry of Health and Sanitation plans to conduct the next NHA in 2015, which will capture Total Health Expenditure in Health inclusive of the massive investments to fight the Ebola Virus Disease outbreak.

We acknowledge the financial support of the World Bank and technical support provided by the World Health Organization for the completion of this report, as well as the financial contribution and technical support given by Options: MamaYe Campaign.

Dr Abu Bakarr Fofanah
Minister of Health and Sanitation
July 28, 2015
NATIONAL HEALTH ACCOUNTS 2013

Executive Summary

Total Health Expenditure 2013 is about Le 2.5 trillion, which equals about USD 590 million.

This means, that each Sierra Leonean consumed health services valued nearly Le 400,000 in 2013 - about USD 95. The bulk of that money was paid by each individual: about 62% of it was paid out of pocket.

GoSL, 6.8%
Donor, 24.4%
OOP, 61.6%
NGO, 7.2%

Inpatient care
Outpatient care

Private
Public

Hospital
Pharmacy
PHUs & private clinics

>5 years: 73%
<5 years: 27%

26% of THE is spent on Reproductive Health
20% of THE is spent on Malaria
7% of THE is spent on Family Planning
6% of THE is spent on HIV/AIDS
4% of THE is spent on TB
37% of THE is spent on other diseases
BACKGROUND

INTRODUCTION
This is the third National Health Account conducted in Sierra Leone. It is an attempt to study the pattern and flow of funds in the health sector as well as assess the extent to which government complies with international commitments relating to health expenditure (e.g. Abuja declaration targeting 15% of Government expenditures to be spent on health). It further helps the government to assess where there are financial shortfalls and bottlenecks, as well as highlight particular parts of the sector that are working more efficiently.

The 2013 NHA uses the Health Accounts Production Tool recently developed by the World Health Organization. This tool is designed to capture all health expenditure at national level and figures compared nationally as well as internationally.

Key health financing indicators calculated through the NHA are:

- Total health expenditure
- Total health expenditure per capita
- Government expenditure on health as a percentage of total government expenditure
- Household out of pocket expenditures on health
- Health expenditures through MoHS
- Financial sources breakdown
- Health expenditures on different health goods and services

An understanding of each of the above health financial indicators is crucial to the development of an innovative health financing strategy.

The Sierra Leone third NHA survey (2013) was conducted with the following objectives:

- To estimate the total health expenditure from the various sources or agents (i.e. all entities that provide funds in the health system to the group that spends the money)
- To determine total health expenditure by the various financing agents and providers (i.e. all entities that channel funds to providers of health care to pay for health related activities.
- To track the flow of health funds from the financing agents on the various functions (i.e. all entities that channel funds from sources and the services they buy)
- To track the flow of health funds from the providers on the various functions (i.e. services provided in the health sector).

The rest of the report is structured as follows: a brief background is given in chapter 2 on the country context and especially the health sector, including key health indicators. The methodology is explained in detail in chapter 3, whereas the results are presented in chapter 4. The appendix section contains a complete set of all tables and a comparison of the last NHA with this year’s NHA. If not otherwise stated, all graphs and tables are produced using NHA 2013 data.

COUNTRY CONTEXT
The country is situated on the west coast of Africa, bordering the North Atlantic Ocean between Guinea and Liberia. The country has a tropical climate with two distinct seasons: a dry season which starts in November and ends in April and a rainy season that starts in May and ends in October.
There are about 15 distinct language groups found in Sierra Leone reflecting the diversity of cultural traditions. Administratively, the country is divided into four major regions, namely Northern Province, Southern Province, Eastern Province and the Western Area where the capital Freetown is located. The three provinces are divided further into twelve districts, which are in turn sub-divided into chiefdoms made up of a collective of several villages. The chiefdoms are governed by local paramount chiefs. The Western Area is divided into two districts, Western Area Urban and Western Area Rural, with no chiefdoms. With the devolution of services to local communities, the country has been divided into 19 local councils which are then further sub-divided into 392 wards.

The Republic of Sierra Leone has an estimated population of 6.2 million people of which 37% resides in urban areas. Sierra Leone is characterized by a youthful population. About 42 percent of the people are under the age 15. The country therefore faces the challenge of providing its youth with opportunities for a safe, healthy, and economically productive future.

**ECONOMY**

The Sierra Leonean economy is predominantly agrarian as Agriculture accounts for about 41% of the real gross domestic product (GDP). Services are next to agriculture as a major percentage of GDP, at about 34 percent. The Manufacturing sector, consisting mainly of import-substituting industries, accounts for only 2 percent of GDP. The mining sector accounted for 12 percent of GDP in 2012 (SSL,

Figure 1: Sectorial allocation of GDP from 2009-2013

Coffee, cocoa, and fish are the major agricultural exports of the country.
The performance of the Sierra Leonean economy has been declining since the post-independence era, with its greatest decline during the 10-year civil conflict. Since the end of the conflict in 2002, several measures have been put in place to improve the economy and the quality of life of the people. These include the introduction of five-year development frameworks such as the Poverty Reduction Strategy Papers (PRSP), the Agenda for Change, and the Agenda for Prosperity. The economy grew at an annual average of 6 percent between 2007 and 2012. In 2013 the Government of Sierra Leone launched the Agenda for Prosperity (A4P) with the goal to transform Sierra Leone into a middle-income country by 2035.

Agriculture contributes approximately about 50% to total GDP, however, its importance decreased over the past years, mostly due to the continued increase in contribution of the mining sector. Comparatively, the contribution of the Health sector was relatively insignificant in terms of share of GDP. An average of 2% (approximately) spans its intake from 2009 to 2012. Trade and Tourism accounted for little more than Health. Transport and communication contributes an average of 7.5%.

**THE HEALTH SYSTEM**

The Ministry of Health and Sanitation is the major health care provider in Sierra Leone and seeks to maintain and improve the health of all Sierra Leoneans. The main challenges are: malaria, sexually transmitted infections (STIs) including HIV/AIDS, TB, reproductive health including maternal and neonatal mortality, childhood diseases, nutrition-related diseases, water-, food-, and sanitation-borne diseases, disability, and mental illness. The Ministry operates most government health facilities in the country and regulates private-public partnerships. The public delivery system starts from the peripheral health units, which include the Maternal and Child Health Posts (MCHP) and Community Health Posts (CHP) located in villages within chiefdoms as well as Community Health Centers (CHC) at chiefdom headquarter towns. The next level comprises hospitals at the district headquarter towns. The third level of care is provided in hospitals at the regional headquarter towns. There are twenty two public hospitals. However, there are several private clinics and hospital spread across the 14 districts of the country.
In line with the government’s Agenda for Change and the Health Sector Strategic Plan 2011 - 2015, the Free Health Care Initiative (FHCI) was introduced in 2010 to provide free health care services for pregnant women, lactating mothers, and children under age 5. The Free Health Care Initiative focuses on an essential package of healthcare services that will be delivered free of charge to the target group at the point of service to ensure a significant improvement in maternal and child health indices.

One year after the introduction of the FHCI, Performance based financing (PBF) was introduced to complement the FHCI by going some way towards tackling the problem of enabling and encouraging health care providers to provide the desirable quality and quantity of services. Under the PBF scheme, facilities are paid money based on achievement of several quality and quantity indicators.

Other programs being implemented include: free malaria testing and treatment for all age groups in all public facilities in 2011, free HIV/Aids testing and supportive treatment TB and Leprosy. A national strategy for the prevention of teenage pregnancies has been developed and is currently being implemented.

Figure 3: Regional comparison of THE per capita 2010-2012

![Chart showing total expenditure on health per capita in USD for Guinea, Ivory Coast, Liberia, Nigeria, and Sierra Leone for years 2010, 2011, and 2012.]

Source 2: Global Health Expenditure Database, WHO

The MRU total health expenditure per capita, is relatively improving. The above chart depicts a clear picture of the total expenditure on health (capita at exchange rate). Comparatively, in 2010, 2011 and 2012, Sierra Leone recorded USD 69, USD 82 and USD 96, as it is clear that Sierra Leone is making a steady progress in terms of its total expenditure on health (capita at exchange rate). Ivory Coast and Nigeria respectively show steady growth paths of USD 88 and USD 94 in 2012.
Figure 4: Regional comparison of Government contributions to THE 2010-2012

![Graph showing the percentage of government contributions to THE for Guinea, Ivory Coast, Liberia, Nigeria, and Sierra Leone from 2010 to 2012.]

**Source 3: Global Health Expenditure Database, WHO**

Comparatively, in 2011 and 2012 Liberia recorded the highest government contribution to THE (19%), whilst the government of Sierra Leone contributed around 16% to THE. Sierra Leone recorded the least amongst the other members of MRU and ECOWAS in terms of its government expenditure on health (% of THE). The difference between the Global Health Expenditure Database and the findings of this NHA can be attributed to different methodologies, as the WHO is quoting government spending, which includes funding from donors through the public sector. The NHA 2013 results indicate government funding.

Figure 5: Regional comparison of donor contributions to THE 2010-2012

![Graph showing the percentage of donor contributions as a percentage of THE for Sierra Leone, Guinea, Liberia, Cote Di Voire, and Nigeria from 2010 to 2012.]

**Source 4: Global Health Expenditure Database, WHO**

Figure 5 represents regional comparison of donor contributions as a percentage of THE from 2010 to 2011. In 2010 Sierra Leone and Guinea received the same percentage of THE as donor contributions (27%), while in 2011; Sierra Leone recorded 18% which is 6% higher than what Guinea received for the same period. Comparatively, for the three consecutive years Liberia received the highest donor contributions as a percentage of THE. Nigeria recorded 8% of donor contributions in 2010 and an average of 5% for the two consecutive years.
METHODOLOGY

The 2013 NHA uses the Health Accounts Production Tool developed by the World Health Organization. The data collection process started with a meeting introducing the tool to the respondents and basic training on how to complete the tool electronically.

Both primary and secondary data were collected. Primary data were collected using the Excel Health Account created questionnaire. The questionnaire differs according to the level of support of the respondent.

A total of ten data collectors were trained and arranged in groups of two with assigned list of respondents from which data should be collected.

DATA COLLECTION

Both primary and secondary data were collected as follows:

**PRIMARY DATA:** These were collected electronically from the different respondents. Research instruments were sent via email to the respondents to be completed and submitted within 2 weeks. The completion process was supported by the NHA team and lasted for 4 weeks.

**SECONDARY DATA:** These were collected by the team from Central Medical Store (CMS), Pay Roll, Hospital, GoSL Budget/Expenditure and Out of Pocket Expenditure (OOP) data.

The survey participants were selected using the previous respondents list and updating it with all available information from the donor liaison’s office. In order to allow efforts to be efficiently used, the respondents were categorized into three categories, namely HIGH, MEDIUM and LOW, based on their financial importance in the health sector.

<table>
<thead>
<tr>
<th>Level of relevance</th>
<th>Administered</th>
<th>Completed</th>
<th>Response (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>32</td>
<td>27</td>
<td>84</td>
</tr>
<tr>
<td>Medium</td>
<td>38</td>
<td>11</td>
<td>29</td>
</tr>
<tr>
<td>Low</td>
<td>3</td>
<td>0</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Level</th>
<th>Administered</th>
<th>Completed</th>
<th>Response (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>14</td>
<td>14</td>
<td>100</td>
</tr>
<tr>
<td>Medium</td>
<td>1</td>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td>Low</td>
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In addition, a total of five (5) Insurance companies were surveyed and three (3) responded. Of the 20 employers administered, 3 responded. The employer sample was partly made of mining companies, while the other half was a sample of previous respondents. They were prioritized in reference to their high degree of health contribution and the remaining list was left for random sampling. The response rate was low as employers were reluctant to release data on their health expenditures and also difficult to follow up. However, as indicative figures suggested that their
contribution to the total health expenditures is at a minimal level, it was decided to leave them out of the 2013 NHA.

The secondary data for 2013 NHA was compiled from various sources. An overview is given in the table below.

**Table 3: Overview of source of secondary data**

<table>
<thead>
<tr>
<th>No</th>
<th>Data description</th>
<th>Source</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Data of drug dispersion with an overview of recipients, prices and dispatch date.</td>
<td>Central Medical Stores, Directorate of Drugs and medical supplies, National Pharmaceutical Unit</td>
</tr>
<tr>
<td>2</td>
<td>Overview of all staff on government payroll in 2013, including their workstation and salary.</td>
<td>Human Resources for Health Directorate</td>
</tr>
<tr>
<td>3</td>
<td>Utilization data from government hospitals from a random selection of months and hospitals for 2013.</td>
<td>Directorate of Policy, Planning and Information</td>
</tr>
<tr>
<td>4</td>
<td>Utilization data from all PHUs for all diseases for 2013.</td>
<td>Directorate of Policy, Planning and Information</td>
</tr>
<tr>
<td>5</td>
<td>GoSL expenditure data to calculate Government expenditure in 2013 for health.</td>
<td>Ministry of Finance and Economic Development</td>
</tr>
<tr>
<td>6</td>
<td>SLIHS 2011/2012 to calculate OOP</td>
<td>Statistics Sierra Leone</td>
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<tr>
<td>7</td>
<td>NPS 2011 to calculate OOP</td>
<td>Innovation Poverty Action</td>
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**DATA VALIDATION**

Several data validation and cleaning exercises were done as follows:

- Comprehensive cleaning and analysis including mapping was done in a one week retreat outside the office with nine participants
- Mini-validation with key stakeholders (donors and big NGOs) with 15 participants
- Main validation will all stakeholders with 45 participants

Also, further checks were done on these data when the team was uploading the data in the Health Account Production Tools (HAPT).

The NHA team was cognizant of the fact that obtaining additional data (or even clarification) about something is not always possible. For instance, the NHA Team had to re-enter and calculate some of these secondary data obtained before usage.

The validation of the data was first carried out with selected key stakeholders from donors and big NGOs after the first mapping exercise. Comments at that forum focused on the high out-of-pocket expenditures, but everyone seemed to agree that this could very well reflect the situation on the ground. After this first mini-validation, the team did further checks and especially followed up on the OOP methodology. Several experts and senior WHO technical experts were consulted. Overall, it was agreed that the existing OOP calculation seems to hold.

The preliminary results were used to draft a first report, which then was verified by a larger group of stakeholders made up of government, donors, civil society and NGOs. Their comments were used to finalize the report.
DATA ANALYSIS
The data was analyzed using the Health Accounts Production Tool (HAPT), an internationally standardized methodology for measuring financial resource flows in the health sector.

All secondary data were cleaned and used to calculate the necessary splits for the mapping of health accounts data. Each calculation is explained below, followed by a table with an overview of the split ratios.

Drug costs
The drug list received by Central Medical Stores was split into the drugs distributed as part of the Free Health Care and the drugs distributed as part of the Cost Recovery Program. They were both aggregated and categorized into the different illnesses meant to be treated by a drug. If a drug can be used to treat several illnesses, it was classified as “Others”. The recipients were either district medical stores or hospitals. It was assumed that all drugs going to district medical stores would be further distributed to PHUs. Losses and other distributions were disregarded in the split calculation.

Figure 6: Provider split for drugs and medical supplies

Payroll data
The payroll data was collected for each month. We used December 2013 data and first assigned the workstation to each worker, categorized into PHUs and hospitals. Administrative staff were equally distributed. Using the actual gross salary, the split was calculated.
Hospital utilization

Hospital data was collected on paper forms and then put into an Access database. Hospital data for 2013 was incomplete but a representative sample was used as proxy. The total figures were extrapolated based on the months and hospitals provided. A tool called WHO CHOICE was used to estimate average costs per bed day, based on average length of stay, occupancy rate and total admissions for 2013. The estimated costs were then again used to calculate the splits from the hospital utilization data.
PHU utilization

Utilization data for all PHUs was provided by the District Health Information System. It was combined with cost estimates to calculate the split for outpatient care and immunization programs, as well as a disease split.

Figure 10: Provider split for general utilization of health care services
Figure 11: Function split for PHU services

Immunisation services make up to 17% of total services provided at PHUs

- Outpatient (HC.1.3.1)
- Immunisation programmes (HC.6.2)

Figure 12: Disease split for general outpatient care

Malaria and reproductive health are the most sought after services

- Malaria (DIS.1.3)
- TB (DIS.1.2)
- HIV (DIS.1.1)
- Other Morbidity (DIS.nec)
- RH (DIS.2.1)
- FP (DIS.2.3)
Household Out-Of-Pocket expenditures

The calculation of out-of-pocket expenditures was done in two separate calculations, while one was used to analyze the breakdown of the expenditures into diseases (percentage split) and one was used to find the total amount of OOP expenditures.

In order to split the OOP expenditures into facility types, age of users and type of service provided, the dataset from the 2011/2012 Sierra Leone Integrated Household Survey was used. All expenditures on health (drugs, consultation fee, and inpatient care) were added up apart from transportation costs. Seasonality was adjusted for. Outliers above three standard deviations from the mean were
excluded (33 observations). This decision was taken in order to account for potential data errors and reporting mistakes. The mean was calculated for inpatient and outpatient care and then annualized with its respective factor. The recall period for inpatient care was four weeks and the recall period for outpatient care was two weeks. Using inflation rates (Consumer Price Index for Sierra Leone), the figure for 2013 was calculated. The expenditures were also split into the different spending units (where was the money spent).

For the total amount reflected in the 2013 NHA, Statistics Sierra Leone provided an overview of all expenditures of respondents, where health was one part of the total expenditure pattern. Total out of pocket expenditures were hence calculated using that figure.

LIMITATIONS

This NHA survey and report is not without limitations. The data collection can never be complete, however, the main NGOs in terms of contribution to the health sector and the main known donors were captured. The employer and insurance survey seems to have been too complicated and the response rate was very low. Sierra Leone has only five insurance companies that are known to offer medical insurance and their expenditures and revenue coming from it are marginal compared to the whole health sector. Employers do contribute to health costs of employees, but it was difficult to get replies from them. This aspect has to be seriously considered next time. The tool has to be made accessible for employers and the data collection needs to be more rigorous.
RESULTS

GENERAL ACCOUNTS
The 2013 NHA survey looked at health expenditure from 1st January to 31st December 2013. Sierra Leone Financing source for health is generated from local as well as the international circles which is classified under four distinctive sources, namely the GoSL, Donors, NGO and Households Out-Of-Pocket (OOP). The NHA 2013 study revealed that National Total Health Expenditure (THE) in 2013 is Le. 2.5 billion. The table below presents distinctive expenditures in terms of percentage for each of the four main financing sources. OOP accounted for 61.6% of Total Health Expenditures (THE) which is higher than GoSL and Donors that registered 6.8% and 24.4% respectively while NGOs and government share close percentage.

The exchange rate used was the average for the year 2013, where 1 USD equals 4,277 Leones.

<table>
<thead>
<tr>
<th>Financing Source</th>
<th>Amount (Le)</th>
<th>USD ($) EQV</th>
<th>THE (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GoSL</td>
<td>171,690,064,040</td>
<td>40,142,638</td>
<td>6.8%</td>
</tr>
<tr>
<td>DONOR</td>
<td>614,220,929,261</td>
<td>143,610,224</td>
<td>24.4%</td>
</tr>
<tr>
<td>NGO</td>
<td>180,615,391,664</td>
<td>42,229,458</td>
<td>7.2%</td>
</tr>
<tr>
<td>OOP</td>
<td>1,551,096,883,189</td>
<td>362,660,015</td>
<td>61.6%</td>
</tr>
<tr>
<td>Grand Total</td>
<td>2,517,623,268,154</td>
<td>588,642,335</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

Figure 15 below depicts a pie chart on THE with OOP representing a large share of health expenditure in Sierra Leone. According to the GoSL Agenda for Prosperity (A4P) Pillar 3 seeks to empower people to reduce poverty. The high burden of household expense towards demanding health services is critical if government is to sustain economic growth in the country.
Table 5: Total Health Expenditure per capita 2013

<table>
<thead>
<tr>
<th>Financing Source</th>
<th>Total Amount (Le)</th>
<th>Total Amount (USD)</th>
<th>Le / capita</th>
<th>USD / capita</th>
</tr>
</thead>
<tbody>
<tr>
<td>GoSL</td>
<td>171,690,064,040</td>
<td>40,142,638</td>
<td>27,735</td>
<td>6.5</td>
</tr>
<tr>
<td>DONOR</td>
<td>614,220,929,261</td>
<td>143,610,224</td>
<td>99,223</td>
<td>23.2</td>
</tr>
<tr>
<td>NGO</td>
<td>180,615,391,664</td>
<td>42,229,458</td>
<td>29,177</td>
<td>6.8</td>
</tr>
<tr>
<td>OOP</td>
<td>1,551,096,883,189</td>
<td>362,660,015</td>
<td>250,570</td>
<td>58.6</td>
</tr>
<tr>
<td>Grand Total</td>
<td>2,517,623,268,154</td>
<td>588,642,335</td>
<td>406,706</td>
<td>95.1</td>
</tr>
</tbody>
</table>

Table 5: Total Health Expenditure per capita 2013 specified health expenditure per capita, using Statistics Sierra Leone 2013 population projections from the 2004 Census. The study further reveals that GoSL and NGOs are spending approximately USD 6-7 per person in Sierra Leone, while Donors contribute USD 24 and the remaining USD 59 are paid out of pocket. OOP bears the highest incidence of financing health domestically.

GoSL contribution to THE was constantly increasing from 2009-2012. Donors contribution from 2009 - 2010 was quite similar to that of government contributions to THE. Looking at data from WHO Global Health Expenditure Database, the upward trend of the OOP expenditures slowed down. This trend is encouraging and points to the role of the Free Health Care Initiative: part of the user fees were removed, stopping the upwards trend of the out of pocket expenditures.

Figure 16: Contributions to THE in 2013 (USD per capita)
The NHA 2013 reveals that OOP scale is high in the purchase of health services from Health Providers.

Figure 17 trace the flow of health consumers’ demand to that of supply from public and private hospitals. The majority of money is spent at public facilities, whereas the bulk of the money again is spent at the hospital. Three fourth of all costs associated with visits are outpatient visits. This is in line with data from the Sierra Leone Integrated Household Survey 2011/2012, which indicates that only 2% of survey respondents were hospitalized in the last four weeks. Incidence of inpatient treatment is low, however, the associated costs give it a much higher weight in the NHA, as can be seen in Figure 18 below.
Accordingly, Figure 19: THE age distribution according to source (in %) specifically reveals health expenditure distribution in relation to age. The study reveals that Donors interventions focus towards global improvement in terms of maternal and child reproductive health. Donors are contributing 60% towards under 5. Government of Sierra Leone spends more on over 5 than under 5. This can probably be attributed to the FHCl, which is supported by donors through Government. The general picture is strongly influenced by OOP expenditures, which are largely spent on adults. This is also an indication that FHCl is reaching part of its goals and decreases the expenditures of households on the FHCl target groups, hence releasing funds for the treatment of other patients in other age groups.
Table 6: Total Health Expenditures on age 2013 (in Le)

<table>
<thead>
<tr>
<th>Source</th>
<th>Age under 5</th>
<th>Age above 5</th>
<th>Other Age / not specified</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government</td>
<td>58,474,103,449</td>
<td>92,741,639,036</td>
<td>20,474,321,555</td>
<td>171,690,064,040</td>
</tr>
<tr>
<td>DONOR</td>
<td>141,444,225,731</td>
<td>93,951,121,070</td>
<td>55,936,794,997</td>
<td>291,332,141,797</td>
</tr>
<tr>
<td>NGO</td>
<td>119,697,696,208</td>
<td>198,057,508,130</td>
<td>122,083,100,791</td>
<td>439,838,305,129</td>
</tr>
<tr>
<td>OOP</td>
<td>286,950,520,339</td>
<td>1,264,146,362,851</td>
<td></td>
<td>1,551,096,883,189</td>
</tr>
</tbody>
</table>

Figure 19: THE age distribution according to source (in %)
Figure 20: Share of THE for providers of care

Where is the money spent in 2013?

- Public Hospitals: 27.59%
- Peripheral Health Units (PHUs): 11.52%
- Providers of preventive care: 4.19%
- Private Hospitals: 8.62%
- Pharmacies: 4.39%
- Administration: 2.73%
- Private Health Facilities: 0.31%
- Laboratories: 0.02%
- Other: 36.64%

Public hospitals and PHUs each receive 37% and 28% respectively, hence receiving about 65% of THE. Government Health Administration Agencies captures 2.73 and Pharmacies 4.19 percent. Administration at hospital or clinic level was attributed to their agent, and not to general administration. Most of the money is spent at public hospitals, which makes sense, given that inpatient treatment is more expensive than outpatient and most of the patients at clinics fall within the free health care target group. Private facilities still capture 9% of total health expenditures, with the majority thereof collected in an urban setting.
Figure 21: Share of THE spent on functions

What was the money spent on in 2013?

- Outpatient curative care
- Inpatient curative care
- Information, education and counseling programmes
- Other preventive care
- Governance and administration
- Epidemiological surveillance; risk and disease control programmes
- Ancillary services (Lab and similar)
- Preparing for disaster and emergency response programmes
- Other

Figure 21: Share of THE spent on functions reveals that 66 percent and 21 percent respectively go to General Outpatient and Inpatient Curative care. Overall prevention and information campaigns and programmes received nearly 10% of THE, whilst administration captures about 2%. Epidemiological surveillance and disaster and emergency preparedness were hardly financed at all. Considering the recent Ebola Virus Disease outbreak which spread so rapidly with far reaching consequences beyond the health sector, this areas need to be prioritized in future plans.
Figure 22 breaks down the financing sources contributions to the different functions within health. Clear roles become visible - prevention is a priority for NGOs and donors, while GoSL focus more on general curative care. OOP was only broken down into the two types of curative care (inpatient and outpatient care).

Figure 23: Disease split of THE

Nearly half of costs in the health sector can be attributed to Malaria and Reproductive Health

- Malaria: 20%
- Reproductive Health: 26%
- Tuberculosis: 4%
- Other: 37%
- HIV/AIDS: 6%
- Family Planning: 7%
When THE was split by diseases, Malaria and reproductive health took the lion’s share. Together they account for almost half of all health expenditures, which is in line with the country’s disease burden. Figure 23 also confirms the low prevalence of HIV/AIDS in country, with its costs summing up to about 6% of THE.

CAPITAL ACCOUNTS
Capital expenditures capture investments done in country with a longer term payoff. The total amount of capital investments for 2013 is reported to be Le 22,665,966,957, which is equivalent to USD 5,300,000. However, this estimate is probably underreported, as some survey respondents included their capital investments in the recurrent reporting. It nevertheless yields insights into the distribution of capital investments in Sierra Leone. The figures below show the distribution of the money into the function, the providers and the disease.

<table>
<thead>
<tr>
<th>Financing Source</th>
<th>Total Amount (Le)</th>
<th>USD EQV</th>
<th>Le / capita</th>
<th>USD / capita</th>
</tr>
</thead>
<tbody>
<tr>
<td>Donor</td>
<td>7,465,560,416</td>
<td>1,745,513</td>
<td>1,206</td>
<td>0.28</td>
</tr>
<tr>
<td>NGO</td>
<td>10,819,724,590</td>
<td>2,529,746</td>
<td>1,748</td>
<td>0.41</td>
</tr>
<tr>
<td>GoSL</td>
<td>4,380,682,001</td>
<td>1,024,242</td>
<td>708</td>
<td>0.17</td>
</tr>
<tr>
<td>Grand Total</td>
<td>22,665,966,957</td>
<td>5,299,501</td>
<td>3,662</td>
<td>0.86</td>
</tr>
</tbody>
</table>

| Capital Expenditures / Total Expenditures | 0.75% |
Figure 24: Capital Accounts investments into health care providers

Figure 24 shows that hospitals and providers of Health Care System Administration and Financing accounts for 32% each. On the other hand, Providers of Preventive Care and Ambulatory Health Care account for 20 and 11 percent respectively.

Figure 25: Capital Accounts: type of investment

What type of capital investments are made?

- Other gross fixed capital formation: 16%
- Education and training of health personnel: 5%
- Other Machinery and equipment: 38%
- Residential and non-residential buildings: 13%
- Other building structures: 9%
- Medical equipment: 5%
- Transport equipment: 10%
- ICT equipment: 4%
Figure 25 shows that, other machinery and equipment account for over one fourth of the type of capital investment that was done at 38%. A further 22% of investments go into some kind of building structures. The share of medical equipment procured is low, accounting for only 5%, nearly on par with ICT equipment and investments into training of health personnel.

Figure 26: Capital Accounts: Funding Source

NGOs and Donors accounted for 80% of capital investments while Government accounted for 20%.

Figure 27: Capital Accounts disease specific

What disease specific capital investments are done?
The disease specific capital investment shows that maternal conditions and reproductive health account for 32 and 31% respectively. This reflects strong investments into the Free Health Care initiative, combating key maternal and child mortality rates in the country.

Diseases like HIV/AIDS, Vaccine preventable and other disease conditions account for 14, 1 and 22 % respectively. The low percentage of capital investments into vaccines and Malaria indicates a high level of mobility and low needs for capital investments.

CONCLUSIONS AND RECOMMENDATIONS
Following the results obtained during the Health Accounts Survey for 2013, the analysis of secondary data and the discussions held at the two validation workshops held, key issues emerged. It was widely agreed upon that the out-of-pocket expenditures reported are unrealistically high. It is recommended that a fiscal space analysis be conducted as soon as possible to inform Government’s review of its spending on health as a percentage of total public spending. Increased Government allocation to the health sector from the current $6-7 per capita to levels that are comparable with similar countries and in line with international benchmarks should be considered and prioritized.

It was further noted that the focus of donors and NGOs on the Free Health Care initiative is appreciated, but also leads to lack of treatment for other issues. It should not be forgotten that the FHCI target group contains about 1.5m of Sierra Leone’s population, while the remaining 4.5m still constitute the majority. The recommendation is that Free Health Care be expanded as much as feasible for Government and donors to ensure that strides are made toward universal health coverage. Also important will be for the Government, in particular, the Ministry of Health and Sanitation to revive planning for the Sierra Leone Social Health Insurance, a promise to universal health coverage at affordable cost to the average Sierra Leonean.

The public health system provides the majority of health care in Sierra Leone, with private clinics being more prevalent in urban settings. This is also reflected in the amount of money flowing into the private sector: only about 10% of total expenditures. Due to the high prevalence of self-treatment through private pharmacies, the next NHS should attempt to capture the expenditures at this level of health care. There is also a significant role played by the faith based network of hospitals and this group of health care providers is organized through the Christian Health Association Sierra Leone (CHASL.) Data from this group should be collected in future NHAs and included in the report.

Capital investments are seen as indicators of future returns. Total capital expenditures are very low and not even reflect 1% of total health expenditures. They are largely done by NGOs and donors. Sierra Leone is still far from reaching the Primary Health Care ideal of one PHU within a 5 kilometer radius with many of its population still living far away from the nearest health care facility. Government and donor investments in construction of additional public health clinics are necessary and should be prioritized over the medium term.

Total health expenditures in Sierra Leone equals approximately the total Government budget allocated to the health sector. While it is understandable that there are other priorities within the public sector,
it is important to note that only a healthy nation can be productive. Days production lost due to ill-health and disability have been shown to have negative consequences on a country’s economic outlook. Government should consider all feasible options in order to ease the burden of the high out of pocket expenditures among Sierra Leoneans in line with globally agreed instruments including conditions imposed by international bodies. Unexpected high health costs are a major factor for increasing poverty levels\(^1\) - Sierra Leoneans deserve better protection from this poverty trap.

## APPENDIX 1: COMPARISON OF METHODOLOGY 2010-2013

### OVERVIEW OF DIFFERENCES IN METHODOLOGY 2010-2013

<table>
<thead>
<tr>
<th>Primary data collection</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2013</strong></td>
<td><strong>2007-2010</strong></td>
</tr>
<tr>
<td>Standard survey tools from Health Accounts Production Tool distributed to donors (all), NGOs (sample), Employers (sample), Insurance (sample).</td>
<td>Survey tools distributed to government ministries and agencies, Local Councils, NGOs, insurance companies, employers, donors, health service providers and traditional healers.</td>
</tr>
<tr>
<td>Enumerators trained, and allocated to specific organizations to assist with completing the survey. Survey finally submitted in soft copy (excel) and filed at DPPI.</td>
<td>Enumerators trained, and allocated to specific organizations to assist with completing the survey. Survey finally submitted in hard copy and filed at DPPI.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Organization type</th>
<th>Population size</th>
<th>Sample size</th>
<th>Organization type</th>
<th>Population size</th>
<th>Sample size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Donor</td>
<td>14</td>
<td>14</td>
<td>Government Ministries/Agencies</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>NGO</td>
<td>74</td>
<td>42</td>
<td>Local Councils</td>
<td>19</td>
<td>19</td>
</tr>
<tr>
<td>Employer</td>
<td>?</td>
<td>4</td>
<td>NGOs</td>
<td>59</td>
<td>32</td>
</tr>
<tr>
<td>Insurance</td>
<td>5</td>
<td>3</td>
<td>Insurance companies</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Employers</td>
<td>?</td>
<td>87</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Donors</td>
<td>12</td>
<td>12</td>
</tr>
</tbody>
</table>

**Comments**: Collecting data in soft copy has advantages and disadvantages. It was easier to manage soft copy distribution, and share responses with the team. However, some organizations needed to have it printed out for them before they would cooperate.
Employers and insurance companies proved a significant challenge that we still have not negotiated. The last NHA estimated that their contribution to total health expenditure was less than 1%, so, we are keen to press ahead with analysis of the other data.

<table>
<thead>
<tr>
<th>Health service providers</th>
<th>34</th>
<th>34</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional healers</td>
<td>?</td>
<td>44</td>
</tr>
</tbody>
</table>

Comments: The survey was too bulky, so most were left incomplete/inaccurate. One of the arguments for switching to the survey used this year was the increased user friendliness. Furthermore, most data was not used, either because it was not complete enough, or because it was not relevant.

Secondary data collection

<table>
<thead>
<tr>
<th>2013</th>
<th>2007-2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>A variety of secondary data sources were used.</td>
<td>A variety of secondary data sources were used.</td>
</tr>
</tbody>
</table>

1) GOSL expenditure data from budget bureau, MoFED.
2) SL health care utilization from DHIS, hospital records, EPI and MIS 2013. This data was cleaned by replacing blanks with relevant averages.
3) Costing estimates from WHO Choice tool.
4) Payroll and attendance sheet data.
5) CMS drug procurement and supply data.
6) Regional and global comparison estimates from WHO.

Comment: This year we were able to capitalize on the many improvements to health information system that have taken place over the past two years - in particular with the DHIS over the past year. This applies especially to data collected in HF2 and HF3. For next time, there are some areas that could still be improved - especially HF1.

Data cleaning
<table>
<thead>
<tr>
<th>Year</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>Enumerators kept an eye on completeness and accuracy of surveys during data collection. Once all data was collected, and team of 5 spent one day going through all of the surveys to clean them.</td>
</tr>
<tr>
<td>2007-2010</td>
<td>No explicit data cleaning was done. Where data was dirty, it was unusable. This lead to much of the collected data not actually making it into the final analysis. Where data was incomplete, it could not be used.</td>
</tr>
<tr>
<td>2013</td>
<td>Data entry</td>
</tr>
<tr>
<td>2007-2010</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>As we used the Health Account Production Tool software, and collected the data in excel survey format, we were able to just upload the excel files and data was automatically entered.</td>
</tr>
<tr>
<td>2007-2010</td>
<td>Four NHA team members manually entered the survey data into a customized database. This took one month.</td>
</tr>
<tr>
<td>Analysis</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>Eight HA team members spent one week mapping all data to HA internationally comparable codes using the HAPT software. This is where we have got to now.</td>
</tr>
<tr>
<td>2007-2010</td>
<td>WHO TA in country for 10 days to assist with manually mapping the data.</td>
</tr>
<tr>
<td>Validation, publication and dissemination</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>Preliminary validation meetings held with key stakeholders. Big public validation workshop was held. Following this validation, report was written, published and disseminated.</td>
</tr>
</tbody>
</table>
APPENDIX 2: REPORT FROM VALIDATION WORKSHOP 26 NOVEMBER 2014

2013 NATIONAL HEALTH ACCOUNTS VALIDATION WORKSHOP HELD ON WEDNESDAY 26TH NOVEMBER 2014 AT THE HILL VALLEY HOTEL CONFERENCE HALL IN FREETOWN.

PREAMBLE

The National Health Accounts (NHA2013) Validation Workshop was organized by then Directorate of Policy, Planning and Information (DPPI) MoHS, later renamed Directorate of Health Systems, Policy, Planning and Information (DHSSPI). Then Director of DPPI at the Ministry of Health and Sanitation presided over the 2013 NHA Validation Workshop program. The workshop started with a succinct overview of the exercise and employed participants to critically validate this NHA 2013 despite the fact that this exercise was long overdue this he said was evident of the health emergency constraining the country.

That said, the Director formally welcome the Deputy Chief Medical Officer Dr. Sarian Kamara. Her welcome address was precise. Prelude to what participants were expecting she explained the rationale of NHA which implies an annual accounting process geared toward tracking and compiling health expenditure flow in the country. National figures are then compared within the region and globally.

As a Ministry that is, the Ministry of Health and Sanitation, our statutory mandate is to regulate and provide equitable, affordable and quality health services for all in Sierra Leone.

It was worth noting that in 2013 the Total Health Expenditure in Sierra Leone was slightly over Le 3 trillion which equals USD700 million. Interesting to note that about 70% of this total expenditure comes from Households Out -of pocket that is, individuals paying for health related services. Deputy CMO indulged participants that our collective responsibility goes far and wide in understanding the health financial indicators used in this NHA. The production tool was developed by the World Health Organization and used to analyze NHA data. She closed by saying that, in a true spirit, our limitations should not elude us of objectivity. Vibrant and proactive inputs can offer future direction and completeness of this NHA 2013 validation report.

NHA 2013 PRELIMINARY RESULT

During the morning session, the Health Financing Unit made a power point presentation of the preliminary results. Key segments were an overview of results, Total Health Expenditures (THE), trends and regional comparisons, total expenditure on health per capita, out of pocket expenditure as a percentage of THE, government expenditure on health as a percentage of THE, disease burden, utilization rates and an overview of human resources and drug management in country.

THE was more than Le 3 trillion in 2013 and THE per capita was about Le 500,000 which was USD 116. Out of pocket share increased whiles GoSL contributions declines in relation to health expenditures in
previous years. Donors are spending more money on children under 5 than GoSL. Prevention are largely supported by donors and NGOs whilst Reproductive Health account for more than one fourth of expenditures.

GROUP WORK

Participants were divided into five groups with each group being facilitated by a team member from the NHA core team. Group discussion lasted for two hours.

GROUP’S PRESENTATION

The afternoon session was mainly presentation of group’s work and discussion. These were the general conclusions in terms of challenges and recommendations presented:

CHALLENGES

- Negative attitude of health care workers at PHUs and public hospitals (retain and sell drugs to patients)
- Poor monitoring and accountability mechanisms
- No national health insurance scheme
- GoSL is not adhering to international commitments (Abuja target)
- High wage disparity in the health sector leads to de motivation among middle and junior level workers
- Better collaboration between private and government needed
- Display service charters in order to increase transparency and allow accountability
- Increase spending on sensitization / prevention
- Lack of proper distribution plans of FHC drugs
- Inadequate health infrastructures and accessibility in some part of the country

RECOMMENDATIONS:

- Enhance positive image and patient friendly care
- Joint robust monitoring and actions taken on gaps identified in health system
- GoSL to strengthen and enforce accountability mechanisms
NATIONAL HEALTH ACCOUNTS 2013

- GoSL to create a national health insurance scheme
- GoSL keep to her international commitments of Abuja declaration
- GoSL to increase the minimum wage of middle and junior level health
- Quality care for all and not according to social status
- Improve public procurement capacities
- To develop a comprehensive register for all health facilities across the country
- To create an effective administrative management to manage the facilities instead of the doctors or health workers

CONCLUSION

A total of forty-five participants attended the NHA 2013 validation workshop. There was positive consensus with regards to the general conduct of this report and the relatively high standards compared with the previously conducted NHAs. The data presented were reasonably accepted. High Out of pocket expenditure was shocking. Government contributions to total health expenditure decreased in 2013, which led to prolonged discussions.

It is expected that the next NHA should cover areas such as nutrition, Ebola and a disease split for Out of pocket expenditure on health. Participants were impressed with the overall conduct of the validation workshop. The Director was hopeful that a comprehensive NHA 2013 report will be made available to participants.
APPENDIX 3: TABLES FROM HEALTH ACCOUNTS PRODUCTION TOOL

The full table with all data can be retrieved in the Excel file attached below or via sending an email to policymohs@gmail.com and Noemi.schramm@gmail.com requesting the Excel file in case of technical problems.

NHA 2013 report
150211.xlsx
APPENDIX 4: OVERVIEW OF ALTERNATIVE ESTIMATE OF OUT OF POCKET EXPENDITURES

A separate estimation of OOP was done with the National Public Services Survey, with data from 2011. The surveys are both representative, but yield quite different estimates. A complete outline of the NPS estimate can be found in the section below. SLIHS is estimating a four times higher figure than NPS. This is normal given the general uncertainties and errors in household surveys and also highlight some of the issues around out-of-pocket expenditures. Health expenditures fluctuate a lot and outliers normally influence the mean significantly.

This section discusses the quantitative evidence from the Sierra Leone Integrated National Public Services Survey (NPS) 2011 and the qualitative data collected during fieldwork in Tonkolili and Bombali districts in July 2013.

The NPS is a nationally representative household panel. To be representative at the district level small districts were oversampled and a total number of 5,733 households were interviewed. The NPS 2011 focused on health in particular and gives insight into the access and utilization of formal and informal health services by households in urban and rural areas, as well as expenditures and fees charged by health centers. The data was collected during the rainy season months of July - October. Many people fall sick during those months (e.g. high malaria incidence) and have no or very little money due to the lack of farming income.

A. Health expenditure

Households were asked how much they spent in the past one month on “medical services such as doctors and healers” and “medications (including painkillers, anti-malaria, and medications)”. Table 1 shows the combined average expenditure on medication and services. The table distinguishes between “Sick” households who reported to have had at least one sickness in the past one month, and “Not Sick” Households who reported that no one in their household had suffered from sickness in the past month. 35% of households reported to have been sick (see Table 3) and spent on average SLL 27,738 on medication and services. Households that had no sickness incident reported on average to have spent a positive amount of money on medication and services. Average medical expenses were, however, significantly less for reported non-sick households than for sick households (SLL 12,721 vs. SLL 27,738, with t-test showing highly significant difference).

We dropped all observations that were above the cut-off point defined by: upper third quartile + 3*interquartile range (difference between the lower first and upper third quartile).

Looking at expenses for health services and medication separately, we see that households spend similar amounts of money on health services and medication. The average monthly expenditures on health services are SLL 9,460 and on medication are SLL 8,701.

Among households that reported positive expenditure on health services, 77% reported to have been sick. Among households that reported positive expenditure on medication, only 36% said to have been sick in the past month. This leaves a large percentage of households that report to not have been sick but spent money on medication.
It is possible that households purchased medication for future sickness (e.g. malaria medication or painkillers). Alternatively, households may have underreported illnesses for which they did not go to a clinic or healer but self-medicated. Fieldwork in Tonkolili and Bombali districts showed that households regularly purchase medication from mobile peddlers who visit communities and go from door to door to sell medicine (among other goods). Instead of going to a health facility, households prefer the convenience of a peddler and purchase pills from him. Pills were said to be cheaper when purchased from a peddler than from a clinic or pharmacist, though the quality of the pills was said to be doubtful.

Table 2 shows that health expenditures are about half of the size of what households report to spend on education. Households spend on average SLL 17,907 on medication and health services and SLL 36,797 on education. The relative size of education to health expenditure increases for sick households (68%) and is lower for non-sick households (38%). Both expenditure categories were recorded for the past month. These expenditures can’t be annualized as seasonality cannot be accounted for. However, ignoring that and getting an indicative figure for total annual health expenditures of households yields about USD 50. This is less than the estimate of SLIHS. Both estimates can co-exist, as the two surveys had different target groups and methodologies, but it should be acknowledged that out of pocket expenditures are hard to measure and data error or methodology problems are common.

### Table 8: Out Of Pocket Expenditures as per NPS estimate

<table>
<thead>
<tr>
<th>Medical Expenditure (SLL/past month)</th>
<th>Not Sick</th>
<th></th>
<th></th>
<th>Sick</th>
<th></th>
<th></th>
<th>Total</th>
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<tr>
<td></td>
<td>mean</td>
<td>Standard deviation</td>
<td>mean</td>
<td>Standard deviation</td>
<td>mean</td>
<td>Standard deviation</td>
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<td></td>
</tr>
<tr>
<td><strong>Total Medical Expenditure</strong></td>
<td>12,888</td>
<td>18,957</td>
<td>27,773</td>
<td>25,766</td>
<td>17,907</td>
<td>22,625</td>
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</table>

*Total medical expenditure = expenditure on medication + medical services.*
## APPENDIX 5: LIST OF NHA 2013 TEAM MEMBERS

<table>
<thead>
<tr>
<th>NAME</th>
<th>DESIGNATION</th>
<th>ROLE</th>
</tr>
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<tbody>
<tr>
<td>Noemi Schramm</td>
<td>Health Economist, Health Financing Unit</td>
<td>Supervisor, Project Manager</td>
</tr>
<tr>
<td>Mohamed Kapry Kamara</td>
<td>Health Economist, Health Financing Unit</td>
<td>Technical Assistance</td>
</tr>
<tr>
<td>Desmond Conteh</td>
<td>Health Economist, Health Financing Unit</td>
<td>Technical Assistance</td>
</tr>
<tr>
<td>Tamba John</td>
<td>M&amp;E Officer, Health Financing Unit</td>
<td>Technical Assistance, Enumerator</td>
</tr>
<tr>
<td>Alex Jones</td>
<td>Health Economist, Health Financing Unit</td>
<td>Supervisor</td>
</tr>
<tr>
<td>Darwin Young</td>
<td>Consultant, WHO</td>
<td>Technical Assistance, Trainer</td>
</tr>
<tr>
<td>Dr SAS Kargbo</td>
<td>Director, Health Systems, Policy, Planning and Information</td>
<td>Reviewer</td>
</tr>
<tr>
<td>Abou Bakarr Kamara</td>
<td>DPPI</td>
<td>Reviewer</td>
</tr>
<tr>
<td>Ibrahim Koroma</td>
<td>M&amp;E Officer</td>
<td>Enumerator, data analyst</td>
</tr>
<tr>
<td>Ishmael Kamara</td>
<td>Program Manager, Integrated Health Project Administration Unit</td>
<td>Enumerator, data analyst</td>
</tr>
<tr>
<td>Alhassan George</td>
<td>Program Manager, Integrated Health Project Administration Unit</td>
<td>Enumerator, data analyst</td>
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<tr>
<td>Mariatu Challe</td>
<td>M&amp;E Officer, DHSPPI</td>
<td>Enumerator</td>
</tr>
<tr>
<td>Augusta Murray</td>
<td>M&amp;E Officer, DHSPPI</td>
<td>Enumerator</td>
</tr>
<tr>
<td>Thekeka M. Conteh</td>
<td>HMIS Specialist, DHSPPI</td>
<td>Data analyst</td>
</tr>
<tr>
<td>Ibrahim Maaz</td>
<td>Officer, DHSPPI</td>
<td>Enumerator, data analyst</td>
</tr>
<tr>
<td>Solomon Samai</td>
<td>IT Officer, DICT</td>
<td>Enumerator</td>
</tr>
</tbody>
</table>