



**Government of Sierra Leone**  
Ministry of Health and Sanitation

**National Health Sector  
Strategic Plan**

**2010–2015**

**November 2009**

## Foreword

**I**mproving the health of the nation is one of the key priorities of our Government. Formulation and launch of this National Health Sector Strategic Plan (2010 – 2015) for further development of our country's health sector is therefore a major achievement. Considerable progress has been made in reducing the high infant and maternal mortality rates, increasing immunisation coverage rates and increasing the proportion of children sleeping under long-lasting insecticide treated bed nets. Nonetheless, women continue to die at childbirth, too many children die of easily preventable diseases for which cost effective interventions exist and sadly, much remains to be done with regard to tackling ill health related to poverty.

This Plan provides the framework that will guide the efforts of the Ministry of Health and Sanitation (MoHS) and its partners over the next six years in attaining the health related MDGs. It reflects the Ministry's fundamental belief that health is a basic human right. In this regard therefore, health services should be made available, accessible and affordable to all people without discrimination. The Plan further reflects the belief that health fundamentally affects individual productivity and is therefore a critical input for long-term development of the country.

The strategies contained in the Plan focus especially on the needs of mothers, children and the poor. For these vulnerable groups, ill health is not only a personal tragedy but also an economic burden that reinforces poverty nationally. Whilst laying emphasis on these beneficiaries, the Plan concomitantly emphasises strengthening of the entire health system as a key strategy to enhancing efficiency and effectiveness in provision of quality services that will ultimately improve health outcomes.

In cognisance of the aforementioned, the plan is developed around strengthening of six key pillars of the health system, namely: (1) leadership and governance, (2) service delivery, (3) human resources for health, (4) medical products and technologies, (5) healthcare financing, and (6) health information systems. Our priorities are to improve infant and maternal health with the aim of progressively moving towards universal coverage, reducing the burden of communicable and non-communicable diseases and improving the quality of services provided by retaining highly qualified and motivated staff that work in an enabling environment.

In tandem with the formulation of this strategic plan, we are developing a 'Basic Package of Essential Health Services for primary health care and hospitals'. We are also exploring new ways of enhancing effectiveness of the health system, such as the establishment of a Health Service Commission; a National Health Insurance Scheme; a new scheme of service whose aim is to improve retention of the right staff, in the right place and at the right time; and strengthening public-private partnerships, to name but a few.

For the implementation of this plan, the Ministry depends on the continued dedication of its entire staff and those of its partner organisations. The Ministry's goals for system-wide improvement require sustained provision of public funds as well as financial and technical assistance from development partners within the framework of the PRSP/II.

This Plan ushers in a new beginning towards a direction that the Ministry hopes will result in a sector-wide approach to managing and coordinating our individual and collective interventions. We welcome the support of our national and international development partners and gratefully acknowledge their contribution towards the development of our health sector.

As a policy document that we have jointly formulated, it is my sincere hope that it will henceforth become the single most important point of reference for design of service delivery programmes, resource mobilisation and a health financing framework as it embodies our dream for a better health care delivery system for all people of Sierra Leone.



Hon. Sheku Tejan Koroma  
Minister for Health and Sanitation  
October 2009

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## Acknowledgments

**T**his first National Health Sector Strategic Plan (NHSSP I) is a product of a long and complex process of intensive consultations, teamwork on specific assignments, detailed studies and information gathering. The process involved service providers, civil society groups, community members, the private sector, development partners and other stakeholders.

The Ministry is very grateful to everyone who contributed to the successful development of this strategic plan. Special thanks go to the members of the team that was tasked to write this document, using the health systems strengthening approach based on the 6 pillars of the health system. These building blocks were brought together and synthesised into the NHSSP I.

Most important has been the concerted effort to involve all directorates, programmes and other units within MoHS to ensure understanding and ownership of the plan. The Top Management Team (TMT) of the Ministry spearheaded the coordination and finalisation of this document.

The Government appreciates the financial and technical support given by the World Health Organisation (WHO) for the development of this plan. WHO and all our partners, have been helpful and encouraging in this attempt to chart a new course for Sierra Leone's health sector.

Finally, the Ministry expresses its appreciation to all other individuals and institutions who continue to contribute towards improving the health of the people of Sierra Leone. We hope that together we can achieve our Millennium Development Goals.



*Alhaji Dr. Kisito S. Daoh*  
Chief Medical Officer

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## Acronyms and abbreviations

AIDS	Acquired Immunodeficiency Syndrome
ABFP	Annual Budget Framework Paper
ACT	Artemisinin-based Combination Therapy
AHSPR	Annual Health Sector Performance Report
ANC	Ante Natal Care
ART	Anti-Retroviral Therapy
BCC	Behaviour Change Communication
BEmONC	Basic Emergency Obstetric and Neonatal Care
BPEHS	Basic Package of Essential Health Services
CCM	Country Coordinating Mechanism
CDHP	Comprehensive District Health Plan
CEDAW	Convention on the Elimination of All Forms of Discrimination Against Women
CHASL	Christian Health Association of Sierra Leone
CHC	Community Health Centre
CHO	Community Health Officer
CHP	Community Health Post
CMO	Chief Medical Officer
COMAHS	College of Medicine and Allied Health Sciences
CRC	Convention on the Rights of the Child
CSO	Civil Society Organisation
CT	Computer Tomography
DACO	Development Assistance Coordination Office
DFID	Department for International Development, UK
DHIS	District Health Information System
DHMT	District Health Management Team
DHS	Demographic Health Survey
DLGAs	District Local Government Authorities
DMO	District Medical Officer
DOTS	Directly Observed Treatment Strategy
DPC	Disease Prevention and Control
DPI	Directorate of Planning and Information
ECOWAS	Economic Community Of West African States
EHO	Environmental Health Officer
FBOs	Faith Based Organisations
FGM/C	Female Genital Mutilation/Cutting
FP	Family Planning
GAVI	Global Alliance for Vaccine and Immunisation
GDP	Gross Domestic Product
GNI	Gross National Income
GoSL	Government of Sierra Leone
HFS	Health Facility Survey
HIES	Household Income and Expenditure Survey
HIPC	Highly Indebted Poor Country
HIS	Health Information System
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
HMN	Health Metrics Network
HR	Human Resources
HRD	Human Resources Development
HRH	Human Resource for Health
HRIS	Human Resources Information System
HSCC	Health Sector Coordinating Committee
HSSP	Health Sector Strategic Plan
ICC	Inter-agency Coordination Committee
ICS	Integrated Child Survival
ICT	Information Communication Technology
ICU	Intensive Care Unit
IDSR	Integrated Disease Surveillance and Response
IDW	Integrated Data Warehouse
IEC	Information, Education and Communication
IHP	International Health Partnerships
IHR	International Health Regulations

I-PRSP	Interim Poverty Reduction Strategy Programme
IST	Inter-country Support Team
ITN	Insecticide Treated Net
LGA	Local Government Authorities
LTEF	Long Term Expenditure Framework
M&E	Monitoring and Evaluation
MCH	Maternal and Child Health
MCHP	Maternal Child Health Post
MDAs	Ministries, departments and agencies.
MDGs	Millennium Development Goals
MICS	Multi-Indicator Cluster Survey
MoHS	Ministry of Health and Sanitation
MOU	Memorandum Of Understanding
MTEF	Medium Term Expenditure Framework
NAS	National AIDS Secretariat
NASHI	National Social Health Insurance
NGO	Non-Governmental Organisation
NHA	National Health Accounts
NHPAC	National Health Policy Advisory Committee
HSCC	Health Sector Coordinating Committee
NHSSC	National Health Sector Steering Committee
NMP	National Medicine Policy
NPPU	National Pharmaceutical Procurement Unit
NSCSRH	National Steering Committee for Sexual, Reproductive and Child Health
OOP	Out Of Pocket Payment
PHC	Primary Health Care
PHU	Peripheral Health Units
PMTCT	Prevent Mother To Child Transmission
PPP	Public Private Partnership
PPTCT	Prevent Parent To Child Transmission
PRSP	Poverty Reduction Strategy Programme
QA	Quality Assurance
RCH	Reproductive and Child Health
SAM	Service Availability Mapping
SECHN	State Enrolled Community Health Nurse
SHI	Social Health Insurance
SLDHS	Sierra Leone Demographic Health survey
SLIHLCS	Sierra Leone integrated household living conditions survey
SLMDC	Sierra Leone Medical and Dental Council
SLNMB	Sierra Leone Nurses and Midwifery Board
SOP	Standard Operating Procedure
SSL	Statistics Sierra Leone
SWAp	Sector Wide Approach
SWOT	Strengths Weaknesses Opportunities Threats
TB	Tuberculosis
TBA	Traditional Birth Attendant
TTI	Transfusion Transmissible Infections
UBTS	Universal Blood Transfusion Safety
USL	University Of Sierra Leone
VAM	Vulnerable Analysis Mapping
VCT	Voluntary Counselling Testing
WAHO	West Africa Health Organization
WHO	World Health Organisation

# SECTION I: BACKGROUND AND RATIONALE

## Country Profile

The Republic of Sierra Leone is situated on the west coast of Africa, bordering the North Atlantic Ocean, between Guinea and Liberia. It 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. Its land area covers approximately 71,740 sq, km, about 28,000 sq miles.

The estimated population is approximately 5.5 million people, of which about 37 percent reside in urban areas. There are about 20 distinct language groups in Sierra Leone, reflecting its diversity of cultural traditions.

Administratively, the country is divided into four major areas, namely Northern, Southern, Eastern regions and the Western Area where the capital Freetown is located. The regions are divided further into twelve districts, which are in turn sub-divided into chiefdoms, governed by local paramount chiefs. With the recent devolution of services to local communities, the country has been divided into 19 local councils that have been further sub-divided into 392 wards. Each ward is headed by an elected councilor.

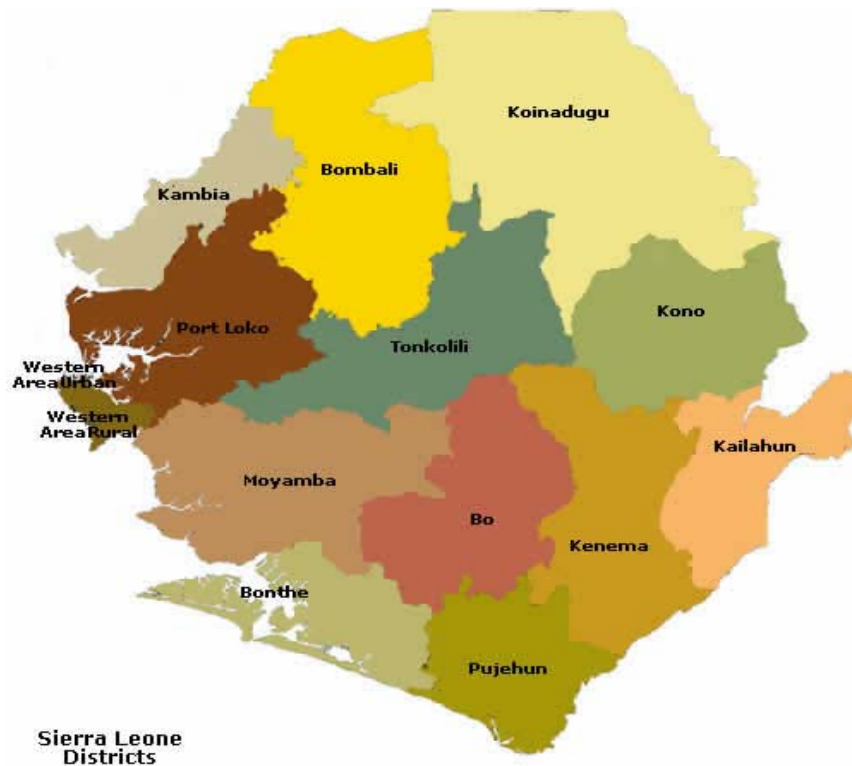


Figure 1: Map of Sierra Leone



## Socioeconomic context

Sierra Leone is classified by the UN as one of the least developed countries. In 2008, Sierra Leone ranked 178 out of 178 in the UN Human Development Index. It is one of nine countries in Africa whose income per capita has actually fallen compared to 1960s levels. About 70 % of Sierra Leoneans were living below the poverty line in 2007.<sup>1</sup>

The average national income (GNI) per person was US\$220 in 2006. In 2006 - 2007, real GDP growth was 11.2<sup>2</sup> with a recorded increment in recent years of the agricultural GDP. Post-war growth performance has indeed been robust – averaging 7.5% per year over the last 5 years.

Sierra Leone's immense potential to participate in the world's economy remains largely untapped. It has unexploited fertile lands on which to grow and harvest food; abundant seas with huge marine resources; it has mineral resources of tremendous value; and it has a large natural deep water port with which it can connect people and their produce to the outside world. The country is therefore denied much needed resources for even greater macro-economic growth.

The country's main economic sectors include mining, agriculture and fisheries. Mining of diamonds, bauxite and rutile is the major source of foreign exchange. Agriculture employs two-thirds of the country's population, the majority of which are involved in subsistence agriculture and contribute 51% of the country's GDP. Sierra Leone's manufacturing sector continues to develop and consists mainly of processing of raw materials and of light manufacturing for the domestic market. The service sector has been growing mainly due to a number of Nigerian banks entering the market. The economic prospects look good and living standards are expected to rise over time if the current stabilising macroeconomic policy is maintained.

Table 1: National picture of the population and the economy

<b>National Indicators</b>		
<b>1. Demography &amp; Population</b>	<b>Indicator</b>	<b>Additional Information</b>
Population (number)	5,484,670	2008 Projected Population
Population Under Age 15 (%)	41.7%	2004 Population Census
Urban Population (%)	36.7%	2004 Population Census
Population Growth Rate (%)	1.8%	2004 Population Census
Contraceptive Prevalence Rate (%)	6.7%	DHS 2008
Infant Mortality Rate (rate per 1,000)	89 /1,000	DHS 2008
Under-fives Mortality rate (rate per 1,000)	140 / 1,000	DHS 2008
Maternal Mortality Ratio (Rate per 100,000)	857 /100,000 live births	DHS, 2008
Life Expectancy – Male (years)	47.5 years	Census 2004
Life Expectancy – Female (years)	49.4 years	Census 2004
<b>2. Income &amp; the economy</b>	<b>Indicator</b>	<b>Additional information</b>
GDP Per Capita (\$)	US\$ 660	PRSP 2008
Population Below \$1 a Day (%)	About 70%	PRSP 2003
Country Income Classification	Low	
Government Allocation to Health	US\$ 18.4 million	2008 Budget Speech

Source: SLDHS, MoHS, PRSP

## Health status of the population

Sierra Leone has some of the poorest health indicators in the world, with life expectancy of 47 years, an infant mortality rate of 89 per 1,000 live births, an under-five mortality rate of 140 per 1,000 live births and a maternal mortality ratio of 857 per 100,000 births (SLDHS, 2008).

A Majority of the causes of illness and death in Sierra Leone are preventable, with most deaths attributable to nutritional deficiencies, pneumonia, anaemia, malaria, tuberculosis and now HIV/AIDS. Diarrhoeal diseases and acute respiratory infections are also major causes of out-patient attendance and illness in the country. The greatest burden of disease is on rural populations, and on females within the rural population. Women are also more likely to have to stop their economic activities due to illness than men.

Malaria remains the most common cause of illness and death in the country. Over 24% of children under five had malaria in the two weeks preceding the latest household survey in 2008 (SLDHS, 2008). The survey also reported that 26% of under-fives and 27% of pregnant women slept under ITNs, while only 15% of children with fever received an anti-malarial within 24 hours of onset of symptoms, and less than 2% of under-fives received the drug within 24 hours.

The prevalence of HIV in the general population increased from 0.9% in 2002 to 1.53% in 2005 and appears to have stagnated. The SLDHS 2008 survey reported a HIV prevalence of 1.5% in the general population. This may be related to the marked improvement in the HIV/AIDS programme implementation. For example, by the end of 2005 there were only 20 VCT sites in the country but by the end of 2008 a total of 369 sites had been established. In 2005 there were only 18 sites providing PMTCT services nationwide but by the end of 2008 PMTCT sites had increased to 326 (NAS Programme Report 2008).

According to SLDHS (2008), more than 85% of pregnant women attended ante-natal care services at least once in their most recent pregnancy, but only 42% actually delivered in a health facility. Insufficient numbers of health facilities are equipped and staffed to acceptable standards to provide emergency obstetric care. There is also no functional referral system in many districts, leading to delays in provision of comprehensive emergency obstetric care.

Children in Sierra Leone are generally malnourished. In 2008, 21% of children under age 5 were found to be underweight or too thin for their age, 36% were stunted or too short for their age and 10% were wasted or too thin for their height (SLDHS 2008). Children in rural areas are more likely to be stunted and wasted than children in urban areas.

Availability of clean water and safe sanitation is a major factor affecting the health status of the population. Almost half of the population have no access to safe drinking water, and only 13% have access to improved non-shared sanitation facilities. The situation is worse in rural areas than in urban communities, with rural communities having 34% of safe water access compared to coverage of 84% for urban communities.

Health care costs remain very high in Sierra Leone, resulting in poor utilization (on average 0.5 visits per person per year). Out of pocket expenses of about 70% remain among the highest in Africa (NHA Report, 2007). A review commissioned by the Ministry in 2007 established that even modest charges tended to exclude over 50% of the population from seeking health care and exemption systems in current use do not seem to work (Health Financing Assessment, Oxford Policy Management 2008). Based on analysis of 50 developing countries, the Health Financing Group (Abuja Declaration, 2005) recommends that government increases its per capita expenditure on Health to 15% of public expenditure in order to reverse its declining per-capita expenditure on health. Implementation of free health care in all peripheral health facilities and district hospitals is recommended as the practical policy option that will address the health of the poor majority. In addition, investment in improving the quality of services is critical. A summary of the sector indicator trends is as shown in table 2 below.

Table 2: Trends in health sector indicators

Key indicators	2000 (MICS2)	2005 (MICS3)	SLDHS 2008
Infant mortality rate (per 1000)	170	170	89
Under-five mortality rate (per 1000)	286	286	140
Maternal Mortality Ratio (per 100,000)	1800	1300	857
Underweight prevalence (2 SD ≤ / 3 SD ≤)		31 / 9	21.1 / 3.5%
Stunting prevalence (2 SD ≤ / 3 SD ≤)	34 / 16	40 / 20	36.4 / 20.6%
Wasting prevalence (2 SD ≤ / 3 SD ≤)			10.2 / 4.2%
Exclusive breastfeeding rate (0-5 months)	2	8	11.20%
DPT immunization coverage	46	63	54.60%
Fully immunized children	39	54	30.20%
Under-fives sleeping under insecticide-treated nets	2	5	25.80%
Ant-malarial treatment (under-fives):			
• Within 24 hours of onset of symptoms	--	45	15.10%
• Any time	61	52	30.10%
Use of improved drinking water sources			50.30%
At least 2 antenatal visits			74.30%
Skilled attendant at delivery	42	43	42.40%
Institutional deliveries	--	19	24.60%
Net primary school attendance rate (%)	42	69	66.20%
Gender parity index: ratio of girls : boys (primary; secondary)	--	1.01: 0.78	1.02 : 0.68
Comprehensive knowledge about HIV prevention among young people (female: male)	--	18	17.2 : 27.6%

Sources: MICS 2000, MICS 2005 and Sierra Leone Demographic and Health Survey 2008.

### Health Services Profile

The country's health service delivery system is pluralistic. Government, religious missions, local and international NGOs and the private sector all provide services (see table 2). There are public, private for profit, private non-profit and traditional medicine practices. The private sector is underdeveloped compared to countries in the sub-region such as Ghana and involves mainly curative care for inpatients and outpatients on a fee-for-service basis. Private health facilities operate under the authority of individual owners and/or boards of directors, mainly in urban areas. The non-poor tend to use private health facilities more often than the poor. Traditional healers and Traditional Birth Attendants (TBAs) are reported to be providing a significant amount of health care, with TBAs attending to almost 90% of the deliveries at the community level.

The Government had passed the Hospital Boards Act of 2003 and the Local Government Act of 2004 in the context of the civil service reforms. Both laws seek to devolve responsibility and accountability of some government functions to the local level for effectiveness and efficiency of service delivery.

The health service organization is based on the primary health care concept which was started in the 1980s. The public health delivery system comprises three levels: (a) peripheral health units (community health centres, community health posts, and maternal and child health posts) for first line primary health care; (b) district hospitals for secondary care; and (c) regional/national hospitals for tertiary care.

As part of the public sector reforms started in 2003, the Ministry of Health and Sanitation is now organised into two main divisions at the central level: medical services and management services.

District health services form the core component of primary health care. They are composed of a network of peripheral health units (PHUs), the district hospital and the District Health Management

Team (DHMT). The PHUs are the first line health services, and are further sub-classified into three levels. The maternal and child health posts (MCHPs) are situated at village level for populations of less than 5000. They are staffed by MCH Aides who are trained to provide numerous services: antenatal care, supervised deliveries, postnatal care, family planning, growth monitoring and promotion for under-five children, immunisation, health education, management of minor ailments, and referral of cases to the next level. The MCH Aides are supported by community health workers (TBAs, Community volunteers, etc).

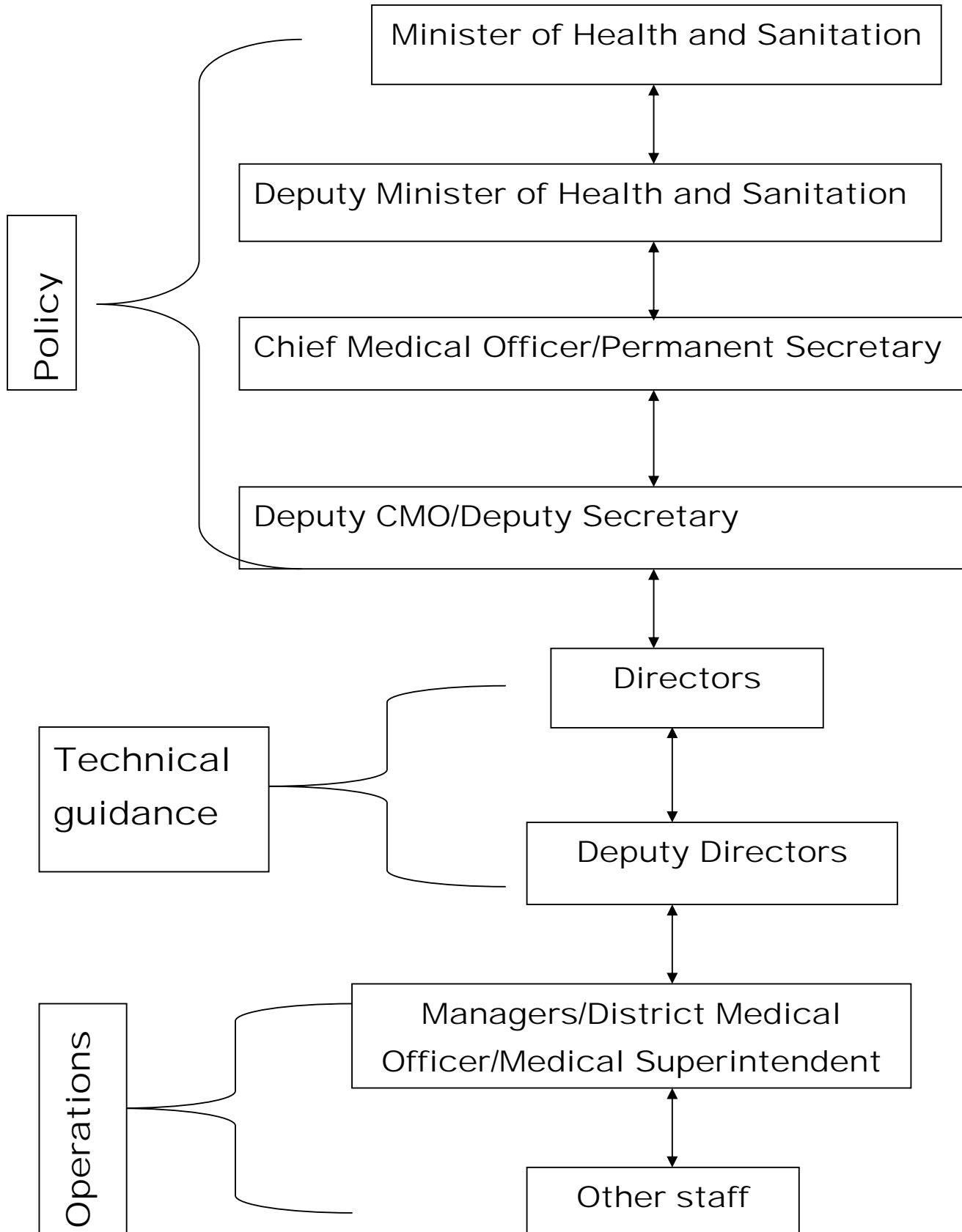
Community Health Posts (CHPs) are at small town level with population between 5,000 and 10,000 and are staffed by State Enrolled Community Health Nurses (SECHNs) and MCH Aides. They provide the same types of services that are provided at the MCHPs but they also include prevention and control of communicable diseases and rehabilitation. They refer more complicated cases to the Community Health Centres (CHCs) which are located at Chiefdom level, usually covering a population ranging from 10,000 to 20,000 and staffed with a community health officer (CHO), SECHN, MCH Aides, an epidemiological disease control assistant and an environmental health assistant. They provide all the services provided at the CHP level in addition to environmental sanitation and supervise the CHPs and MCHPs within the Chiefdom.

The district hospital is a secondary level facility providing back-stopping for the PHUs. It provides the following services: outpatient services for referred cases from PHUs and the population living within its immediate environs, inpatient and diagnostic services, management of accidents and emergencies, and technical support to PHUs. The District Health Management Team (DHMT) is responsible for the overall planning, implementation, coordination, monitoring and evaluation of the district health services under the leadership of the District Medical Officer (DMO). Other members include the medical officer in charge of the district hospital and scheduled officers for various programs and units.

Table 3: Distribution of health facilities in Sierra Leone

District	Government					Mission		Private		NGO	Total
	CHC	CHP	MCHP	Clinics	Hospital	Hospital	Clinic	Hospital	Clinic	Clinic	
Bo	23	12	50	1	1	1	6	0	11	3	108
Bombali	16	20	49	0	2	2	3	1	3	0	96
Bonthe	9	9	20	0	2	1	2	0	0	2	45
Kailahun	9	34	12	0	2	1	1	0	0	0	59
Kambia	11	8	31	0	1	0	2	0	0	1	54
Kenema	21	17	63	1	2	1	2	0	3	1	111
Koinadugu	12	6	33	1	1	0	0	0	0	1	54
Kono	11	15	46	0	1	0	1	0	4	4	82
Moyamba	12	6	56	1	2	0	5	0	0	1	83
Port Loko	11	21	55	0	2	1	4	0	1	0	95
Pujehun	14	10	25	0	1	0	0	0	0	0	50
Tonkolili	9	8	65	0	1	2	1	0	0	1	87
Western Area	20	10	15	7	12	2	11	2	23	3	105
<b>Total</b>	<b>178</b>	<b>176</b>	<b>520</b>	<b>11</b>	<b>30</b>	<b>11</b>	<b>38</b>	<b>2</b>	<b>45</b>	<b>17</b>	<b>1028</b>

Figure 2: Leadership structure for NHSSP



### **Health Service Reforms**

Since the May 2004 local elections restored local government, decentralisation and devolution of authority have progressed rapidly with the aim of bringing service delivery and its management closer to the beneficiaries. The health sector was among the first three sectors that were scheduled for decentralization of services to local councils from 2004 to 2008. The health sector was, in fact, the only sector that devolved all the services as scheduled. The process started with devolution of primary health care services, followed by district hospitals in 2008.

Since the end of 2008, the 19 local councils (12 district councils, 5 town councils, the Freetown City Council and the Western Area Rural Council) are now responsible for managing the delivery of both primary and secondary health care services.

In the health sector, the process of decentralization has been undertaken in addition to a variety of other reforms, including the introduction of user fees and experimentation with hospital autonomy (Hospital Boards Act 2003).

Starting in the third quarter of 2005, tied grants amounting to about a quarter of the national health budget were transferred to the local councils. These grants are supposed to cover activities such as vaccination campaigns, epidemic control, infrastructure improvements and expansion, and the operational expenses of the District Health Management Team (DHMT). In practice, many local councils turn these grants over to the DHMT which plans the activities and manages the funds with varying degrees of supervision from the local council.<sup>4</sup>

With the devolution of services, the core functions of the MoHS remain as "Policy formulation; standards setting and quality assurance; resource mobilization; capacity development and technical support; provision of nationally coordinated services, e.g. epidemic control; co-ordination of health services; monitoring and evaluation of the overall sector performance and training."

The responsibilities of the districts are implementation of national health policies; planning and management of district health services; provision of disease prevention, health promotion, curative and rehabilitative services; health education; ensuring provision of safe water and environmental sanitation; health data collection, management, interpretation, dissemination and utilisation.

## **Poverty Reduction Strategic Plans (PRSP I & II) of Sierra Leone**

Sierra Leone is among the countries that endorsed the commitment to sustaining development and eliminating poverty as the highest national priority at the Millennium Summit in 2000 and thus embraces the Millennium Development Goals (MDGs) as a framework for measuring development progress. The MDGs and other internationally agreed targets have thus been incorporated as national targets.

National commitments to achieving the health MDGs were key priorities identified in PRSP I and II of Sierra Leone as part of the human development pillars. This commitment has been made in recognition of the fact that health contributes to economic development by increasing worker productivity and lengthening the expected working life of adult Sierra Leoneans. The strategic priorities identified for the health sector in PRSP II are (i) provision of integrated reproductive and child health services; (ii) improving nutrition; (iii) control of communicable diseases; (iv) controlling non-communicable diseases; (v) health promotion (water, sanitation and hygiene); (vi) provision of infrastructure for primary, secondary and tertiary health facilities; (vii) HR development and management; (viii) strengthening health care financing and (ix) development of a health information system. These national policy priorities are well linked to internationally endorsed strategies such as the Ouagadougou Declaration on Primary Health Care and Health Systems in Africa: Achieving Better Health for Africa in the New Millennium 2008

## **Purpose of the NHSSP**

The Sierra Leone Constitution (1991), The National Health Policy 2002, The Public Health Act 1960, the Local Government Act (2004), The Medical and Dental Act, The Pharmacy Board Act, The National Poverty Eradication Plan and the “An Agenda for Change”, 2008-2012, provide the policy basis for Sierra Leone’s first National Health Sector Strategic Plan 2010-2015 (NHSSP). The main aim of the NHSSP is the fulfilment of the health sector’s contribution to PRSP II, the Ouagadougou Declaration and the MDG goals.

The NHSSP has been developed to provide a common strategic framework for the plan period covering 1st January 2010 to 31st December 2015; a framework that will guide ALL interventions by ALL parties at ALL levels of the national health system in Sierra Leone. Specifically, the NHSSP forms the basis for:

- a. Developing and implementing strategic and operational plans of central MoHS directorates, at the districts and in all hospitals.
- b. Formalising coordination mechanisms and guiding participation of all stakeholders in health development in Sierra Leone.
- c. Developing the long term expenditure framework (LTEF), medium term expenditure framework (MTEF) and the annual budget framework paper (ABFP) for the health sector.

## **NHSSP development process**

The NHSSP has been developed through an intensive and interactive process that involved all key stakeholders in health development in Sierra Leone. The process commenced in the last quarter of 2008 and was completed in September 2009. The process was coordinated by a specially constituted team based at the Directorate of Planning & Information of the MoHS and was under the leadership of the Chief Medical Officer. Six working groups were constituted to formulate needs based strategies, the building blocks of national health systems as provided in the WHO Framework for Health System Strengthening, 2007, namely: governance and leadership, human resources for health, healthcare financing, medical products and technologies and health information systems. This was done through an interactive process of consultations with stakeholders. A series of stakeholder workshops were also conducted that culminated in validation of the final draft in September 2009.

## SECTION II: NHSSP STRATEGIC DIRECTION

The vision, mission and goal are derived from the National Health Policy and are aimed at contributing to the achievement of the goals of the PRSP II (An “Agenda for Change”), the Ouagadougou Declaration and the MDGs.

### **Vision**

Functional national health systems delivering efficient, high quality health care services that are accessible, equitable and affordable for everybody in Sierra Leone.

### **Mission**

To contribute to socio-economic development by promoting health and ensuring access to quality health, population and nutrition services by the population of Sierra Leone through effectively functioning national health systems.

### **Policy Objectives**

Health care delivery has always been based on the principles and values of Primary Health Care. These are still valid. However, as the health system in Sierra Leone remains comparatively weak, there is a need to exploit the current opinion that health is a contributor to national development and shift towards innovative evidence-based ways of coping. This change in focus will provide new impetus, energy and flexibility to the Ministry of Health and Sanitation in achieving the following Goal:

### **Goal**

The Goal of the NHSSP is to reduce inequalities and improve the health of the people, especially mothers and children, through strengthening national health systems to enhance health related outcomes and impact indicators.

This goal translates the overall mission and vision of the National Health Policy into policy objectives that are in line with the “Agenda for Change”, the Ouagadougou Declaration and the MDGs.

The **general objective** is to strengthen the functions of the national health system of Sierra Leone so as to improve the following performance criteria: -

1. Access to health services (availability, utilisation and timeliness)
2. Quality of health services (safety, efficacy and integration)
3. Equity in health services (disadvantaged groups)
4. Efficiency of service delivery (value for resources)
5. Inclusiveness (partnerships)

The inputs required to influence the above performance criteria form the basis for the **specific objectives** of the NHSSP. These inputs correspond to the national health priority areas identified in the “Agenda for Change” document, highlighted above. The objectives for the NHSSP are thus given under the following 6 building blocks discussed in subsequent chapters of the Plan.

1. Governance
2. Services delivery



3. Human Resources
4. Health Financing
5. Medical Products and Technologies
6. Health Information

The key intervention areas in the Basic Package of Essential Services (BPEHS), under the appropriate leadership and management of the MoHS, will provide the operational dimensions of the policy objectives. This integrated BPEHS approach aims at bringing all health programmes (curative, prevention, promotion and rehabilitation) and partners together, so as to enhance synergy and complementarities, thus improving efficiency and effectiveness of health services delivery. The BPEHS provides a comprehensive list of services to be offered at five levels of the health system, namely: the community level, the maternal and child post, the community health post, the community health centre and the district hospital.

The criteria for defining the Sierra Leonean BPEHS are: (i) services which will have the greatest impact on the major health problems (ii) services that are cost-effective in addressing the problems faced by many people (iii) services which can be delivered to give equal access to both rural and urban populations with a special emphasis on community based health interventions.

#### **Core Values**

- Right to health
- Equity
- Pro-poor
- Cultural sensitivity
- Solidarity
- Friendliness

#### **Services Values**

- Strong districts
- Good quality services - well managed, sensibly integrated, available, accessible, accountable, affordable and sustainable
- Strategic planning and priority setting based on achieving agreed Millennium Development Goals (MDGs) and reducing poverty.
- Quality improvement and clinical audit

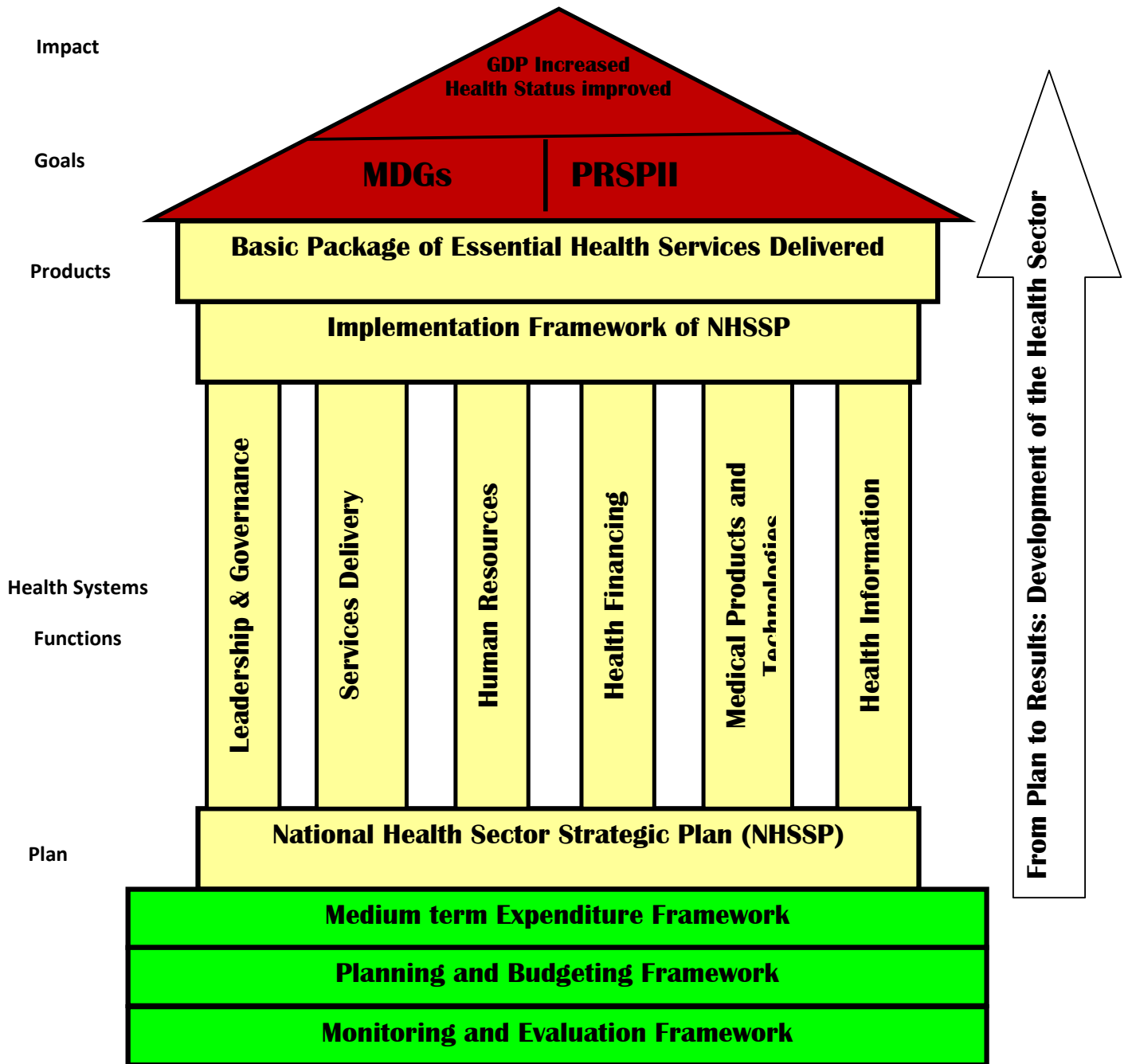
#### **Working Principles**

- Accountable central governance and provision of effective and efficient local health services composed of a comprehensive and integrated range of primary and secondary health care services across the nation (with a corresponding reduction in vertical, centrally-driven individual programmes).

- Devolution of decision making and priority setting to local councils
- Active promotion of healthy lifestyles and health-seeking behaviour among the population
- Priority emphasis on prevention and control of communicable and selected chronic and non-communicable diseases, as well as on Trauma and related injury, Reproductive and Child Health, Adolescent health, and the well being and health of vulnerable groups
- Priority emphasis on the provision of a basic package of essential health services for mothers and children
- Affirmative action on the heightened needs of all vulnerable groups – children, women, the poor, the aged, and those from rural and remote areas
- Capacity building, including human resource development
- Appropriate deployment and distribution of the health work force
- A genuine desire to listen to what communities say and to encourage their contribution
- Increased and more diverse public-private sector collaboration
- Evidence-based, quality interventions based on considered use of reliable health information.
- Implementation of health financing systems that promote equitable access to priority health services

The values, goals and working principles noted above provide the basis for this health sector strategic plan.

Figure 3: NHSSP impact framework



# SECTION III: SIERRA LEONE HEALTH SYSTEM PILLARS

## Chapter 1: Leadership and governance

### **Current status and situation analysis**

Governance in health addresses the actors involved in governing the health sector (MoHS and stakeholders), what needs to be governed and, to a limited extent, how it will be done. The MoHS has multiple leadership responsibilities, including policy formulation, setting standards and regulations, collaboration and coalition building, monitoring and oversight and resource mobilisation. In this regard, the MoHS is expected to provide leadership and to coordinate the efforts of all health care providers and financiers at all levels of care. It is therefore necessary to review the MoHS structure at all levels to reflect this enhanced role, especially critical in the on-going decentralisation process, and the necessary capacity be developed during the plan period.

In relation to **supervision and oversight** functions, the MoHS has a well established oversight structure from national to the district level that works within the framework of parliamentary and district oversight committees described in the background country profile above. The health sector has structured its coordination mechanism to the government structure, including a Health Sector Coordinating Committee (HSCC) at the national level and a district partner's committee that meets monthly under the leadership of the DMO.

In terms of **policy guidance**, the MOHS has developed several policies, including the National Health Policy, Reproductive Health Policy, Child Health Policy and various other policies aimed at guiding delivery of services. In addition to these policies, Government also enacted the Local Council Act (2004), and the Hospital Boards Act (2003) to address the management of all hospitals nationwide, as a means of enhancing the participation in and ownership of the health care system by the local councils and their communities. With the introduction of separate laws to guide the decentralisation process it has become evident that there is a need to clarify roles and responsibilities between the councils and the hospital boards, in order to improve on implementation efficiency.

With regards to **health regulations**, the MoHS has developed and established regulatory statutory bodies, including the Sierra Leone Medical and Dental Council (SLMDC), the Sierra Leone Nurses and Midwifery Board (SLNMB), the International Health Regulation (2005), and the Public Health Act, to name but a few.

Although some national and district sector coordination structures with a membership consisting of public, private and developmental partners have been established, their roles, responsibilities and functions are yet to be formulated and institutionalised in order to enable them become more effective. There is also a need to establish community based structures under the leadership of the districts to coordinate community based services

**Fiduciary status:** The MoHS runs two parallel financial management systems: a system based on the GoSL accounting procedures for government resources and the other based on donor-specific-guidelines, partly necessitated by the rigorous monitoring of performance and proper tracking of donor funds.

The MoHS currently uses two major procurement systems, namely; the World Bank (The Bank) procedures and the Government of Sierra Leone procedures as prescribed by the Public Procurement Act (PPA) 2004 depending on the activity financier. The Sierra Leone government policy is to channel all donor funds through the existing financial and procurement systems to fund sector strategic plans, progressively reducing standalone

donor projects. This will require development of agreed common management arrangements within the context of a sector-wide approach.

### ***Key Issues and Challenges***

- Existing health regulations are outdated.
- A weak mechanism for monitoring services provided in the sector.
- The established structures for financial management and procurement have insufficient capacity to manage funds from all sources.
- Weak MoHS stewardship/leadership
- Weak sector coordination structures and arrangements at all levels.
- Weak public private partnership (PPP) in the provision of comprehensive integrated health services
- Weak mechanism for public accountability.

### ***Policy Statement***

The Ministry of Health and Sanitation management structures will respond to the Government of Sierra Leone's commitment to develop a transparent and accountable public sector.

### ***Strategic Objectives, Actions and Targets***

#### **Objective 1:**

- To review the legal framework and provide the necessary capacities for implementation.
- All health Acts and legislations revised, adopted disseminated by the end of 2011.
- Resources required for effective functioning of statutory/regulatory bodies defined.
- A monitoring mechanism for progress on the enforcement of regulations (including the IHR 2005) established in the MoHS by 2012.

#### **Objective 2:**

- To strengthen capacities of senior health managers at national and district levels.
- Develop operations manual specifying roles and responsibilities of directors, managers, officers and key members of staff by end of 2010
- Time-bound training programme (with costs worked out) on leadership and management at all levels, developed and adopted at HSCC by mid 2011.

#### **Objective 3:**

- To establish a result based management system for management contracting, performance reviews, staff evaluation and system's improvement initiatives.
- Develop clear-cut line of communications between central and district levels and vice versa by end of 2010.
- Strengthen management capacities of all hospitals through training and the provision of appropriate supporting environments by 2011.
- Support the development of strategic and development plans and promote active resource mobilisation by all hospitals in 2011
- Provide support to hospital boards to operate according to guidelines.

#### **Objective 4:**

- To provide a viable oversight, sector planning, monitoring & supervision system from national to district levels.
- Tools for sector-wide planning, supervision and monitoring finalised and adopted by HSCC by end August 2010.

- By end 2011, consolidated annual plan (consolidated from comprehensive district-wide plans inclusive of all actors) jointly developed and launched at the health planning summit.
- Joint Review Mission, based on Annual Performance Review Report, conducted and launched at health review summit.
- Joint planning and review cycles established incrementally with adequate feedback mechanisms at all levels as per the timeframes in figure 8.

**Objective 5:**

- To establish dynamic interactions between health care providers and consumers with the view to improving the quality, accountability and responsiveness of services by 2013
- Guidelines on publishing information on the activities of the health sector developed by 2011
- Mechanisms for monitoring/addressing medical mal-practices established by 2011 and progress tracked through annual performance review reports.

**Objective 6:**

- To strengthen coordination, collaboration, alignment and harmonisation with development partners, implementing agencies (NGOs, CSO, FBOs and private-for-profit) and MDAs
- Develop and adopt HSCC ToRs by February 2010.
- Develop and adopt Sierra Leone partnership compact by July 2010.
- Develop monitoring framework for partnership compact as part of sector plan by end 2010.
- Strengthen capacity of coordinating structures at district levels as per agreed programme, including development of ToRs and operational guidelines. Adopt programme by end 2010.
- Develop and adopt resource allocation criteria by mid 2011.
- Develop & disseminate annual health public expenditure review by end 2011 and public expenditure tracking system by end 2013.
- Develop Joint Funding Arrangement based on sector compact by end 2011.
- Develop a cohesive Public-Private Partnership policy and guidelines for sustainable health care based on sector compact by end of 2011.

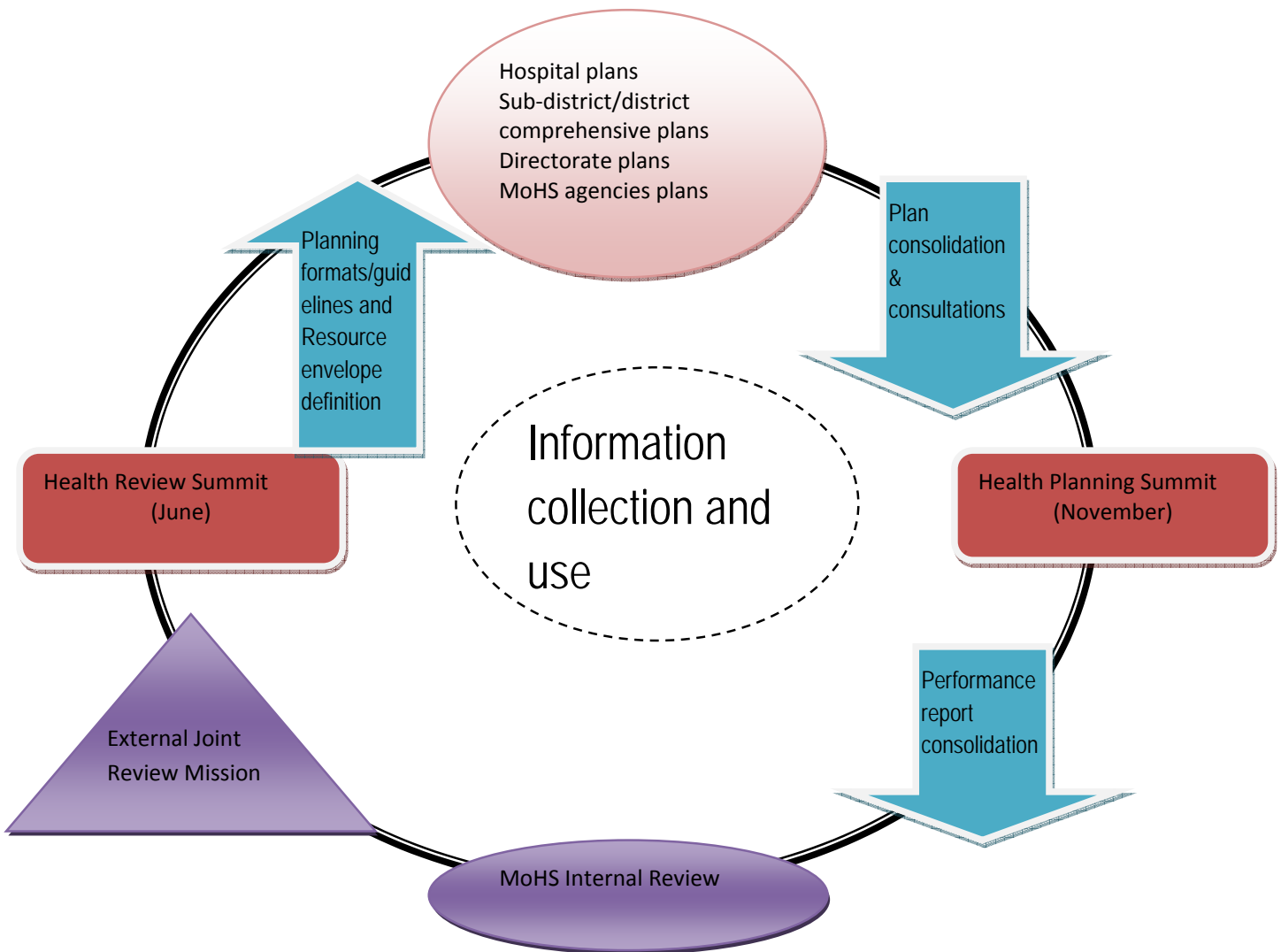
**Objective 7:**

- To develop a sector-wide coordination mechanism for ensuring that all funding for the sector supports a single policy and expenditure programme, under government leadership, and adopting common approaches across the sector.
- Develop a common national joint coordination mechanism that is fully aligned with the national health policy and strategic plan.
- Develop common management arrangement approaches across the sector by all partners, covering procurement, disbursement and accounting of funds, and joint reviews of health sector performance in line with the Paris Declaration on Aid Effectiveness.

### ***Expected outputs/outcomes***

- Improved health regulations.
- Strengthened MoHS stewardship/leadership role
- Coordination and partnership structures at all levels strengthened and functional.
- Joint annual planning cycle established.
- Joint review cycle established
- Effective financial management and procurement systems established within the Ministry.
- Performance based management system established.
- Strengthened mechanism for effective Public Private Partnership.

Figure 4: Annual NHSSP planning and monitoring cycle





## Chapter 2: Service delivery

### **Current status and situation analysis**

Health service delivery remains a key challenge in post war Sierra Leone, the ten year war which ended in 2002 having seriously damaged the health system. This situation continues to undermine standards, availability and accessibility of services provided.

Qualitative perceptions from rural communities reveal that physical distance to health facilities presents a major access barrier to care. The existing functional health facilities are inadequate and inequitably distributed nationally, (see table 2) thus prompting the Ministry to increase the number of health facilities in order to bring them closer to the beneficiaries. They are also poorly equipped to provide quality health care service.

Service utilisation and uptake of available low-cost, high impact interventions are low, as demonstrated by high drop-out rates of PENTA3 and measles vaccinations. General population utilisation rates of health services in Sierra Leone is estimated at 0.5 contacts per capita per annum, this means that half the population attend a health facility once every year. The first visit coverage for antenatal care is 87% as compared to the third recommended ANC visit which remains low at 56% and is almost commensurate to institutional delivery coverage which remains low at 42%.

There is a critical shortage of skilled health staff, the impact of which is worsened by the total absence of skilled staff in PHUs in some cases, thus compromising the quality of care provided. Basic necessities and amenities in the form of transportation and accommodation remain inadequate. This is compounded by low remuneration that has negatively affected staff morale. Human resource development is a major constraint due to irregular basic and in-service training.

Laboratory and blood transfusion services, which were damaged during the rebel war, have been gradually re-established in the districts, albeit without a supportive national public health laboratory. A blood transfusion service has been established, but continues to have inadequate facilities and staff to respond to current challenges which is the key focus of the soon to be completed Policy

### ***Issues and challenges***

- Poor access to health services, including specialised medical care especially for poor and vulnerable people.
- Low quality of available health services
- Inequities in accessing health services and low utilisation of essential services.
- National standards for basic services and capacity standards for health facilities by level of care have not been defined
- Inadequate provision of drugs, equipments and other supplies.
- Inadequate outreach and referral services
- Minimal involvement of communities in delivery of health services.
- Weak community and home based approach to service delivery
- Inadequate blood transfusion service.
- Inadequate laboratory service

### ***Policy Statement***

The Government remains committed to PHC approach with an emphasis on primary care services and prevention as cost-effective strategies for the delivery of health care.

## **Strategic objectives, actions and targets**

### **Strategic Objective 1:**

- To increase the utilisation of health services especially for mothers and children, the poor and other vulnerable groups from 0.5 contacts per person per year to at least 3 contacts per person per year by 2015.
- Construct/re-construct/rehabilitate health facilities in accordance with the national guidelines (hospital/clinic structures, staff quarters, water supply, toilets, medical waste disposal facilities)
- Provide adequate and appropriate drugs, equipment and medical supplies (ensure that by 2011, 60% of all facilities have at least 80% of identified tracer essential drugs in stock all year round).
- Deploy adequate numbers of health professionals to ensure that 70% of facilities have the full complement of skilled staff by 2013.
- Finalise and disseminate the health transport policy and guidelines, with the participation of all stakeholders, by 2011
- Provide adequate and equipped hospital and community ambulances to all districts by 2011.
- Provide integrated comprehensive static and outreach/mobile health services
- Develop a communication strategy for the health sector to provide key health promotion messages by 2012.

### **Objective 2:**

- To improve quality of health services
- Strengthen the delivery of quality primary and general care through the implementation of the BPEHS
- Develop and provide service standards, technical tools, guidelines and protocols
- Establish coordinating structures for quality of service delivery in all hospital and DHMT by 2011
- Standards, guidelines and other tools for priority service areas made available and are being used for all services in 50% of all facilities by 2013
- Provide high quality pre-service, in-service training and continuing education.
- Provide specialised diagnostic facilities in secondary and tertiary hospitals by 2012
- Standard packages for diagnostic and radiology services specified and made available to 60% of all health centres and hospitals by 2015
- Provide quality assurance framework and clinical guidelines for hospitals and other health service delivery points by 2012.
- Provide quality assurance framework for, staff development, supplies and maintenance programs by 2013.
- Provide support for professional bodies by 2015.
- Conduct joint supportive supervision as per programme developed by end 2010.
- Establish Disaster Management/Emergency Preparedness Offices at national and district levels by end of 2011.

### **Objective 3:**

To strengthen management capacities of district health services

- Conduct regular meetings
- Senior management staff at national and district level share experiences with selected countries in the sub-region on health services management by 2010

**Objective 4:**

- To strengthen the delivery of quality specialised, advanced and emergency care in secondary and tertiary health facilities.
- Upgrade human, infrastructural and logistics capacities of referral health facilities by 2013.
- National guidelines on patient referral formulated, based on comprehensive assessment of the referral system in the country, by 2010.
- Referral system strengthened nationwide, through the implementation of the guidelines, by 2012.
- Specialised outreach services provided to secondary and primary health care levels by 2012
- Appropriately skilled and motivated medical professionals in various disciplines provided for at least 50% of hospitals by 2013

**Objective 5:**

- To strengthen community based health services
- Evidence-based strategy for re-vitalisation of community based interventions defined by end 2010
- Community governance and operational structures strengthened by end 2011
- Community based health information systems strengthened by end 2012

**Objective 6:**

- To develop a comprehensive national health laboratory services policy
- National laboratory services policy guidelines developed and disseminated by 2011.

**Objective 7:**

- To build HR capacities in laboratory services delivery at national, district and peripheral levels
- Investment in the training of laboratory technicians significantly increased to 50% of the current annual production by 2013.
- In-service training of relevant staff at all levels to improve laboratory services (new technologies and scaling up interventions – PMTCT, VCT etc)

**Objective 8:**

- To establish a sustainable laboratory supplies system as part of the Essential Medicines and Health supplies management, which that will ensure steady availability of laboratory equipment, reagents and supplies at all levels.
- Conduct a needs assessment and develop a consolidated plan for laboratory infrastructure and equipment to allow for the necessary testing at each level
- Laboratory equipments and reagents be given the desired attention in National Medical Stores stocking as part of the procurement and management of essential medicines and supplies
- Building capacity for laboratory reagents and supplies quantification, procurement and management at all levels

**Objective 9:**

- To establish an effective management structure in the MoHS to provide stewardship, coordination and management of laboratory services
- Establishment of appropriate coordination and management within MoHS, at the regional level and in districts to assure effective coordination and supervision of laboratory services at all levels

**Objective 10:**

- To expand the blood transfusion infrastructure to operate adequately within a decentralised health care delivery system.
- Review and update the National Blood Transfusion Policy and Plan.
- Reinforce the human resource and technical capacities of the national blood transfusion services.
- Strengthen the national blood bank and establish a blood bank in each district by 2015 through upgrading and construction where necessary. With expansion of the services, the district blood banks will require adequate laboratory, blood donation and administrative space.

**Objective 11:**

- To increase the annual blood collection necessary to meet the blood requirements of all patients in the hospitals throughout the country
- Advocacy for increased blood donation mobilisation of stakeholders
- Improved strategies for blood donor selection, education, counselling and care, and retention of safe donors for repeated donations
- Adequate supplies for blood collection and storage

**Objective 12:**

- To test all blood for Transfusion Transmissible Infections (TTIs) and operate an effective, nation-wide Quality Assurance programme that ensures security of the entire blood transfusion process
- The required capacities for Laboratory competence built by 2012
- Strengthen QA programme by recruiting appropriate staff, reviewing standards and developing the standards towards accreditation of UBTS and ensuring continuous audit of blood transfusion activities

**Objective 13:**

- To ensure continuous education and training in blood safety
- Continuous education and training in the use of blood and blood products for medical staff
- Prospective donors and community educated on blood safety

**Objective 14:**

- To generate information and build a database on the status of medical equipment in the health facilities
- A needs assessment and database for medical imaging equipment finalised by 2010

**Objective 15:**

- To procure, install and utilise appropriate medical and diagnostic equipment within the health facilities
- Procure and install new equipment required based on the assessed needs (see table 9 below).
- Ensure availability of consumables for the medical equipment as part of the procurement of essential medicines and health supplies

**Objective 16:**

- Recruit and train appropriate staff (technical and maintenance) at the Regional Medical Equipment Maintenance Workshops
- Recruitment and training for both technical and maintenance staff as required and in accordance with the HRH Plan

Table 4: Targets for equipping health facilities

Targets by the end of 2015	Equipment
National Referral hospitals	<ul style="list-style-type: none"> <li>- CT Scan Machine</li> <li>- Ultrasound Scan Machine</li> <li>- X-ray machine</li> <li>- Radiotherapy in selected centres</li> </ul>
General Hospitals	<ul style="list-style-type: none"> <li>- X-Ray Machines</li> <li>- Ultrasound Scan</li> <li>- Radiotherapy</li> </ul>

### **Expected outputs/outcomes**

- Increased access to quality health services, including specialised medical services.
- Increased coverage and access to essential health services, especially for children, the poor and vulnerable groups.
- Increased utilisation of essential health services
- Improved delivery of primary care and specialised services
- Effective referral system established and operational
- The BPEHS used as the basis for delivering health services in the country
- Increased involvement of communities in the management of health service delivery
- Existing policies and guidelines reviewed and updated
- Blood transfusion services established in all district hospitals
- Laboratory services strengthened in terms of staff, equipment and reagents
- An effective quality management system established for all laboratories.

## Chapter 3: Human resources for health

### Current status and situation analysis

Availability of appropriately trained human resources is an important pre-requisite for the delivery of the BPEHS in Sierra Leone. Sierra Leone, however, is experiencing a major crisis in responding to the heavy disease burden which, as is the case with most countries in the region, is exerting a lot of strain on the already overwhelmed health system. This is due to staff shortages ranging from 40 to 100% of required staff, as seen in table 5 below, in spite of a current strength of 6,030 health workers.

The aforementioned shortages are further aggravated by mal-distribution of staff, as seen in table 5 below, with the western area having a clustering of 46% key cadres while 54% is in the other three provinces, with an average of 18% per province. This situation is worsened by midwives, whose current preferred choice is to be stationed in the western area, denying the rest of the country their vital services. As a result, a considerable number of health facilities are served by MCH Aides who are auxiliary female nurses trained to provide midwifery services at community level.

Table 5: Health workforce distribution by category and region

Area of specialisation/study	Number	Location				Needed	Gap	%Shortfall
		WA	South	North	East			
Public health	24	15	3	3	3	30	6	20%
Surgery/Surgeons	5	3	0	1	1	26	21	81%
Physician	3	3	0	0	0	26	23	88%
Clinical Pharmacologist	1	1	0	0	0	24	23	96%
Pharmacist	33	32	1	0	0	52	19	37%
Nephrologists	0	0	0	0	0	8	8	100%
ENT	1	1	0	0	0	8	7	88%
Neuro-surgeons	0	0	0	0	0	8	8	100%
Gastro-enterologist	0	0	0	0	0	8	8	100%
Neurologist	0	0	0	0	0	8	8	100%
Paediatrician	2	2	0	0	0	30	28	93%
Ophthalmologist	1	1	0	0	0	22	21	95%
Haematologist	1	1	0	0	0	6	5	83%
Obstetrician/Gynaecologist	5	4	1	0	0	26	21	81%
Dentists	6	4	1	0	1	30	24	80%
Anaesthesiologist	1	1	0	0	0	12	11	92%
Radiologist	1	1	0	0	0	30	29	97%
Psychiatrist	0	0	0	0	0	12	12	100%
Dermatologist	1	1	0	0	0	6	5	83%
Medical Officers	115	97	5	8	5	150	35	23%
<i>NURSES</i>								
Midwives (Practicing)	95	95	0	0	0	300	205	68%
SECHN	635	425	60	80	70	1,500	865	58%
Nurse anaesthetist	20	15	2	1	2	34	14	41%
SRN	245					600	355	59%
Paediatric Nurses	0	0	0	0	0	72	72	100%
Peri-operative Nurses	0	0	0	0	0	44	44	100%
Ophthalmic Nurses	20	10	6	1	3	30	10	33%
ICU nurses	2	2	0	0	0	20	18	90%
<i>OTHERS</i>								
CHO	132	50	30	25	17	300	168	56%
Cataract Surgeons	2	1	0	0	1	12	10	83%
Refractionist	0	0	0	0	0	30	30	100%
CHA ( 14...See foot note)	-	-	-	-	-	300	300	100%

EHO	135	45	30	30	30	300	165	55%
MCH Aides	825	225	200	220	180	1,500	675	45%
Lab. Technician	14	8	2	2	2	150	136	91%
Pharmacy Technicians	80	62	5	8	5	300	220	73%
Vector controllers	30	16	6	4	4	75	45	60%

Source: MoHS

Unlike the past when training was fragmented and haphazard, it is now more organised due to the HRH Training Policy. This achievement is, however, constrained by the existing training capacity that is still to meet required service demand. The low 'turn-out' of health training institutions is due to several factors such as understaffing, poor infrastructure, inadequate learning and teaching models, among others, to match the existing demand.

Attracting and retaining health workers remains a key challenge due to low staff remuneration; lack of incentives, especially for hard to reach areas; poor career development; and cumbersome and bureaucratic recruitment processes that cause inordinate delays.

### Issues and challenges

- Inadequate number of trained health professionals
- Inequities in the distribution of available health professionals
- Low motivation of health workers
- Poor conditions of service for health care staff.
- Weak HR planning and management.
- Delay in recruitment of staff.
- High attrition rate
- Absence of structured career pathway for most cadres.
- Training institutions unresponsive to the needs of the Ministry.
- Local training institutions have inadequate tutors and are poorly equipped.

### Policy statement

The Ministry of Health and Sanitation will implement the human resource policy and strategic plan that has mapped out the current situation and future staffing needs across the whole health sector and use trend analysis to identify the likely situation over the next 10 years.

### Strategic objectives, actions and targets

#### Objective 1:

Provide and maintain a policy and strategic framework to guide HR development and management

- A comprehensive HRH policy is in place that is in harmony with major HRH stakeholders and national policies by 2010
- A revised long-term HRH strategic plan is in place that is based on flexible and sustainable HRH projections, in line with the availability of resources, by 2010
- Fast track the recruitment process and improve retention for HRH, including special packages for hard to reach areas.
- Develop and implement a comprehensive training plan

#### Objective 2:

Strengthen institutional capacity for HR policy, planning and management

- An integrated HRH information system as part of the HMIS is in place whereby health managers at appropriate levels keep the HR inventory up-dated and maintained by 2011

- Appropriately skilled personnel in HR management are in place at the central level and in all DHMTs and hospitals by 2013

**Objective 3:**

Enhance capacity and relevance for training of health workers, in partnership with other stakeholders

- Strengthen the capacities of health worker training institutions/programmes and introduce accreditation schemes by 2013
- Strengthen training management capacity at national and institutional levels in collaboration with partners in human resource development

**Objective 4:**

Upgrade and enhance competencies and performance of health workers.

- Health worker motivation schemes, including defined career paths and incentive packages institutionalised at central level and all DHMTs by 2013
- Continuous training programmes introduced in various priority areas of work by 2011
- On-the-job training, mentoring and skills development schemes introduced and implementation commenced in all DHMT by 2013

**Objective 5:**

Promote research into HRH interventions to provide evidence-based information for the improvement of service delivery.

- Establish functional partnership with research institutions and other relevant stakeholders.
- Mechanisms for introducing research findings into policy and plans for HR development established in MOHS by 2013.

***Expected outputs/outcomes***

- Health facilities adequately staffed with skilled personnel
- Improved conditions of service for all cadres of health staff
- Effective personnel management systems established
- Effective and targeted staff retention measures developed
- Scheme of service developed and implemented
- Effective collaboration between MoHS and training institutions.
- Training and development in line with staffing requirements as specified in the Human Resource for Health Strategic Plan
- Local training institutions strengthened in terms of tutors, equipment and curricula



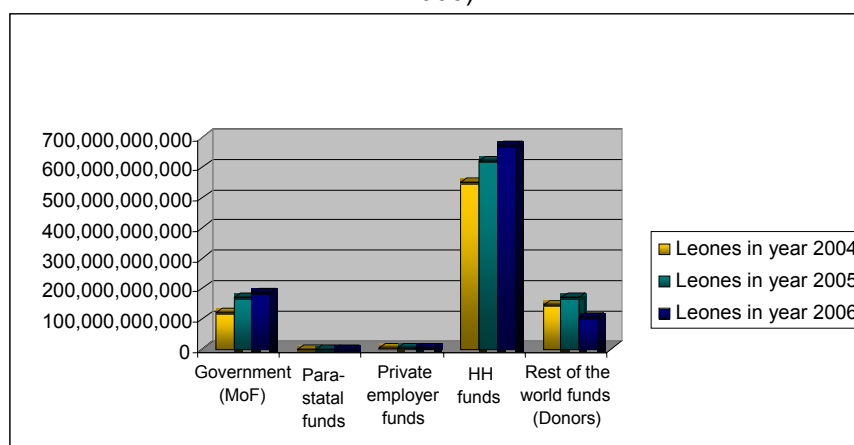
## Chapter 4: Health care financing

### Current status and situation analysis

Government expenditure on health is of particular importance as the public health services in Sierra Leone are the major source of health care for a large proportion of people (70%) who are living below the poverty line and rural areas which are not serviced by the private sector. Per capita government expenditure on health for Sierra Leone was US\$9.05 in 2004, US\$11.76 in 2005 and US\$12.16 in 2006 which is however not commensurate with the WHO Commission for Macroeconomics and Health (CMH) recommendation that government spend at least US\$34 per person per year on health.

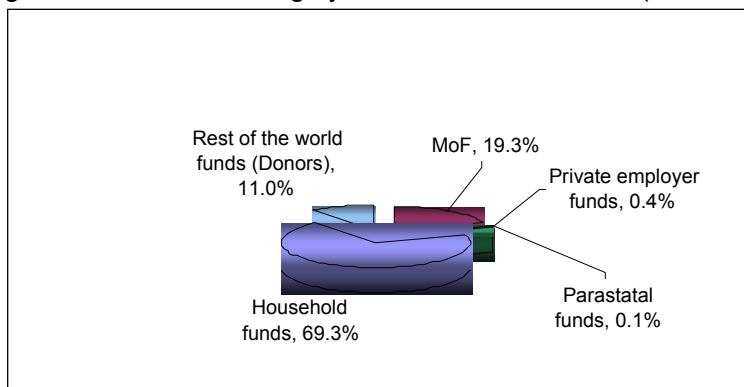
Most sector funds (see figures 5 & 6 below) come from household out-of-pocket payment which has been on the rise as a proportion of the total health expenditures (THE): 67.13% in 2004, 64.08% in 2005 and 69.25% in 2006. Donor funding as a percentage of THE, on the contrary, decreased between years 2005 and 2006 (from 17.8% to 11%). On the other hand, funding from Government of Sierra Leone grew from about 15% of THE in 2004 to 19% of THE in 2006. Funding from parastatals and private employers remained fairly insignificant.

Figure 5: Total Health Expenditure in Sierra Leone by Financing Source (2004, 2005 & 2006)



Source: NHA 2007

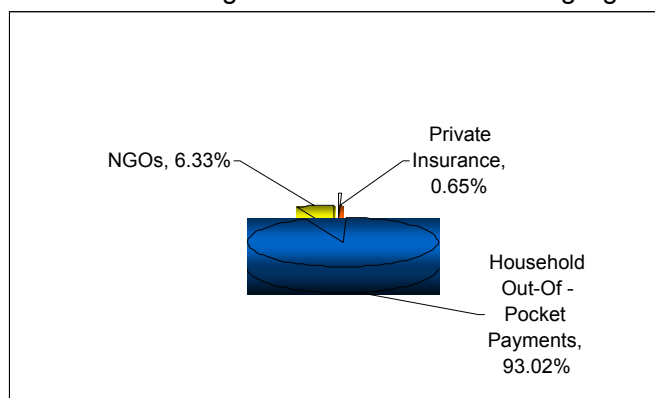
Figure 6: Health Financing by Source in Sierra Leone (Year 2006)



Source: NHA 2007

Private financing agents in Sierra Leone include private insurance, household out-of-pocket payments and non-governmental organisations. Private firms provide 97% of funds received from households, 2.62% come from NGOs and 0.36% from private insurance as seen in figure 7.

Figure 7: Sierra Leone Funding to Private Health Financing Agents (Year 2006)



Source: NHA 2007

The current level of approved public funding as depicted in table 6 below, is approximately US\$ 2.9 per capita. However, only 30% of the Ministry's approved budget is funded.

Table 6: MoHS Budgeted versus actual recurrent government expenditure

1	Approved Budgeted funding per capita (\$)	Population	Dollars	Leones	%
	2.9	5,200,000	15,080,000.00	45,240,000,000.00	100
2	Govt. Actual funding per capita (\$)	Population	Dollars	Leones	
	0.87	5,200,000	4,524,000.00	13,572,000,000.00	30
	GAP				
3	2.03		10,556,000.00	31,668,000,000.00	70

Source: GoSL/MoFDEP

The sector has faced challenges with regard to revenue collection due to a multiplicity of official and unofficial health service fees, some of which are not accounted for; some fees are too high; and there are inadequate waiver and exemption mechanisms, amongst other issues. Without revenue pooling and risk management of this large source of health care financing, those most in need are threatened with aggravation of their poverty status. This observation has justified the government's move towards establishment of a social health insurance scheme which is expected to be a key intervention during this plan period.

Tax revenues that are a main source of health care financing are constrained by a limited tax-base, tax administration system bottlenecks, high levels of unemployment and a large proportion of people living below the poverty line. This situation is further complicated by external funding which, unfortunately, is unpredictable and not aligned to national health priorities, thus leading to high transaction costs and inefficiencies.

## **Issues and challenges**

- Inadequate budgetary allocations for health care delivery
- Cumbersome procedures for accessing donor funding
- Inequitable and inefficient allocation of health sector resources
- Health Care is unaffordable for a majority of Sierra Leoneans

## **Policy Statement**

The Government of Sierra Leone will increase the financing available to the health sector

## **Strategic objectives, actions and targets**

### **Objective 1:**

To secure adequate level of funding needed to achieve national health development goals, including the MDGs.

- Develop a national health policy and an implementation framework on health financing (including development of clear criteria for determining vulnerability)
- Advocate for dedicated taxes for health (e.g. on alcohol, tobacco, cell phones) to ensure that at least 15% of national budget is allocated to health.
- Initiate and implement modalities for resource mobilization.
- Standardise all medical service fees within and across districts.
- Strengthen financial and procurement management systems in the health sector.
- Institutionalize national and sub-national health accounts to track flow of financial resources.

### **Objective 2:**

To ensure equitable access to quality health services free from financial catastrophe and impoverishment

- Develop and implement innovative prepaid health schemes, e.g. social health insurance, or community based health insurance schemes.
- Strengthen safety nets to ensure that the poor have access to quality health services.

### **Objective 3:**

To ensure equitable and efficient allocation and use of health sector resources

- Develop and implement equitable needs-based criteria for allocating financial resources.
- Harness the NGO and private sector resources through contractual arrangements in pursuit of national health development goals.
- Develop provider (health facilities and health workforce) payment mechanisms that create incentives for greater productivity, efficiency and equity.
- Institutionalise health sector efficiency monitoring.

## **Expected outputs/outcomes**

- Increased budgetary allocation to the health sector by central government.
- Resource mobilisation strategies developed and used to secure adequate funds for achieving national health goals, including MDGs
- Sector-wide approach introduced and implemented at all levels of the health sector
- Pro-poor health financing mechanisms implemented at all levels of health service delivery

## Chapter 5: Medical products and health technologies

### **Current status and situation analysis**

Considerable effort has been put into making medicines and health technologies accessible to the general population in the post war era. This has included development of key policy documents; review of legislation; strengthening regulation; establishment of procurement procedures within the public health sector; rehabilitation and construction of health infrastructure; and establishment of medicines regulatory structures, including a quality control laboratory.

A Pharmacy Board of Sierra Leone has been established, through an act of Parliament, which regulates pharmaceutical products, medical devices, cosmetics, the practice of pharmacy and any other matters related thereto. The Board has, however, not realised its full potential due to resource and logistical constraints. In addition, although a National Medicine Policy (NMP) is available, it does not address issues of access to and use of health technologies such as diagnostics and the use of medical devices and consumables in the country. Guidelines for drug supplies/donations have been developed and are being adhered to, but monitoring the quality of these donations has been problematic.

Up to 70% of medicines and related supplies are provided by the private sector because the Central Medical Stores faces a number of challenges. These include shortage of qualified staff and logistics, inadequate funding, lack of a national medicines management information system, inadequate storage facilities and the existence of parallel supply systems. In addition, there is a centralised procurement system with central level procuring for tertiary institutions and emergencies and local government procurement for secondary and primary institutions, thus greatly reducing the sector's ability to benefit from economies of scale and ensure quality of medical products. Although vulnerable groups (e.g. the elderly, children under five, pregnant and lactating mothers) are, as a policy, expected to receive free medical products, the system has continued to be inefficient due to managerial weaknesses.

Added to the above mentioned issues, the medical products that reach health facilities are inefficiently utilised due to a lack of operational guidelines, tools and appropriate training.

The existing laboratory service has inadequately trained staff, is inadequately equipped and has no system for providing quality assurance for the tests conducted, a situation that is exacerbated by the lack of a national public health laboratory. With the myriad of emergencies and disasters that the country faces from time to time, there is also need for a functional and vibrant blood transfusion service that collects sufficient quality blood.

### ***Issues and challenges***

- Outdated policies and guidelines for medicines, medical supplies and equipment, vaccines, health technologies and logistics.
- Presence of sub-standard, inefficacious and unsafe drugs in the local market.
- A weak supply chain management system
- A weak monitoring and surveillance system (pharmaco-vigilance) for drugs
- A Pharmacy Board that is functionally weak

### ***Policy statement***

The Ministry of Health & Sanitation will ensure provision of adequate quantity of good quality, safe and affordable medicines, vaccines, consumables and health care technologies to provide improved services to the people of Sierra Leone.

## **Strategic objectives, actions and targets**

### **Objective 1:**

To review existing policies and develop new policies and guidelines with respect to medicines, medical supplies and equipment, vaccines, health technologies and logistics

- Review immunisation, blood transfusion and national medicine policies
- Review drug donation guidelines
- Review the Pharmacy and Drugs Act and related guidelines
- Develop a traditional medicine policy

### **Objective 2:**

To improve access to good quality, efficacious, safe and affordable medicines, medical supplies and equipment, vaccines and health technologies

- Establish NPPU to address the frequent shortages of medicines and medical supplies and equipment, vaccines and health technologies in the public sector
- Update the training manual on medicines and medical supplies and equipment, vaccines and health technologies to address the inadequate technical and managerial skills of health workers
- Human resource development
- Improve supervision of public health services in the area of management of supplies
- Establish and maintain a pharmaceutical management information system at all levels to address the inadequate medicines, medical supplies and equipment, vaccines and health technologies consumption data
- Conduct an assessment of the current system and computerise and develop indicator tools for NMMIS
- Construct/expand/rehabilitate and equip CMS, DMS (hospitals and PHU facilities) to ensure proper storage and handling of Medicines, Medical Supplies and equipment, vaccines and health technologies at all levels
- Develop inventory control tools (records and forms)

### **Objective 3:**

To strengthen the medicines regulation and quality assurance system

- Develop a legislative document and regulations
- Review and develop a code of ethics and a conduct for pharmacy practice; guidelines and standard operating procedures for medicines inspection, medicines registration, pharmaco-vigilance and quality control analysis.
- Recruit technical assistance to review and develop regulatory guidelines and standard operating procedures
- Establish an IT department for the Pharmacy Board and recruit and train staff on Information Technology
- Computerise the drug registration system
- Computerise the financial, accounting and administrative system
- Computerise the medicines inspection system
- Procure quality control equipment, including spares, chemicals, reagents and reference standards and secure a maintenance contract for quality control equipment.
- Conduct advocacy campaigns
- Monitor and report adverse drug reactions.
- Organise meetings and develop collaboration with medicines regulatory authorities in

the Mano River Union sub region to address the problem of drug counterfeiting and smuggling.

**Objective 4:**

To promote rational and cost effective use of medicines, medical devices, biological and other medical supplies at all levels of the health care delivery system.

- Establish a department for rational medicine use, drug information and sensitisation
- Establish medicine information centres at tertiary and secondary health facilities
- Undertake consumer sensitisation on the rational use of medicines.

**Expected outputs/outcomes**

- Existing policies and guidelines reviewed and updated
- Improved access to good quality, efficacious and safe medicines
- A Strengthened Medicines Regulation and Quality Assurance System
- An independent Pharmacy Board
- NPPU established
- Supply chain management system strengthened.
- Monitoring and surveillance system for drugs and medical supplies well established.

## Chapter 6: Health information system

### Current status and situation analysis

An integrated and properly functioning health information system (HIS) is a prerequisite for sound decision making and planning through provision of timely, reliable and relevant information. Routine health data in Sierra Leone is collected through a network of some 1040 peripheral health units (PHUs) and 30 hospitals that are unevenly distributed throughout the country across 13 health districts coordinated by monitoring and evaluation and disease surveillance officers.

As part of the process of strengthening the HIS of the ministry, a district-based electronic data management system, known as the district health information system (DHIS) has been developed to integrate and improve the quality and efficiency of data storage, transfer, analysis and dissemination. Data is currently being captured in electronic form at district level and entered into an integrated data warehouse (IDW, as shown in figure 8). This has facilitated the production of reports for the DHMT, at national level and for feedback to all levels, including PHUs and community level. It is also utilised by stakeholders during review meetings and decision making at all levels.

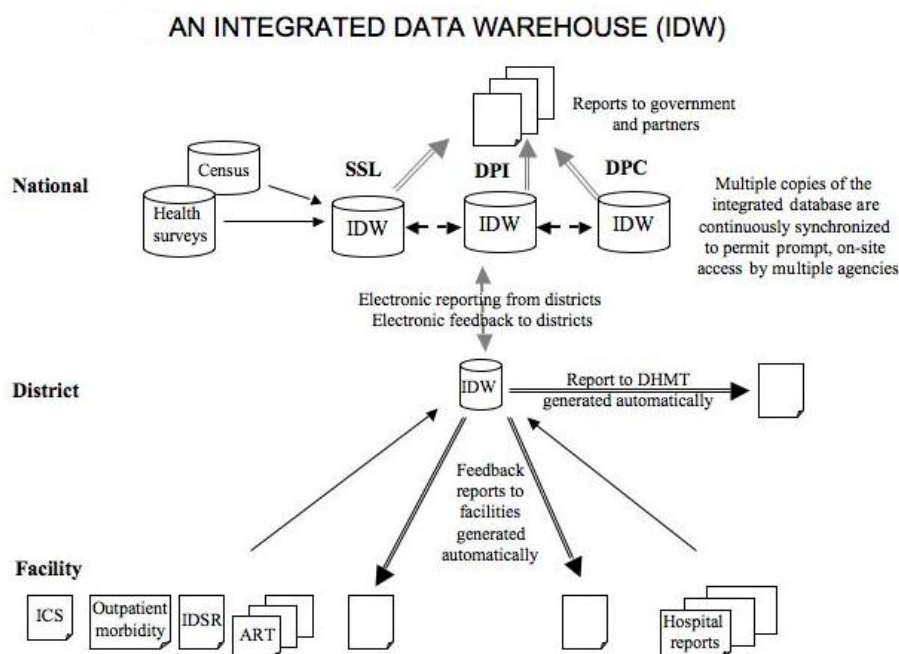


Figure 8: Current Integrated data management

Notwithstanding the achievements so far, the HIS still needs to strengthen its data collection capability at all levels, improve quality of data collected and enhance district analytical capabilities.

### **Issues and challenges**

- Inadequate financial and human resources for implementing HIS plans
- Weak capacity for data analysis, reporting, dissemination and use
- Weak hospital information and vital registration systems
- Poor engagement of the private sector and community groups in data collection

- Lack of standards and guidelines for data collection, analysis and reporting
- Lack of feedback at all levels
- Weak relationship between HIS and programme management
- Catchment area population not well defined
- No maintenance plan for existing ICT infrastructure both at national and district level.

### ***Policy statement***

The Ministry of Health and Sanitation will provide reliable and standardised health information.

### ***Strategic objectives, actions and targets***

#### **Objective 1:**

To provide a policy framework for establishing a functional HIS

- Develop, produce and disseminate a HIS policy based on international health regulations and local needs
- Review utilisation of the HIS for planning, monitoring and evaluation
- Review and update the HIS strategic plan and share it with stakeholders and donors for funding

#### **Objective 2:**

To strengthen institutional framework for implementing a functional HIS

- Improve the Capacity of DPI and DPC to implement the HIS plan
- Strengthen the Capacity of district HIS units
- Identify relevant HIS stakeholders, revitalise the HIS steering committee and establish a technical working group.

#### **Objective 3:**

To improve routine data collection quality, management, dissemination and use

- Establish an integrated data warehouse (IDW)
- Integrate data collection systems
- Harmonise data collection and reporting tools
- Improve capacity of staff at all levels to follow HIS Standards, guidelines and SOPs for data collection, analysis and reporting
- Produce quarterly and annual health statistics for both operations and strategic management
- Advocate for use of health data in planning and decision making at all levels
- Increase use and access to ITC technology for HIS
- Establish a national observatory for health information and knowledge management.
- Advocate for and mobilize adequate resources for national HIS.
- Conduct a comprehensive assessment of the vital registration system and develop a plan to strengthen it.
- Strengthen the vital registration unit both technically and logistically
- Establish a logistics management information system
- Establish a human resource Information system
- Strengthen data collection at community level and from private service providers.

#### **Objective 4:**

To strengthen monitoring and evaluation, research and knowledge management capacity in the health sector

- Revise and disseminate the list of core national and district health indicators
- Develop and implement a comprehensive logical framework for M & E



- Update and implement a plan for conducting population based and other surveys
- Develop a strong mechanism for knowledge management
- Develop a health research policy and strategic plan
- Strengthen capacity for research on health issues
- Promote south-south and north-south collaboration in research
- Establish a forum for dissemination of local research findings
- Develop a central reference laboratory for research

**Objective 5:**

To strengthen and integrate IDSR into national HIS

- Strengthen IDSR information system
- Establish demographic surveillance sites (DSS) in Sierra Leone.

***Expected outputs/outcomes***

- A comprehensive HIS Policy and Strategic Plan in place, providing direction for HIS development in the health sector.
- Disease surveillance information systems are re-aligned and implemented for an integrated approach
- Strengthened capacity for data collection, analysis and use across the sector
- Information systems are integrated into one HIS, covering sector-wide information needs of all stakeholders
- PRSP and other reporting requirements harmonised and information shared at all levels
- Accurate and timely information accessible at all levels and used for planning, decision making and monitoring and evaluation.

## SECTION IV: IMPLEMENTATION OF NHSSP

### Chapter 1: Implementation arrangements

This chapter presents the implementation plan for NHSSP which builds on achievements so far and provides strategies to consolidate and enhance health system performance in the period 2010 to 2015. NHSSP will therefore guide stakeholders on how best to deliver the BPEHS within a framework of systematic health systems development. It is expected to ensure improved health outcomes for all people in Sierra Leone with a special emphasis on the most vulnerable groups. The following will be the key strategies that guide implementation of the plan:

#### Broad Strategies

- Delivery of a comprehensive BPEHS, with an emphasis on decentralisation and active participation of key stakeholders;
- Scaling up priority interventions, in an integrated manner to produce targeted outputs and outcomes, with due consideration to resource constraints;
- Improving quality of care;
- Improving responsiveness and accountability to consumers so as to enhance utilisation of essential services;
- Explicit consideration of women, children and other vulnerable groups in provision of BPEHS;
- Appropriate supervision, monitoring and evaluation framework for the provision of the BPEHS;

#### Delivery of a Comprehensive BPEHS Under Decentralisation

Decentralisation of DHMT, in line with the 2004 LGA, to the LGC will continue and be deepened through clear definition of roles and responsibilities of MoHS, DHMTs and lower levels and aligning them to appropriate authorities as shown in table 7 below. The central level will concentrate mainly on policy and strategic guidance while operational and implementation issues will be the focus of the districts.

Table 7: Responsibilities of MoHS and DHMTs

Level	Responsibilities
Central	Formulating policy, developing strategic plans, setting priorities
	National level budgeting, allocating resources
	Regulating, setting standards, formulating guidelines
	Monitoring performance and adherence to the planning cycle
	Mobilising resources
	Coordinating with all partners (national & international)
	Pre-service training of health staff
	Supporting capacity building for district level staff
	Translating policies into strategic objectives and action plans for service delivery (EHCP)
District	Developing and implementing district operational plans
	Supervising and supporting service delivery and management
	Monitoring and evaluating activities
	Ensuring adherence to guidelines and maintaining quality control
	Capacity building at district level
	Coordinating programmes and stakeholders (development partners, NGOs, etc.)

During implementation of the NHSSP, emphasis will be on making sure that the different levels carry out their mandated functions. This will be achieved through:

- Development of clear indicators for the different levels of the sector, given their mandate. These indicators with clear five-year and annual targets will be included in Volume II of the NHSSP;
- Resource allocation will depend on the responsibilities/functions of the different levels and clearly reflected in annual work-plans.
- Annual work-plans will be developed at the different levels for operationalisation of NHSSP;
- Quarterly, annual, and mid-term reviews will be carried out to ensure adherence of the different levels to their responsibilities/functions;
- Assessment of districts and hospitals will include comparison of performance between like entities, with competitions for performance based incentives being gradually introduced.

### **Working Together as Partners in the Health Sector**

The development process of the National Health Policy and NHSSP involved stakeholders in the health sector. This consultative and participatory process will be continued by the MoHS towards the development of a formalised agreement on how different stakeholders can contribute optimally in the implementation of this 5 year Plan for health development in Sierra Leone. The national coordinating mechanism will be strengthened to enable it provide guidance for institutionalised sector partnership and collaboration at all levels. This will lay the foundation for broader joint corporative frameworks involving financial, technical and managerial agreements with national and international partnerships such as International Health Partnerships Plus (IHP+). Such a framework will include participation of Global Health Initiatives such as GAVI, GFATM and PEPFAR and will discourage vertical programmes with their antecedent duplications and low efficiencies.

Also at the onset of the implementation of NHSSP there is need for inter-sectoral policy dialogue, particularly between MoHS and MLG, relating to managerial efficiency of the DHMTs and hospitals. Attention will be focused on improving the capacities at DHMT levels to cope with multiple partners. Existing structures such as the district health oversight and district social mobilisation committee will be strengthened in tandem with promotion of partnerships of facility-based and community-based private and NGO service providers.

Implementation of NHSSP through partnership will promote the role of government (MoHS) as the overall steward in provision of health services in Sierra Leone and the coordinator of all stakeholder efforts. This will enable efficient and equitable utilisation of all resources, from a variety of sources (government budget, global initiatives, development partners, local governments and households) while minimising duplication and overhead costs. This will be achieved through the following:

- Roles and responsibilities of the government (at various levels), development partners and private not-for-profit and for-profit implementing partners will be further elaborated in a compact NHSSP;
- Regular assessment of performance against these roles and functions will be carried out (quarterly and annually) and will include expenditure reviews;
- Coordination and consolidation of activities carried out by different players, with particular effort focused at the district levels;
- Involvement of the community will be particularly encouraged.

## Delivering an integrated package of services

The health systems strengthening approach used in NHSSP emphasises an integrated services delivery approach. Provision of services is geared towards level of care rather than being disease specific.

Efforts to enhance integration during the NHSSP will be achieved through:

- Development and use of district planning guidelines. These guidelines will lay emphasis on:
  - ⇒ Planning by level of the health service delivery system. The strategies and activities in district plans should cover a broad range of disease programmes e.g. case management of patients, outreach, supervision visits and M & E within a framework of health systems development;
  - ⇒ Minimum service standards for the different levels of care (districts, hospitals, CHC, CHP and MCHP), with clarity on what services should be delivered for the different components of the package (promotive, preventive, curative and rehabilitative)
- Use of generic inputs and logistics systems involving allocation of inputs by level of care, reflecting local needs, based on minimum service standards and not on a specific programme. These inputs include HRH, drugs and other supplies and their management.
- Integrated supervision, monitoring and evaluation framework through:
  - ⇒ Use of a comprehensive performance assessment framework which is included in the district planning guidelines;
  - ⇒ Establishment of integrated teams for supervision and monitoring;
  - ⇒ Use of generic quality of care tools.

## Scaling up of priority interventions

The BPEH includes a set of interventions which are known to improve the population's health, with particular emphasis on reduction of child and maternal morbidity and mortality. These interventions are currently underway in programmes with varying capacities and quality standards. During the NHSSP period, explicit and transparent mechanisms for integrating and prioritising utilisation of available resources will be formulated and implemented at all levels. They will be guided by:

- Long term priorities, objectives and targets as set out in the "Agenda for Change" 2008/2012, the Millennium Development Goals and the National Health Policy;
- Short term objectives and targets as set out in the Annual Budget Framework Papers, operational level plan and reviews.

All public resources (government budget, donor projects and global initiatives) will be aligned with these priorities.

A major focus of NHSSP will be to scale up existing essential interventions in terms of both geographical and functional coverage to ensure that targeted benefits reach the population, as opposed to only starting new interventions. Focus here will be put on interventions in the BPEHS programmes through health systems strengthening. This will allow the health sector to make meaningful progress in reducing maternal, infant and child mortality and morbidity in line with the MDGs, PRSP II and National Health Policy. Scaling up these interventions will not only ensure wider and more equitable coverage, but will also lead to efficiency gains from synchronised delivery of the different aspects of the NHSSP.

In order to achieve the scaling up of interventions during NHSSP, all efforts will be made to ensure:

- Supporting decentralisation of routine management and delivery of health services to

the district level. This will require appropriate capacity and facilitation in terms of human, financial, and logistical resources to be in place in the DHMTs;

- Operationalisation of tertiary health facilities to enable delivery of emergency surgical and obstetric services, including blood transfusion services;
- Basic and comprehensive emergency obstetric care is available in all MCHP, CHC and hospitals;
- Operationalisation of the referral system;
- HIV/AIDS prevention and care through provision of VCT, and PMTCT at all MCHP, CHC and higher level units, including provision of ART at all CHC IV and higher level units;
- Malaria prevention and control through provision of adequate preventive materials (ITNs) free or heavily subsidised for the most vulnerable (children and pregnant women), as well as adequate medicines and supplies at the health unit and community levels;
- TB -DOTS treatment is scaled up to cover the whole country;
- Appropriate and adequate vaccines are available;
- Health promotion.

### **Improving Quality of Care**

The quality of care being provided will require special attention during the implementation of NHSSP. As services are provided during scaling up, there is need to lay emphasis on quality, if the desired gains are to be achieved.

#### **Objective**

To ensure good quality health services so as to maximum health outputs and efficient use of resources.

#### **Strategies**

- Develop and disseminate norms and standards of quality health services to all health service delivery points;
- Ensure service providers use the standards and guidelines by:
  - ⇒ establishing and strengthening a regular supervision system using agreed checklists;
  - ⇒ enhancing awareness and understanding among health workers on the importance of quality health services, including use of health training schools curricula and in-service training;
- Involve the community in quality of care

### **Equitable access for vulnerable communities and individuals**

#### **Reaching the poor, children, the elderly and orphans**

The health sector considers vulnerable groups to be: poor people, children, orphans, women, the elderly, and displaced persons (refugees and internally displaced). Efforts need to be made to address the special needs of these groups in line with the values and principles of the National Health Policy of Sierra Leone. Emphasis on PHC and decentralisation of services in Sierra Leone, including establishment of peripheral units that work with communities, provides an opportunity for improving access to services. However, the existence of user fees and informal payments continues to pose a barrier to access and utilisation by the poor.

#### **Objective 1:**

Provide appropriate and sustainable health services for vulnerable communities and individuals in line with equitable delivery of the BPEHS as follows:

- Equitable resource allocation with special consideration for poorer districts (and other entities) in the financial resource allocation formula;
- Subsidies by the government for the private not-for-profit service providers in communities to enable these providers to reduce the fees charged, Thus improving financial access for the poor, especially in areas where there are no public facilities.
- Consolidating existing infrastructure while special consideration is given to new construction in under-served areas;
- Intensified community mobilisation for marginalised groups like orphans, under-fives, the elderly and women;
- Capacity building to improve access, especially for expectant mothers and under-fives, with due emphasis being given to improving the capacity of health workers to manage these conditions, e.g. using IMCI guidelines to improve management of common childhood illnesses and use of standards to improve antenatal care, etc.

### **Gender**

- Improving reproductive health outcomes will remain a priority area of focus for NHSSP as contained in the RCH strategic Plan.
- Community mobilisation will be used to address gender dimensions at household level, targeting men to make them aware of the importance of women seeking health care, while also targeting women to raise awareness about the importance of them seeking health care for themselves and their children;
- Effect of gender on health and health-seeking behaviour will continue to be defined through reviews and field studies so as to provide more information for appropriate policy development and resource allocation;
- Capacity building of health workers at all levels will continue to take place to ensure mainstreaming of gender issues.

### **Supervision of NHSSP implementation**

Integrated support supervision and monitoring are essential aspects of the health system, and have an impact on the quality of health services provided and efficiency of the system. It is therefore necessary for these elements to be specially addressed during the implementation of the Plan.

### **Objective**

To provide regular and appropriate supervision of the different entities of the health sector as a means of ensuring efficient and equitable delivery of good quality health services

### **Implementation Strategies**

A framework for support supervision and monitoring of the NHSSP that caters for all needs at the different levels of implementation will be institutionalised. This framework will include the following components:

- Supportive supervision of central programmes within the MoHS and other central institutions;
- Supervision and monitoring of hospitals
- Supportive supervision at district and sub-district levels

### **Supportive Supervision of Central Programmes Within the MoHS and Other Central Level Institutions**

All MoHS programmes and other central level institutions such as blood transfusion services and public health laboratories will carry out regular supervision and monitoring. These will include organised self-assessment, regular meetings at the various levels, and reports which will be presented and discussed at the quarterly review meetings of the health sector. The

top team of the MoHS under the guidance of the Chief Medical Officer will provide supervisory support to all programmes and institutions.

#### **Expected outputs**

- Quarterly performance assessment reports, including all technical programmes
- Supervision reports incorporated as part of MoHS annual services reports

#### **Supervision and monitoring to and by local governments**

Capacities of the DHMT will be strengthened to enable them conduct technical support supervision at the district level. Structured activities for this purpose will be incorporated into the annual district plan. A team of officials from various programmes of the MoHS and other central level institutions will ensure appropriate and continuous support to the district. Peer support and technical assistance will be provided as required.

Within the Local Government Councils, administrative and technical leaders will supervise service delivery at the various levels, supported by the DHMTs, who will provide technical leadership.

#### **Expected outputs**

- DHMT quarterly supervision reports
- Technical and support programme specific reports
- Supervision reports as a component of annual reports

#### **Supervision and monitoring to and from hospital**

Hospitals will be supported to develop medium-term strategic plans that will be operationalised through annual plans, under the supervision of hospital management boards. Review cycles will be specified and reports made available. The MoHS will provide the required technical assistance to enhance hospital M & E capacity.

#### **Expected output**

- Specialists reports on service performance

#### **Tools for Supervision, Monitoring and Mentoring**

Supervision, monitoring and mentoring will employ various tools that are agreed within the health sector and these will include:

- Generic guidelines and checklists such as planning and resource allocation guidelines and national supervision guidelines;
- Programme specific guidelines and standards.

## **Chapter 2: Monitoring and evaluation**

The NHSSP has been developed in the context of the Millennium Development Goals and the PRSP II. As such, the NHSSP monitoring framework will be developed to ensure achievement of the MDGs and goals of the PRSP. In the same manner, NHSSP indicators and targets have been set in line with global and national indicators and targets as well as estimated availability of resources (financial and human). The monitoring framework will be inclusive and participatory, using joint reporting, monitoring and evaluation mechanisms.

### **NHSSP Indicators**

Health sector performance will be monitored using a set of agreed indicators whose selection takes cognisance of indicators contained in the implementation framework of the Ouagadougou Declaration, the WHO Toolkit for health systems strengthening and the MDGs. The national level indicators have been maintained, but a few new indicators have been added to incorporate current sector dynamics. Due consideration has been given to ensuring regular (preferably annually) availability of data for these indicators. The national level indicators are shown in Table 8.

In addition to the national level indicators, programme, district and hospital level indicators will be developed to facilitate regular performance assessment at the various levels and to provide an opportunity for comparing entities at these levels. The full complement of indicators will be provided as Volume II of the NHSSP.

### **Sources of information for monitoring the NHSSP**

HMIS is the major tool for collecting information for monitoring the NHSSP. In this regard, strategies will be employed to strengthen HMIS to enable it to play its role effectively in monitoring of the NHSSP. In addition, information from other sources will be used, including:

- Surveys commissioned by the MoHS, which may be carried out directly by programmes within the MoHS or contracted out. They are planned to include:
  - ⇒ Mapping/population survey to determine geographical access to health services, including functional coverage of the NHSSP such as Service Availability Mapping (SAM);
  - ⇒ Use of burden of disease or other appropriate methodology like comprehensive sentinel surveillance sites;
- Surveys in other institutions, including national household surveys, demographic and health surveys, and national service delivery surveys;
- Studies in the health sector which will be commissioned to address appropriate issues
- Support supervision reports for the different levels of care.

### **Evaluating progress**

Regular reports using HMIS and other sources of data will be used to assess progress against agreed indicators and targets and will include:

- Quarterly reports
- Supportive supervision
- Annual performance reports
- Mid-term review and end-term evaluation

### **Quarterly Reports**

These will be produced by the different levels and used both for self assessment and by supervisors to determine progress or lack of it.

### **Supportive supervision**

Supportive supervision will be institutionalised as part of the M&E framework to include:

- National guidelines on comprehensive support supervision developed and implemented



in all districts by 2012

- Skills development programme in comprehensive supportive supervision that is time-bound and with costs indicated by end 2013.

***Annual Health Sector Performance Reports***

The Annual Health Sector Performance Report (AHSPR) will be institutionalised during NHSSP to highlight areas of progress and challenges in the health sector. The review process will include all levels and all health services nationwide. Review reports will be used by all levels to assess performance, following which they will be submitted to the national level for compilation of the AHSPR by the end of March each year. AHSPR will be NHSSP performance report for use by all stakeholders. The AHPSR will be developed through a jointly agreed process that will be validated through a Joint Review Mission to be held in April each year and launched in May/June in the Health Review Summit each year. This cycle will form an integral part of the national coordination mechanism for the implementation of the NHSSP.

***Mid-term Review and End-term Evaluation***

A mid-term review of the NHSSP will be conducted after two and a half years of implementation (second half of 2012) and the report validated and launched in the same manner as the AHPSR in 2013. An end term evaluation of NHSSP will be carried out within the financial year 2015, coinciding with the evaluation for the MDGs.

Table 8: NHSSP Performance Indicators

	Indicators	Baseline (2008)	2015 Target
1	Infant mortality rate (per 1,000 live births)	89 /1,000	50 / 1,000
2	Under-five mortality rate (per 1,000 live births)	140 /1,000	90 / 1,000
3	Maternal mortality rate (per 100,000 live births)	857 /100.000	600 / 100,000
4	Prevalence of HIV, total (% of population aged 15–49)	1.5 %	1.2 %
5	Institutional deliveries	24.6 %	90%
6	Population coverage of health insurance	0%	50 %
7	Percentage of children receiving Penta-3 before 12 months of age	54.6 %	90 %
8	key health professional by cadre per 1,000 population	Doctors = 0.02 /1,000 population;	Doctors = 0.05 /1,000 population;
		Nurses = 0.18 /1,000 population;	Nurses = 0.5 /1,000 population;
		Midwives = 0.02 /1,000 population	Midwives = 0.1 /1,000 population
9	% of population living within 5 km of a health facility	73 %	90 %
10	% of population with access to safe drinking water	50.3 %	90 %
11	Percentage of households with access to improved sanitation	13 %	50 %
12	Prevalence of underweight among children 6-59 months	21.1 %	10 %
13	% of PHUs reporting uninterrupted supply of essential drugs	39 %	90 %
14	Number of primary care or outpatient visits per person to health facilities per year	0.5 contacts/ year	3 contact per year
15	Contraceptive prevalence (% of women aged 15–49)	8 %	30 %
16	Total fertility rate (average number of births during a woman's life)	5.1	4
17	Percentage of children under five years of age who slept the previous night under an insecticide treated net	26 %	80 %
18	Total public health spending per capita.	3.6%	10%
19	Government expenditure on health as % of GDP	5.6 %	15 %

## Chapter 3: Costing of NHSSP

### Background

Having agreed that the design of the Sierra Leonean NHSSP will consist of 6 main pillars through which to deliver health care the costing exercise adopted this as the framework for determining intervention estimates

### Costing methodology

MOHS considered the following costing approaches:

- Costing a health care package by level of care
- Costing different programmatic areas that constitute the health care package
- Costing the package according the Pillars

For each pillar, relevant MOHS staff from all departments was consulted to obtain information on quantities of commodities, estimates of operating costs, etc, relevant documents such as strategic plans and work-plans of different programmes were reviewed. The consolidated costing was reviewed iteratively by all departments and MoHS top management giving inputs on how to improve the estimates and/or asked questions for clarification. The most fundamental issue during the costing, was the high cost estimates of the HRH pillar, mainly being driven by the very high salary estimates that were given for the cost analysis. This situation however, was ultimately contained after it was mutually agreed to significantly reduce salaries.

### NHSSP costing

In this section, cost estimate summaries for each pillar are presented and also a brief write-up on the methods and assumptions used in estimating costs. All cost estimates are presented in US Dollars.

## Leadership and Governance

Table 9: Leadership and governance summary cost of activities

US \$	Y2010	Y2011	Y2012	Y2013	Y2014	Y2015
Develop/ Review Policies, Regulations, etc.	80,000	50,000	-	-	136,500	-
Guidelines for oversight functions & operational manuals & evaluations	250,000	20,000	-	-	199,500	109,148
Capacity building & strengthening existing structures	183,000	192,150	201,758	119,235	125,197	92,610
Staff performance evaluation (develop system + appraise staff)	150,000	70,000	73,500	77,175	81,034	16,538
Networking and Collaboration (incl Study tours)	220,000	221,000	222,050	223,153	224,310	42,063
Line of Communication Guidelines	120,000	-	30,000	-	126,000	76,577
Consultancy Unit	273,500	70,500	71,500	72,500	74,500	25,526
Health Sector Think Tank	100,000	105,000	110,250	115,763	121,551	102,103
Quality Assurance Unit	900,000	400,000	420,000	441,000	463,050	76,577
Supervision and M&E	15,000	15,750	16,538	17,364	18,233	85,085
Partner Coordination	15,000	15,750	16,538	17,364	18,233	38,288
Office equipment & supplies	50,000	52,500	55,125	57,881	60,775	110,611
Vehicles and their maintenance	90,000	20,000	21,000	22,050	23,153	139,966
Establish a SWAp	50,000	50,000				63,814
Other expenses	165,000	136,500	143,325	166,241	158,016	174,417
<b>Total</b>	<b>2,661,500</b>	<b>1,419,150</b>	<b>1,381,583</b>	<b>1,329,727</b>	<b>1,830,050</b>	<b>1,153,322</b>
Per capita (US \$)	0.46	0.24	0.23	0.21	0.29	0.26

### Costing approach – Leadership and Governance

The draft NHSSP activities form the basis for costing of this pillar to which other relevant activities identified during key informant interviews were further included. In obtaining cost estimates for subsequent years, a 5% increase in prices year-on-year was assumed.

These estimates include costs of developing or updating relevant policies and strategies; developing relevant norms, standards, guidelines and tools; supporting the development of district annual work plans; providing support to hospital managers on planning, budgeting and implementation; annual sector review and planning; coordinating private sector partners; supporting professional bodies.

### Service Delivery Costs

Table 10: Cost of key line items for service delivery

US \$	Y2010	Y2011	Y2012	Y2013	Y2014	Y2015
BUILDINGS	1,487,200	19,066,320	34,398,000	34,635,720	24,676,260	-
MEDICAL EQUIPMENT	663,000	9,867,900	15,076,950	16,193,100	12,660,900	-
NON-MEDICAL EQUIPMENT & FURNITURE	702,000	10,181,136	6,919,500	9,652,104	10,187,604	-
MEDICAL EQUIPMENT - for existing facilities	-	19,353,600	20,928,600	14,187,600	14,187,600	-
NON-MEDICAL EQUIPMENT & FURNITURE - existing facilities	-	21,850,962	23,439,444	15,041,922	15,041,922	-
OPERATIONAL & MAINTENANCE COSTS	16,765,200	17,721,900	18,054,540	18,325,440	18,423,720	5,428,000
AMBULANCES & VEHICLES	6,775,000	-	-	-	2,142,000	-
SUPPORT SUPERVISION	754,000	791,700	791,700	791,700	791,700	655,143
OTHER COSTS RELATED TO SERVICE DELIVERY	5,620,000	4,725,857	2,861,260	3,002,719	7,144,823	340,571
Programmes - operational costs	40,293,944	33,473,926	36,782,958	34,762,502	40,657,232	43,188,286
Total	73,060,344	137,033,301	159,252,952	146,592,807	145,913,761	49,612,000
Per capita - US \$	12.71	23.27	26.38	23.68	22.98	7.62

### Costing approach and assumptions – Service Delivery

1. A very conservative number of new health facilities were estimated to be built and refurbished/ upgraded over the 5-year period. This estimate was guided by MOHS's desire focus on making the existing facilities functional rather than building new ones. The number of new facilities, facilities for upgrading, cost of medical equipment, non-medical equipment and furniture were estimated as shown below:
  - a. New health facilities = 65 primary health care units (PHUs) + 3 district hospitals
  - b. Refurbishment = 78 PHUs + 2 hospitals
  - c. Upgrading = 286 PHUs + 22 hospitals
2. The cost of medical equipment, non-medical equipment and furniture for existing health facilities was also estimated. It was estimated that 728 PHUs and 25 hospitals would receive equipment and furniture during the plan period.
3. Operational and maintenance costs for each level of care (for one facility) was estimated and then multiplied by the number of health facilities in each category.
4. The number of ambulances and vehicles required for hospital and district levels was estimated with the assumption that procurements would all be done in the first year, and that in the last year a few new ambulances would be purchased to replace the worn-out ones that currently exist. These estimates exclude vehicles needed at central level (as these were captured elsewhere).

5. Through key informant interviews and review of relevant documents (e.g. strategic plan or annual work plans), operational costs for each division or directorate in MOHS were estimated. These included: TB/Leprosy, EPI, HIV/AIDS, Malaria, Safe blood, School and Adolescent Health, Reproductive health, hospitals and laboratories, Neglected Tropical Diseases, Health Education, Nutrition, Nursing services, non-communicable diseases, Drugs and Medical supplies, Internal Audit, Primary Health Care, Administrative sub-division, Planning and Information department, etc. In this line item, (a) annual operational costs and (b) vehicles for each division/department were captured.
6. These estimates assumed a 5% year-on-year increase in prices.

### **HRH Costs**

The costs of HRH include (a) remunerations, (b) training, (c) extra allowances and (d) other HRH-related costs. As noted earlier, the initial salaries used for estimating remuneration costs were very high (as proposed in the draft staff incentives scheme). In revising the salaries, 2 scenarios presented below were derived:

#### **HRH Costs – Scenario 1**

Table 11: Salary costs for all staff, by level of care (based on 35% of proposed salaries)

US \$	Y2010	Y2011	Y2012	Y2013	Y2015
MCHP	3,923,520	4,219,614	4,430,595	4,652,124	4,884,731
CHP	1,809,000	1,899,450	1,994,423	2,229,586	2,341,065
Clinic	1,404,000	1,474,200	2,063,880	2,167,074	2,844,285
CHC	7,722,000	8,394,750	9,072,473	9,526,096	10,002,401
District hospital	28,838,400	30,280,320	33,384,053	36,722,458	38,558,581
Tertiary hospitals	8,226,720	8,638,056	9,069,959	9,523,457	9,999,630
District management (public health)	1,209,000	1,269,450	1,332,923	1,399,569	1,469,547
MOHS - headquarters	1,274,400	1,338,120	1,405,026	1,475,277	1,549,041
<b>Annual total</b>	<b>54,407,040</b>	<b>57,513,960</b>	<b>62,753,330</b>	<b>67,695,641</b>	<b>71,649,280</b>

Table 12: Summary of all HRH costs (Scenario 1)

US \$	Y2010	Y2011	Y2012	Y2013	Y2015
Remuneration of HRH	54,407,040	57,513,960	62,753,330	67,695,641	71,649,280
Training of HRH	1,850,000	1,602,500	1,976,125	1,703,431	2,059,978
Extra allowances for HRH	695,829	738,000	801,257	843,429	875,057
other HRH-related operational costs	1,722,000	855,350	763,225	963,625	912,371
<b>TOTAL - HRH Pillar</b>	<b>58,674,869</b>	<b>60,709,810</b>	<b>66,293,936</b>	<b>71,206,126</b>	<b>75,496,686</b>
<b>Per capita (US \$)</b>	<b>10.21</b>	<b>10.31</b>	<b>10.98</b>	<b>11.50</b>	<b>11.89</b>

Results in Table 11 show that about \$55 million (190 billion Leones) is needed in the first year, for salaries alone, and this increases quite significantly to about \$72 million by the last year of the NHSSP. These estimates are made on the basis of only 35% of the proposed salaries. In other words, the proposed salaries were reduced by 65% in this scenario. Table 12 provides the overall total cost of the HRH pillar, with a need of nearly \$59 million (approx. 205 billion Leones) in the first year of the NHSSP, resulting in a per capita cost of about \$10 in the first two years and \$11 in the subsequent years.

## HRH Costs – Scenario 2

Tables 13 and 14 provide the HRH costs for the second scenario. In this scenario, salaries were reduced even further to only 27% of the proposed salaries. Results in Table 13 show that salary costs would be approximately \$42 million in the first year, and that this would increase to about \$55 million in the last year of the NHSSP. Table 14 shows that the total cost needed for the HRH pillar would be \$46 million in the first year, translating to about \$8 per capita.

Table 13: Salary costs for all staff, by level of care (based on 27% of proposed salaries)

US \$	Y2010	Y2011	Y2012	Y2013	Y2015
MCHP	3,151,680	3,389,526	3,559,002	3,736,952	3,923,800
CHP	1,326,600	1,392,930	1,462,577	1,635,030	1,716,781
Clinic	996,840	1,046,682	1,465,355	1,538,623	2,019,442
CHC	5,488,560	5,966,730	6,448,434	6,770,856	7,109,399
District hospital	22,298,400	23,413,320	25,813,185	28,394,504	29,814,229
Tertiary hospitals	6,501,840	6,826,932	7,168,279	7,526,693	7,903,027
District management (Public Health)	1,042,080	1,094,184	1,148,893	1,206,338	1,266,655
MOHS - headquarters	1,216,920	1,277,766	1,341,654	1,408,737	1,479,174
<b>Annual total</b>	<b>42,022,920</b>	<b>44,408,070</b>	<b>48,407,379</b>	<b>52,217,732</b>	<b>55,232,507</b>

Table 14: Summary of all HRH costs (Scenario 2)

US \$	Y2010	Y2011	Y2012	Y2013	Y2015
Remuneration of HRH	42,022,920	44,408,070	48,407,379	52,217,732	55,232,507
Training of HRH	1,850,000	1,602,500	1,976,125	1,703,431	2,059,978
Extra allowances for HRH	695,829	738,000	801,257	843,429	875,057
other HRH-related operational costs	1,722,000	855,350	763,225	963,625	912,371
<b>TOTAL - HRH Pillar</b>	<b>46,290,749</b>	<b>47,603,920</b>	<b>51,947,986</b>	<b>55,728,217</b>	<b>59,079,913</b>
Per capita (US \$)	8.06	8.08	8.60	9.00	9.31

As seen in scenarios 1 and 2 above, salary reduction results in significant changes in the overall cost of human resources. Obviously, scenario 1 provides slightly better salaries for staff, but this has implications for overall cost to the sector. There is a 22% reduction in total cost of HRH between scenarios 1 and 2.

### Costing approach and assumptions – HRH

1. The salaries used for staff were initially based on those being proposed in the draft staff incentives scheme. Having found these salaries substantially high, salaries were revised downwards (reducing the proposed salaries by 65% in scenario 1 and reducing by 73% in scenario 2).
2. Remuneration costs were estimated by level of care using the list of staff per cadre required per level of care. Remuneration costs of staff per facility (for each level of care) for the first year was used to calculate the total remuneration cost for each level of care by multiplying the cost for one facility by the total number of facilities (for each level). In the first year, the number of facilities is equal to the number currently in place. In the subsequent years, the number of facilities is equal to the ones currently available plus those projected to be built. To obtain costs for the remaining four years, a year-on-year 5% increase in costs is assumed.

3. Annual estimates for training, extra allowances and other operational costs were made. A 5% year-on-year increase in costs is assumed for the remaining period.

### **Health care financing**

Table 15: Estimated cost of health financing-related activities

US \$	Y2010	Y2011	Y2012	Y2013	Y2014	Y2015
Develop / Review Policies and Strategies	115,000	-	-	80,000	80,000	-
Flow of funds and Resource allocation	50,000	-	-	-	-	76,577
Financing alternatives	150,000	240,000	40,000	42,000	44,100	76,577
National Health Accounts	200,000	-	250,000	-	300,000	76,577
Conduct Public Expenditure Review (PER)	60,000	63,000	66,150	69,458	72,930	-
Training and Capacity Building	45,000	55,000	57,750	60,638	63,669	100,000
M&E and Research	210,000	334,500	719,225	554,186	359,396	138,288
Other activities	-	30,000	-	33,000	-	138,288
<b>Total</b>	<b>830,000</b>	<b>722,500</b>	<b>1,133,125</b>	<b>839,281</b>	<b>920,095</b>	<b>606,308</b>
Per capita (US \$)	0.14	0.12	0.19	0.14	0.14	0.09

Compared to the other pillars, costs related to health financing are relatively low, amounting to about \$0.8 million per year, and as such has the lowest per capita cost of all the pillars. To obtain the cost of subsequent years, a 5% increase in prices every year is assumed.

### **Medical products and technologies**

Table 16: Estimated cost of medicines, health supplies and technologies

	Y2010	Y2011	Y2012	Y2013	Y2014	Y2015
Essential Medicines - for whole country	77,712,728	81,598,365	85,678,283	89,962,197	94,460,307	99,183,322
Essential Health Consumables - for whole country	15,653,089	16,435,744	17,257,531	18,120,408	19,026,428	19,977,749
EPI commodities	2,500,000	2,625,000	2,756,250	2,894,063	3,038,766	-
RH / Family planning commodities	2,000,000	2,100,000	2,205,000	2,315,250	2,431,013	-
HIV/AIDS commodities & products	2,060,072	1,680,591	1,162,882	1,182,934	1,446,730	3,190,704
anti-TB drugs	600,000	630,000	661,500	694,575	729,304	2,552,563
ACTs	94,985,421	99,734,692	104,721,427	109,957,498	115,455,373	1,519,067
RDTs for Malaria	2,300,000	2,415,000	2,535,750	2,662,538	2,795,664	765,769
ITNs (including their distribution costs)	-	7,020,000	8,424,000	7,884,000	4,212,000	121,228,142
Distribution costs - ACTs and RDTs	100,000	105,000	110,250	115,763	121,551	2,935,448
Lab reagents and supplies	8,500,000	9,350,000	10,285,000	11,313,500	12,444,850	4,422,600
Distribution of commodities	700,000	735,000	771,750	810,338	850,854	127,628
Safe blood and related products	1,200,000	1,260,000	1,323,000	1,389,150	1,458,608	13,067,093
Vitamin A	97,143	102,000	107,100	112,455	118,078	893,397
Other supportive activities	1,349,167	1,171,917	724,429	267,313	835,929	1,531,538
Freight and handling charges (15% of total cost)	3,278,582	3,278,582	3,278,582	3,278,582	3,278,582	3,442,511
<b>Total for Pillar</b>	<b>213,036,202</b>	<b>230,241,891</b>	<b>242,002,734</b>	<b>252,960,562</b>	<b>262,704,035</b>	<b>274,837,530</b>
Per capita	20.86	22.48	23.07	23.44	23.54	18.31

### Costing approach and assumptions – Medical Products and Technologies

1. Annual quantities and cost estimates for medicines and health consumables were obtained that included 2009/10 reproductive and child health (RCH) package which constitutes approximately 75% of the total national need. In cognisance of this fact, the total national need was estimated by taking the RCH estimates and dividing them by 0.75 assuming a year-on-year increase of 5% to estimate the annual cost of commodities for the subsequent years.
2. The national need for other health commodities was obtained through interviews of key informants and review of relevant documents (such as the Global Fund proposals). These include commodities like EPI products, antiretroviral drugs, HIV/AIDS test kits, insecticide-treated nets for malaria, artemisinin-based combination anti-malarials, rapid diagnostic tests for malaria, anti-TB drugs, vitamin A, safe blood products and reproductive and family planning commodities. In addition, the cost of distributing these commodities from central level to districts or communities was estimated as a stand-alone item.
3. Towards the conclusion of NHSSP development, quantification of anti-malarial medicines was conducted by the programme using internationally acceptable assumptions. This grossly altered the earlier estimates by approximately US\$ 100 million annually.
4. Costs of “other supportive activities” related to this pillar were also estimated. Such activities include” review of policies on medicines and health supplies; review of the Pharmacy and Drug Act; strengthening the central and district medical stores; computerising the national medicines information systems and medicines inspection systems; updating training manuals; assessment of existing systems; review of inventory control tools; development of standard operation guidelines for medicines inspection and registration; amongst.

### Health Information System

Table 17: Estimated cost of HMIS-related activities

US \$	Y2010	Y2011	Y2012	Y2013	Y2014	Y2015
Development of Policies and Strategies (Dev't & printing)	378,000	-	-	-	270,120	144,900
Staff recruitment	588,360	617,778	648,667	681,100	715,155	300,604
Procurement of office equipment	365,000	40,800	41,616	42,448	43,297	651,970
Procurement of vehicles and motorcycles	355,000	-	-	-	-	372,750
Fuel and vehicle maintenance	45,143	47,400	49,770	52,259	54,871	57,615
Internet services & website maintenance	177,000	127,600	133,980	140,679	147,713	186,599
Training	708,000	92,500	95,125	95,676	96,255	749,968
Printing HMIS forms	172,000	128,100	234,505	306,230	318,542	860,724
Technical Assistance	300,000	315,000	-	-	-	330,750
Capacity Building	630,000	696,500	694,575	729,304	765,769	840,807
Strengthen existing systems	1,195,000	496,900	512,838	529,395	546,598	573,928
National Assessments / Surveys (incl printing and dissemination)	475,000	1,248,350	1,223,868	640,209	3,192,043	1,470,516
Improve access to HIS information	180,000	104,500	107,625	110,906	114,352	162,069
Supervision	440,800	462,840	485,982	510,281	535,795	562,585
Monitoring and Evaluation + Research	1,465,000	604,750	647,988	661,897	661,507	741,832
Developing & maintaining Information Systems	470,000	130,000	136,500	143,325	150,491	158,016
Coordination and collation of M&E data from all directorates and programs	50,000	35,000	36,750	38,588	40,517	42,543



Other activities	51,000	25,400	25,908	26,426	26,955	34,602
<b>Total</b>	<b>8,045,303</b>	<b>5,173,418</b>	<b>5,075,696</b>	<b>4,708,723</b>	<b>7,679,979</b>	<b>8,242,778</b>
<b>Per capita (US \$)</b>	<b>1.40</b>	<b>0.88</b>	<b>0.84</b>	<b>0.76</b>	<b>1.21</b>	<b>1.21</b>

### Costing approach – HIS

As much as possible most activities relating to information, supervision and monitoring were brought into this pillar. However, supportive supervision and M&E activities that are specific to technical programs were included in the “leadership and governance” excluding coordinating and collating information from the different programs which is included in the HIS pillar. As for all the other pillars, a 5% increase in costs was assumed in calculating costs of the subsequent years.

### Overall summary of costs

Table 18: Summary of cost for each pillar (with Scenario 1 of HRH costs)

	US \$	Y2010	Y2011	Y2012	Y2013	Y2014	Y2015
Financing		830,000	722,500	1,133,125	839,281	920,095	590,900
HMIS		8,045,303	5,173,418	5,075,696	4,708,723	7,679,979	7,901,573
Human Resources for Health		168,261,629	176,583,820	192,959,809	207,673,166	220,199,740	225,942,341
Leadership and Governance		2,661,500	1,419,150	1,381,583	1,329,727	1,830,050	1,677,900
Medical Products and Technologies		213,036,202	230,241,891	242,002,734	252,960,562	262,704,035	119,161,072
Service Delivery		73,060,344	137,033,301	159,252,952	146,592,807	145,913,761	49,612,113
<b>Total for all 6 Pillar</b>		<b>343,981,241</b>	<b>422,194,180</b>	<b>460,856,932</b>	<b>462,159,317</b>	<b>478,196,977</b>	<b>239,638,348</b>

Table 18 provides a summary of the overall cost of the strategic plan, broken down by pillar. Selecting HRH costs scenarios 1, Sierra Leone needs about \$344 million to effectively provide health services to its population in the first year. This amount increases quite significantly each subsequent year for the first 3 years and peaks at about \$478 million in the fifth year, and reduces slightly in the final year. This translates into a per capita of \$45.2 in the first year which grows to about \$60 per capita in the third year onwards. Considering that Sierra Leone is in a reconstruction phase, following the long civil war, these per capita estimates are reasonable and are in line with other international estimates of \$40 per capita estimates a few years ago.

Expectedly, service delivery takes the largest share (initially 28% that rises to 41%) of the total cost. The main reason for the initial low proportion is the assumption that in the first year of the strategic plan there wouldn't be significant construction of health facilities and purchase of equipment and furniture. Medical products and technologies which take up the second largest share are initially 45% but subsequently settle at 38% of the total cost. The third largest is HRH. These 3 pillars together take up 96% - 98% of total cost of the strategic plan.

# ANNEXES

## **References**

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