Government of Sierra Leone
Ministry of Health and Sanitation.

Sierra Leone Immunization Vision and Strategies (SLIVS) 2007-2011

Maternal and Child Health Care/Expanded Programme on Immunization (MCH/EPI) Division

Final draft

October, 2006

TABLE OF CONTENTS

1. BACKGROUND

1.1 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; the dry season starts in November and ends in April, while the rainy season starts in May and ends in October. The land area covers approximately 71,740 sq, km, about 28,000 sq miles.

Administratively, the country is divided into four major areas, namely Northern Province, Southern Province, Eastern Province and the Western Area where the capital Freetown is located. The provinces are divided further into twelve districts, while the districts in turn are sub-divided into chiefdoms, governed by local paramount chiefs.

According to the 2004 National population census, Sierra Leone has a population of 4,976,871 inhabitants with a male/female ratio of 94:100. The annual population growth rate is estimated at 2%.

1.2 Macro-economic Situation

Sierra Leone experienced a decade long (1991-2001) civil conflict during which about 55% of its health facilities were either partly or completely destroyed and left about 60% of its population dislocated from their homes. The end of the war was followed by successful conduction of Presidential and Parliamentary elections in May, 2002.

The cessation of hostilities and eventual restoration of security countrywide strengthened confidence, which facilitated economic recovery during 2000-2004. Economic activity was spurred by the countrywide reconstruction and rehabilitation work. Real GDP, which had increased by 3.8 percent in 2000, rose sharply by 18.5 percent in 2001. It further increased by 27.5 percent in 2002 and 9.4 percent in 2003, largely on account of the broad recovery in agriculture, mining, manufacturing, construction and services sectors. Real GDP grew by 7.4 percent in 2004, supported mainly by the continued recovery of the agricultural sector, expanded reconstruction and other investment activities. Domestic revenue also increased from 7 percent of GDP in 1999 to over 12 percent of GDP in 2003 and remained about the same level in 2004.

Inflation also fell sharply in 2001, being negative in most of 2002, and contained at a single digit in 2003. The official exchange rate remained relatively stable during 2001-2002 and the first half of 2003. Interest rates remained generally stable and positive in real terms during 2001-03. However, inflationary pressures re-emerged in the second half of 2003 and continued into 2004. Average annual inflation rose to 8.2 percent, resulting initially from higher fuel costs, expansionary monetary policy (partly owing to delays in donor support), and a depreciation of the exchange rate.

Diamond exports grew strongly by 36 percent in 2003. At the same time, imports growth remained at a high 15 percent due to continued expansion in reconstruction activities and higher oil prices. As a consequence, the current account deficit, excluding official transfers,

widened to 26.8 percent of GDP in 2003 from 25.6 percent in 2002. The current account deficit is projected at 25.2 percent of GDP in 2004.

1.3 Health Sector Status

Sierra Leone, like most sub-Saharan African countries, has poor health status indictors. The situation has been worsened by the civil war, which led to virtual collapse of social services and economic activities in most parts of the country. As a result, it has found itself among the countries with the worst UNDP development index indicators. Some of the country's Millennium Development Goals (MDG) indicators worsened as a result of the war. The under-five mortality rate, which was about 286 per 1,000 live births during the war, has reduced to 203 per 1,000 live births. The maternal mortality ratio has stagnated and remains unacceptably high at 1,800 per 100,000 live births.

The Health Status of the population, compared to the sub-Saharan countries, is critical. Demographic and health indices, according to the provisional results of the MIC 3 Survey of 2005, revealed the following:

Indicators	**Sierra Leone**
Total Population	4.9M
Annual Growth Rate	2%
Life Expectance years	43
Infant Mortality Rate	17%
Under Five Mortality Rate	28.6%
Maternal Morality Rate	18%
Under weight prevalence in children <5 years of age	30%
Stunting prevalence in children <5 years of age	39.5%
Population with access to safe drinking water	46.5%
Population with access to safe excreta disposal means	30.5%
Antenatal care received at clinics	93.6%
Deliveries attended by skilled personnel	41.7%
Contraceptive prevalence rate (modern)	4.3%
Birth weights below 2.5 kg	23.2%
Knowledge of HIV/AIDS prevention and misconceptions	21.1%
Neonatal protection	77.7%

Source (*MICS 3, 2005*)

The country has poor health status due to high disease burden from mainly environmental related communicable diseases aggravated by poor nutrition. Malaria (35.1%), acute respiratory infection (21.7%) and watery & bloody diarrhoea (8.1%) are the top most causes of outpatient attendance together accounting for about 65%. The nutritional status of the population is equally poor. Moderate and severe stunting prevalence in under-fives increased from 34% in 2000 to 40% in 2005. These three diseases together with malnutrition account for about 75% of under–five consultations. Although the under–fives is about 17% of the population they make up 49% of consultations at PHUs. Malaria is hyper – endemic/holo-endemic in the country, and affects the whole population but children under five years and pregnant women are most vulnerable with high morbidity and mortality rates.

The country also experiences from time to time outbreaks of the following epidemic prone diseases: Cholera, Yellow fever, Shigellosis, Lassa fever, Measles and Meningitis.

Fertility rates remain high, estimated at 6.5 for women. High fertility rates are closely related to rural residence and low socio-economic status, with age at first childbirth being low. Contraceptive prevalence rate also remains low at 4%.

A recent national population based sero-prevalence survey for HIV reported a national prevalence of 1.53%. In spite of the low HIV prevalence rate, there are factors such as high prevalence of sexually transmitted infections (STIs), poverty, ignorance and a youthful population that could easily fuel the pandemic.

Currently, the public health sector has serious inadequacies in the area of human resources, hence the development of health manpower remains high among the MOHS' list of priorities. Before the war (1990), about 90% of vacancies in the MOHS were filled with appropriately qualified staff. However, during the war, there was extensive human resource depletion in all cadres of medical personnel, as more than 60% of health care staff left the country, resulting in an acute shortage of Specialists. In an effort to remedy the situation, the Ministry, in 2004, developed a Master Training Plan that focused on specialized training within the sub-region.

The birth of peace in 2002 opened new opportunities and at the same time brought in new challenges for all sectors of the health system including EPI. Peace consolidation and the subsequent improvement of security situation have resulted in an increased proportion of the population accessing the limited health services.

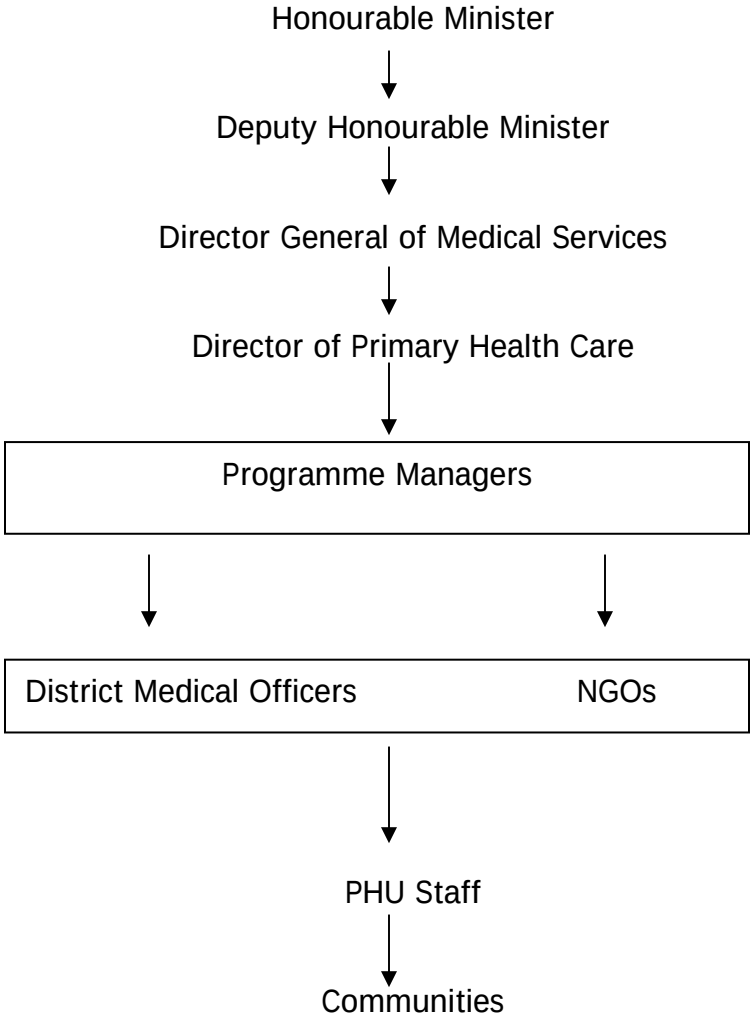
1.4 Health Sector Organization

Health sector administration is primarily the responsibility of the Ministry of Health and Sanitation at the Central level and supported by the District Health Management Teams in the periphery.

At central level, the Hon. Minister is head of the Ministry, assisted by the Deputy Minister.

There are two wings of the Ministry – the professional wing headed by the Director General of Medical Services, and the administrative wing headed by the Director General of Management Services. Under the Director General of Medical Services, there are five technical divisional directorates. These directorates are further classified into technical programmes as the organization structure below illustrates for Directorate of Primary Health Care (PHC).

Primary Health Care Organogram



Medical Services is divided in to six divisions: Primary Health Care, Planning and Information, Hospitals and Laboratory Services, Drugs and Medical Supplies, Disease Prevention and Control and Nursing and are each headed by a Director. Primary Health Care (PHC) where EPI belongs is further sub-divided in to units, which are headed by Managers.

Management Services has four divisions: Financial Resources, Internal Audit, Human Resources and Support Services, which are also headed by Directors, and further divided into units overseen by Managers. The Directors and Managers under the Director General are responsible for the preparation and implementation of the central level technical and support Programme activities. These staff will plan, budget and carry out specific central level activities under the National Health Action Plan (NHAP) and provide support and supervision to the whole of the districts.

At District Level the District Health Management Team (DHMT) oversees and supervises all Primary Health Care Activities delivered through the Peripheral Health Units (PHUs) of each district (see annex 4). The team is headed by the District Medical Officer (DMO) who reports to the Director of PHC and to the Programme Manager for EPI Activities at central level. Within each district, there are PHUs and a Government District Hospital. The DHMT is the focal point for managing the implementation of District Health Plans. With the new dispensation - decentralisation of health service delivery, the Local Councils now provide funding and other support for PHC activities at district level.

The Head of the Peripheral Health Unit (PHU) is the Community Health Officer, supported by Dispensers, Maternal and Child Health Aides (MCHA), Vaccinators, Porters, Volunteers, Cleaners and Watchmen. PHUs are directly responsible to the District Health Management Teams. PHUs provide EPI Services at community level. They are the outlets at which vaccines and other EPI supplies are utilized and also determine the level of wastage and drop out rates at each point.

1.5 Health Sector Reform

The national health policy is based on the Primary Health Care concept. Following the implementation of several pilot primary health care initiatives, including the Bamako Initiative, a broad based health sector policy was developed in 1993 and revised in 2002. The policy has Primary Health Care as the main thrust, five (5) objectives, nine (9) key components and ten (10) priority areas.

The implementation of the policy is facilitated by technical policies, ten (10) of which, including immunisation policy, have been completed and are in use. A reproductive health policy is also currently being developed.

These policies reflect adequately on the government's PRSP document, and international and regional initiatives such as the Millennium Development Goals, Roll Back Malaria, CRC, CEDAW, Cairo Declaration, the Beijing Platform of Action, and NEPAD health objectives.

Sierra Leone is currently in the process of further strengthening its health care delivery system through the decentralization of services. This reform process aims at enhancing local control and utilization of health care services. Already all PHU services have been decentralised, and hospital services will be decentralised in 2008.

1.6 Health Sector Financing

Financial support for public health services comes from four principal sources:

(a) Funds allocated from the general revenue in government recurrent and development budget.
(b) Cost-recovery on drugs

(c) External assistance
(d) Heavily Indebted Poor Countries (HIPC)

In the early 1980's, Sierra Leone health expenditure was 2.5% of GNP, compared to other developing countries where spending was 7% of GNP. In 1991/92 the budgetary allocation was 4.3% of the overall national budget and only 0.4% of GNP. In 1995, total recurrent expenditure in the health sector went up to 9.8%. In 1999 the total government recurrent expenditure in health increased to 10.8%. At the Abuja meeting of Africa Heads of government in 2002, it was agreed that health budget should be at least 15% of the total government annual budget.

Total Government expenditure on EPI for the year 2002 was Le 1,535,380,000, which is equivalent to 0.24% of the annual total government budget expenditure for the health sector.

Subsequently, the health expenditure has been 8.3% for 2003, 4.8% and 6.12% for 2004 and 2005 respectively.

Ministry of Health and Sanitation appreciates the importance and need for a stringent financial reform within the health sector, to ensure that what is allocated is accessed, and spent in an efficient, timely and cost-effective manner. Steps have also been taken at the central level to develop proper financial management, accounting and procurement systems. The creation of the Financial Management Team at the Ministry to monitor all resource allocation and expenditure is proof of the Ministry's commitment to managing its financial resources properly.

Funds are accessed from the Ministry through a budgetary work plan submitted by programmes and the districts. For the purpose of decentralisation, funds are directly remitted to district accounts so as to decentralise programme decision-making and operations at peripheral and district levels. Funds remitted to each programme or district should be liquidated fully and accompanied by a written report on all activities conducted using the allocated fund.

Funding for EPI specifically is borne mainly by donor agencies particularly UNICEF which provides 80% of the total EPI operations budget in the form of procurement of vaccines, cold chain equipment, logistics, training and limited operations. Complementary to UNICEF support are those of the Ministry of Health which provides the staff and salary for all EPI workers; and procures injection safety materials for immunisation through UNICEF. WHO provides technical support, and GAVI the ISS support. At the district level the Non-Governmental Organisations (MSF, Sierra Leone Red Cross, MERLIN, Christian Children's Fund and World Vision) provide some assistance.

The Ministry of Finance allocates funds for the day-to-day functioning of the government.

At the end of the year, Ministry of Finance requests budget estimates from all Ministries for the following fiscal year.

The estimates are later tailored based on the ceiling available for each Ministry. After scrutiny, funds are allocated to all Ministries. Funds are then dished out to programmes on a quarterly basis using the MTEFS forms designed by the Ministry of Finance. All funds remitted to programmes must be used before any other allocation is made.

1.7 Poverty Reduction Strategy Paper and Mid Term Expenditure Framework (PRSP/MTEF)

To reverse poverty and its underlying causes, Sierra Leone is following a new strategic direction, to build towards the MDG targets and Vision 2025. The 2005-2007 PRSP provides bold Sectoral policies and institutional reforms to achieve economic growth, providing food security, job opportunities, basic social services and effective social safety nets. It proposes actions to address (a) short-term living conditions, and (b) long-term causes of conflict and poverty. Consolidation of peace and security, and continued deepening of reform, will ensure that growth translates into reduced poverty and improved human development. By linking the PRSP to attaining the MDGs, government expects maximum cooperation and support from the international community.

The PRSP has three pillars, each with objectives closely tied to the MDGs. They are Pillar One: Promoting good governance, security and peace; Pillar Two: Pro-poor sustainable growth for food security and job creation; and Pillar Three: Human development.

Pillar Three supports human development. After food security, the priorities of the poor are access to education, health and water, as the route out of extreme poverty.

The overall goal for health care is equitable access to affordable basic services, improving quality of service and restructuring delivery mechanisms, especially for the poor and vulnerable. Care will focus on maternal, infant and under-five mortality, malaria and communicable diseases, HIV/AIDS and other STIs. Devolution of health management will encourage community participation. Government plans to strengthen secondary and tertiary services where they support the basic level, and to establish nurses training schools and other institutions for paramedical support staff.

The Government approved the Medium Term Expenditure Framework (MTEF) process in the 2000 Budget speech. The Public Expenditure Tracking Survey (PETS) is the main flagship activity within the MTEF process. A second PETS to track expenditures for the second half of 2001 was conducted in August 2002. The most current PETS to track expenditure of the first half of 2006 was done September 2006. The objective of the PETS is to track expenditures from Ministerial Headquarters to Regions, Districts and Facilities, as well as to assess the quality of service delivery in the communities.

2. EXPANDED PROGRAMME ON IMMUNIZATION

2.1 EPI within the Health Sector

The Expanded Programme on Immunization (EPI) was initiated by the World Health Assembly through the World Health Organisation and the United Nation Children Fund (UNICEF) as an intervention Programme to address the six childhood Killer Diseases; Tuberculosis, Diphtheria, Pertussis, Tetanus, Poliomyelitis and Measles. The Programme was formally launched in Bo in 1978, and included all four antigens for children and Tetanus Toxoid for pregnant women and Women of Child Bearing Age (WCBA).

The EPI Programme first started on a small scale in the 1960s. Between 1967 and 1970 Sierra Leone became part of the West African smallpox Eradication/Measles Control Programme. During this period the Endemic Disease Control Unit (EDCU) located in Bo was responsible for giving vaccination in mobile teams. Subsequently, the teams added immunization against Cholera (1972) and Yellow Fever (1975).

EPI is one of the frontline public health programmes under the Directorate of Primary

Health Care (PHC) within the Ministry of Health and Sanitation. Because of the high infant and under five-mortality rate EPI Programme is also linked with other public health programmes such as Malaria (which is responsible for 30% of under fives deaths), Leprosy/Tuberculosis Control Programme, Integrated Management of Childhood Illness (IMCI) (Cholera and diarrhoea which is responsible for about 15% of deaths in children), Nutrition, Health Education Division, and the Directorate of Disease Prevention and Control.

In addition to the above childhood programmes, the Ministry's effort is complemented by a host of international agencies and Non-Governmental Organisations (NGOs) that are specifically health-oriented.

The NGOs play a crucial role in EPI Operations. Since most have means of transportation, they some times collect EPI materials and supplies from central level and deliver to the various EPI Facilities. These NGOs also assist in collecting and forwarding EPI returns to the DHMT on monthly basis. They further provide assistance for capacity building in the form of basic and refresher EPI training.

These Organisations meet regularly, on a monthly basis, to discuss maternal and child health problems encountered in their various districts of operation.

With the high intensity of activities and level of resources (human and financial) required to undertake the Polio Eradication Initiative (PEI), and other EPI activities, coordination of partners became essential. It was against this background that the Government through MOHS and partners established the Inter-Agency Coordinating Committee (ICC) for EPI.

2.2. Vaccines

The following vaccines are currently used in the National Immunization Programme of Sierra Leone: BCG, OPV, DPT, Measles, Yellow Fever and Tetanus Toxoid. New vaccines (Hepatitis B and Hib) will be introduced in a pentavalent (DPT-HepB/Hib) form in 2007 (see annex 1&2).

The targeted population for the period 2007 to 2011 is estimated based on a growth rate of 2% annual increase over the population as reported in the last census in 2004. (See annexe3).

2.3 Procurement of Vaccines and Other Supplies

All vaccines and other supplies intended for EPI are procured through UNICEF on a yearly basis; and are supplied to the programme in tranches.

2.4 Service Delivery

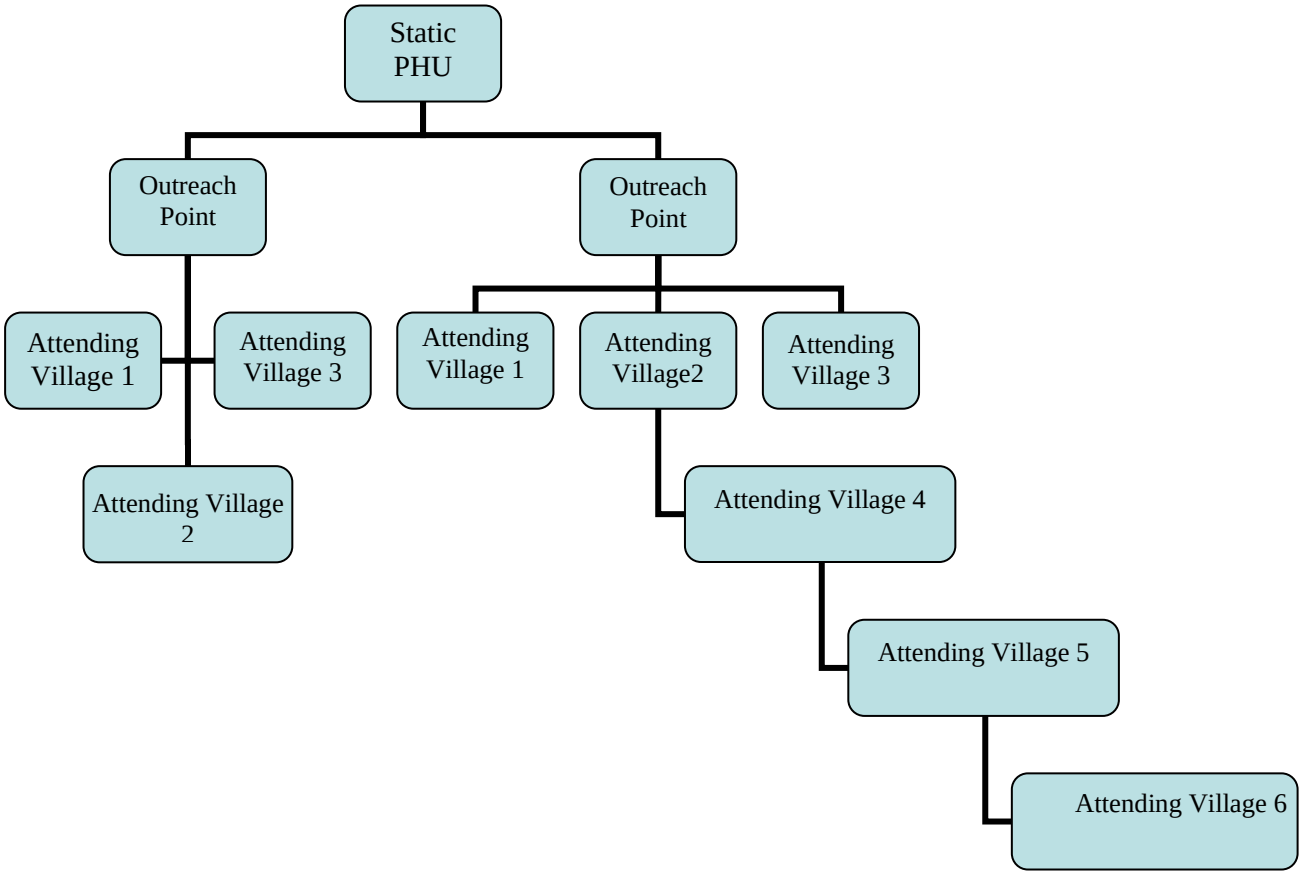
There are three main designated EPI services:

1) Static: Immunization services are provided in both public and private health facilities and temporary vaccination points where mothers and children are vaccinated on a daily basis.

2) Outreach**:** These services are held periodically in communities that are within the catchment area (5 km) of the health facility. At least, four outreach sessions should be conducted per month per PHU at four different locations to cover their target population.

3) Mobile Services**:** Planning for mobile team visits takes place at District level to places that are more than 5 kilometres from the nearest PHU and hard to reach communities. These visits are done in collaboration with NGOs in their operational areas who provide transport. Mobile teams often stay out in the field for at least five days at a time moving from community to community providing immunization and other health care services. This strategy has however not been sustained due to resource constraints.

Organisation of Delivery system at PHU Level.



In certain areas, communities may be as far as 8 km from the health facility.

2.5 Cold Chain

Cold chain quality is vital in ensuring that safe and potent vaccines are given to children. The potency of vaccines should be maintained and this requires vaccines to be stored in and distributed through a functioning and effective cold chain system.

Cold chain facilities are located in the country at three levels: national, district and PHU. Vaccines are issued from national to district level on quarterly basis and from district to PHU level on monthly basis, based on the set coverage target population.

The cold chain system particularly at PHU level where the cold chain equipment was old and the gas systems expensive to service and maintained, required replacement and review of strategy.

In 2003 a policy of solarization at District and PHU levels was implemented and 238 solar units were installed in seven districts. By end of September 2005, a total of 365 solar units have been installed in ten districts. Currently, there are a total of 530 solar units installed in major health facilities through out the country while additional 180 units have just been distributed for installation at various locations in the districts. The aim is to have all major health facilities solarized by the end of 2006 such that the cold chain is appropriate to minimise the risk of wastage on the introduction of the pentavalent vaccine in 2007.

3. IMMUNIZATION VISION AND STRATEGIC PLAN -2007 – 2011

Sierra Leone has experienced a ten- year period of devastating war that directly affected the entire population. The social sectors, particularly basic health services were most hit by the war.

To meet these challenges, the Ministry of Health and Sanitation (MOHS) has reviewed and revised existing policies and strategies. In the same vain, the MCH/EPI Programme has also decided to renew its commitment to deliver quality child survival initiatives and maternal health care services in Sierra Leone. This five-year comprehensive immunization vision and strategic plan which is in line with the Global Immunization Vision and Strategies (GIVS), Millennium Development Goals (MDGs) and the country's Poverty Reduction Strategy Paper (PRSP) is developed for these purpose. The plan will cover the period 2007 – 2011.

3.1 Situational Analysis

The process of developing this five-year plan began with a number of assessments of various components of the Programme by national staff with external technical support. A national meeting was held in which each representative had data, roles and responsibilities to contribute. A national workshop meant to increase the scope of participation and input into the final draft of the plan was held. Emphasis was laid on analysis of accelerated disease control initiatives, and on immunization system components. The findings and recommendations of the recent Programme review and findings and recommendations made during other assessment/evaluation exercises such as the Data Quality Audit (DQA), Sector Wide Barrier to Immunization, national census 2004 results, MICS 2005, Stop Transmission of Polio (STOP) and UNICEF mid-term review 2005 have formed the basis of the plan.

Table 1: SWOT analysis by system components

Components	Strengths	Weaknesses	Opportunities	Threats
1. Service delivery	- Dedicated health staff at national, district and health facility levels - Very strong collaboration between MOHS, NGOs, WHO and UNICEF - Contribution by communities to wards the provision of clinic structures/buildings for MCH/EPI services - Availability of continuous supply of vaccine in the last 12 months (no stock-out) - Existence of a defaulter tracing mechanism - Steady progress in immunization coverage figures from 1990- July 2005. Attained high coverage rates Polio SIAs. - Integration of Vitamin A into routine immunization.	- Low DPT3 coverage (64%). - High Dropout rates (15%). - Non-estimation of wastage rates. - Inadequate number of trained staff particularly at service delivery level - Poor defaulter tracing. - Insufficient community involvement in the planning and implementation of routine immunization services - Low staff morale/low salary - High staff attrition rates - Irregular outreach and needed mobile services	- The return of peace and government authority in all parts of the country - Active participation of some of the NGOs in routine and supplemental immunization service delivery - Support from GAVI and other partners - PRSP and debt relief freeing up more public funds.	- Existence of competing attractive job markets both within and abroad - Physical barriers in the form of Riverine and Mountainous areas (making 40% of the population inaccessible).
Surveillance	- Existence of a National Surveillance Officers/Coordinator - Existence of two Surveillance Officers in each districts - Existence of Surveillance Focal persons in many of the PHUs (10 per district in 9 of the districts and 15 per district in Kenema. Bo, Bombali, and Western Area - Case-based surveillance established for some of the priority diseases (AFP, Measles, NT, YF). - Strong non Polio AFP rate of 2.2/100,000 persons <15 years of age. Two stool samples collected within 14 days of onset of paralysis (93 %.) - Timeliness and completeness of reporting 87% and 95% respectively.	- No functional laboratory for the diagnosis of Measles and Yellow Fever in country - No case based investigations for Measles and Yellow Fever - IDSR not fully implemented	- Existence of the WHO Country Epidemiologist/EPI focal person and 4 WHO Surveillance Officers - NGO participation in surveillance in their respective areas of operation	- Risk of imported cases of vaccine preventable diseases (Poliomyelitis, Measles, Yellow Fever from neighbouring countries such as Liberia and Guinea Conakry - Lack of transport facilities for the transportation of Yellow Fever blood samples for laboratory analysis in Abidjan. Ivory Coast.

SWOT analysis by system components (Contd.)

Components	Strengths	Weaknesses	Opportunities	Threats
Vaccine supply and quality	- Existing capacity to forecast vaccine needs at National, District and Health facility levels - Proper storage facilities at National, district and in the majority (75%) of the health facilities - Observance of the principles of stock monitoring and/or rotation at National, district and health facility levels - Existence of other assessment authorities such WHO/UNICEF at country level - Existence of a system for the regular checking of Expiry dates at National, district and health facility levels - All vaccines utilized by the National EPI Programme comes from WHO/UNICEF approved sources	- Limited monitoring of vaccine wastage at National, district and health facilities - Inadequate capacity at district and health facility levels to calculate wastage rates - Proper vaccines storage facilities not available in about 5% of health facilities	- WHO/UNICEF serve as regulatory authorizes - NGO contribution to vaccine supply and quality	Unstable/increasing Global Vaccine demands and prices
Cold chain and logistics	- Existence of guidelines on: . Vaccine and equipment management . Injection safety/safe disposal and destruction of EPI injection waste materials - Presence of an up to date cold chain equipment distribution list. - Existence of a Cold Chain and Vaccine emergency plan - Availability of adequate supplies, equipment and consumables at district and health facility levels - Existence of a monitoring mechanism for supplies, equipment and consumables during	- Lack of guidelines on transport - Lack of spares for solar units - Inadequate number of incinerators	- WHO/UNICEF support - GAVI support - Presence of in-country technical hands and NGOs familiar with solar technology. -Decentralization, with potential to ensure regular funding support for maintenance	- Theft of solar panels

SWOT analysis by system components (Contd.)

Components	Strengths	Weaknesses	Opportunities	Threats
Cold chain and logistics	supervision at district and health facility levels - All EPI refrigerators and freezers are CFC free units - Solarization of health facilities in all 13 districts - Availability of trained solar technicians in all districts - Existence of adequate storage facility at national and district levels			
Advocacy and communication	- Existence of district Social Mobilization Coordinator (DSMC) in all districts - Strong political commitment - Quarterly ICC Meetings are held - Active community involvement and participation in SIAs - Existence of communication structures at National and district levels - Providing feedback to communities through periodic meetings organized by health staff	- No communication focal person for EPI at Central level - Lack of advocacy and communication plan - No active community involvement in the planning, implementation and monitoring of routine immunization activities - Limited utilization of the Mass and electronic Media in routine EPI activities - Limited Government funding for Advocacy and Communication in routine EPI - Faulty VHF radio units.	- Strong WHO/UNICEF support for social mobilization activities particularly during SIAs - Existence of both Mass and electronic Media facilities in the country - Availability of mobile phone network in all districts - Involvement of private sector in EPI activities - Existence of private business outfits as potential partners in EPI	- Limited Donor/Partner support for Advocacy and communication in routine EPI. - Media charges for child survival (including EPI) activities

SWOT analysis by system components (Contd.)

Components	Strengths	Weaknesses	Opportunities	Threats
Management	- Existence of a National Health Policy that addresses the needs of the un-served and the underserved populations as well as equity - Priority health interventions for the country - The coordination of multi and bilateral agencies as well as the NGOs - Existence of a National Health Action plan with an accompanying budget - Decentralisation of PHC services including EPI - Flexibility to adjust/change plans according to existing events - Providing information on policy changes to district and health facility staff - Staff at district and health facility levels receive regular feedbacks on performance - Information is use to plan and/or make adjustments - National level coordinates the planning implementation and monitoring of service provision in the Public sector - National level coordinates support provided by partners - National level conducts periodic evaluation to assess progress towards the attainment of goals and objectives	- No annual operational plans at health facility level - Inadequate private sector involvement and coordination in routine immunization activities - Inadequate supportive supervisory visits and/or reports by the national and district levels	- Donor/multi/bi-lateral support - Active involvement of some NGOs in routine immunization services	- Existence of competing job markets both within and abroad

SWOT analysis by system components (Contd.)

Components	Strengths	Weaknesses	Opportunities	Threats
Financial sustainability	- Financial Sustainability Plan developed - Existence of a system for the enumeration of health staff - Existence of Government budget line for the purchase of routine vaccines and injection safety materials	- No community based financing mechanism in place - Limited/lack of sustainable financing mechanism for EPI routine/traditional vaccines	- Partner Advocacy/Encouragement in exploring the vaccine independent initiative - GAVI Funding available	- Worsening Global Economy - Political instability
Human resource and Institutional strengthening	- Availability of dedicated and committed health staff at all levels - Staff salaries are regularly received at all levels - Existence of a supervisory checklist used by national and district staff - Increased number of service delivery points. - National and district supervisors provide technical and administrative support to health facility staff - Twenty-six (26) Technicians trained on solar refrigeration systems installation and maintenance	- Inadequate trained manpower and over dependence on volunteers at PHU level - Insufficient/irregular supportive supervisory visits by the national and district supervisors - Inadequate number of operating/functional health facilities - Delay in the absorption of newly qualified personnel into the civil service - High staff attrition rate - Ineffective staff appraisal system - Low staff morale	- Strong WHO/UNICEF partnership - Available GAVI support	- Existence of a competitive job market both within the country and abroad - Low/lack of employment

Table 2: Key recommendations from previous evaluations and assessments

Name and year	Main recommendations	Objectives required for the new plan
Stop Transmission Of Polio (STOP) team assessment (2005)	- Expand active surveillance - Improve documentation and written guidelines - Improve on supportive supervision - Provide incinerators	- By 2011, IDSR would have been implemented in all 13 districts
National assessment of system wide barriers to immunization (2004)	- Expand Public-Private Partnership for immunization services	
Financial Sustainability Plan (FSP) (2004)	- Reduce wastage - Reduce drop out - Increase coverage	- By 2011, wastage rate of re-constituted antigens would have been reduced to 30% and below, and all other antigens to 10% and below. - By 2011,dropout rate from all antigens would have been reduced to 10% and below. - By 2011, national DPT3/Penta3 coverage would have increased from current 64% to 90%, and achieved at least 80% coverage in every district
UNICEF Mid-Term review 2005	-Increase out-reach/mobile activities to hard to reach areas country wide - Provision of transportation (motorbikes/bicycles) - Integrated Soc. Mob around EPI/ interpersonal communication for completion of immunisation doses	

3.2 Mission statement:

Provide equitable access for children and women of childbearing age (WCBA) to existing and new vaccines, and other interventions that lead to reduction of morbidity and mortality in Sierra Leone.

3.3 Goal:

Reach integrated fully immunized child coverage of 80%, and WCBA TT2+ coverage of 75% to reduce maternal and child ill-health, disability and deaths attributable to vaccine preventable diseases.

Table 3: National priorities, objectives and milestones; regional and global goals, and order of priority

Description of problems and other national priorities	National objectives	Milestones	Regional and global goals (until 2010)	Order of Priority
1. High Drop-out rate	By 2011, dropout rate would have been reduced from 15% to 10% and below.	**2007**: Reduced to 15% **2008**: Reduced to 13% **2008**: Reduced to 12% **2009**: Reduced to<=10% **2010**: Reduced to<=10%	By 2010 or sooner all countries will have routine immunization coverage at 90% nationally with at least 80% coverage in every district	High
2. High wastage rate	By 2011 wastage rate of BCG would have been reduced to 30% and below, other re-constituted antigens to 10% and below, and pentavalent to 5% and below.	**2007**: 45% ; 20% ; 5% **2008**: 40% ; 15% ; <5% **2009**: 35% ; 10% ; " **2010**: 30% ;<10% ; " **2011** <30% ;<10% ; "	"	High
3. Low coverage	By 2011, all 13 districts would have achieved Penta3 coverage of at least 80%.	**2007:** 84% **2008:** 86% **2009:** 88% **2010**: 90% **2011:** 92%	"	High
4. Introduce pentavalent vaccine	By 2007, Pentavalent (DPT/HepB/Hib) vaccine would have been introduced in all 13 districts	**2006;** **1st Qrt:** Prepare implementation plan **2nd Qrt:** Initiate vaccine procurement **3rd Qrt:** Review/adaptation of materials **4th Qrt:** Training/Soc. Mob & distribution **2007:** Nation wide Introduction of Pentavalent vaccine	By 2005, 50% of the poorest countries with high disease burdens and adequate delivery systems will have introduced Hib vaccine.	High
5. Achieve Polio free certification status	By 2008, Sierra Leone would have been certified a polio free State.	**2007**: Presentation to RCC **2007**: RCC Field visit **2008**: Defence by country **2008:** Certification	By 2005, the world will be Certified polio-free	High

National priorities, objectives and milestones; regional and global goals, and order of priority

Description of problems and other national priorities	National objectives	Milestones	Regional and global goals (until 2010)	Order of Priority
6. Low measles immunization coverage	By 2011, measles immunization coverage would have been increased to at least 80% in all 13 districts	**2007:** 86% **2008:** 88% **2009:** 90% **2010**: 93% **2011:** 95%s	-Measles elimination in all countries of the region by 2010. (WHO/European region) - 90% reduction in infant mortality by 2010 compared to 2000	High
7. Yellow fever coverage not equal to measles coverage	By 2008, YF coverage would have been equal to measles coverage in all districts	**2007:** 7 districts achieve equal coverage **2008:** 13 districts	By end 2004, at least 80% countries already giving YF vaccine will have YF coverage same as Measles.	Medium
8. Low coverage for TT2+ non pregnant	By 2011, TT2+ coverage among WCBA would have increased from 16% to at least 75%	**2007:** 60% **2008:** 70% **2009:** 73% **2010:** 76% **2011:** 79%	By 2010 or sooner all countries will have routine immunization coverage at 90% nationally with at least 80% coverage in every district	High
9. Enhance national immunization advocacy and communications	By 2011, % of advocacy and communication activities funded would have increased from 15% to 80%	**2007:** 30% **2008:** 45% **2009:** 60% **2010:** 70% **2011:** 80%		High
	By 2008, all 13 districts would have developed and implementing advocacy and communication's plans on EPI	**2007:** EPI communication plan developed **2008:** 13 districts implementing communication plan		High

National priorities, objectives and milestones; regional and global goals, and order of priority

Description of problems and other national priorities	National objectives	Milestones	Regional and global goals (until 2010)	Order of Priority
10. Strengthen disease surveillance	By 2011, IDSR would have been implemented in all 13 districts	**2007:** Train health care staff on IDSR **2007:** IDSR implemented in 13 districts		High
11. Ensure availability of potent Vaccines and other supplies	By the end of 2007, all health facilities conducting EPI services will be reporting no stock-out of potent vaccines and other supplies	**2007:** No stock-out of vaccines at all levels		High
12. Financial sustainability	By 2011, national funding for Immunisation activities would have increased by 15% per year to at least 75%	**2007:** 15% **2008**: 30% **2009:** 45% **2010:** 60% **2011:** 75%		High
13. Low Health workforce especially at PHU level	By 2008, all vacant PHU posts would have been filled and sustained with MOHS employees	**2007:** 60% vacant posts filled **2008:** 100%		High
14. Injection Safety	By 2009, all health facilities providing EPI services will be practicing injection safety according to national guidelines	**2007**: 58% health facilities **2008**: 80% **2009:** 100%	By the end of 2003, all countries would use only auto-disable syringes for Immunization.	High

Table 4: Strategies and key activities

A: Service delivery

Objectives	Strategies	Key Activities
1. By 2011, all 13 districts would have achieved Penta3 coverage of at least 80%.	Strengthening of outreach	1. Develop Micro-plans for outreach
		2. Conduct regular outreach services
	Establishment of service-community link	3. Conduct Stakeholders meeting for participation
	Public-Private Partnership	4. Train Private staff and provide them with vaccine and tools
	Reaching hard-to- reach areas	5. Conduct monthly mobile visits wit other Programmes, health NGOs and CBOs to reach areas
	Supportive supervision	6. Conduct monthly/quarterly monitoring and supervision of integrated Programme implementation
	Monitoring and use of data for action	7. Conduct regular data analysis for action at all levels
		8. Conduct National bi-annual programme reviews/ assessments, and monthly district meetings
	ITN distribution with routine immunisation	9. Develop joint plan with malaria programme
		10. Distribute bed nets with routine immunisation
2. By 2008, Sierra Leone would have been certified a polio free State.	Ensuring functionality of Polio Eradication Committees	11. Support Polio Eradication committees
	Maintenance of standard AFP surveillance documentation	12. Monitor AFP surveillance database and district reporting
	Apply all strategies as in objective 1	
3. By 2011, measles immunization coverage would have been increased to at least 80% in all 13 districts	Conduction of SIAs	13. Conduct measles follow up campaign for <5 in 2009
	Integration with other interventions	14. Include Vit. A and de-worming in measles SIA
	Apply all strategies as in objective 1	

A: Service delivery

Objectives	Strategies	Key Activities
4. By 2011, TT2+ coverage among WCBA would have increased from 16% to at least 75%	Conduction of SIAs in high risk areas	15. Conduct TT SIAs in high risk districts for WCBA
		16. Conduct TT immunization in schools
	Apply all strategies as in objective 1	
5. By 2007, Pentavalent (DPT/HepB/Hib) vaccine would have been introduced in all 13 districts	Capacity building	17. Additional training of health staff on Pentavalent vaccine
	Advocacy with decision makers	18. Sensitise politicians and opinion leaders
	Change of policy	19. Review EPI policy to include use of Pentavalent vaccine
	Social mobilisation and Programme communication	20. Introduce key messages on Pentavalent into routine
6. By 2008, YF coverage would have been equal to measles coverage in all districts	Implementation of RED strategy	21. Monitor YF coverage in every district
7. By 2011, dropout rate would have been reduced from 15% to 10% and below.	Strengthening of defaulters Tracing	22. Trace defaulters through home visits
	Strengthening of outreach services as in objective 1	

B: Advocacy and communications

Objectives	Strategies	Key Activities
8. By 2011, % of advocacy and communication activities funded would have increased from 15% to 80%	Advocacy with decision makers	23. Sensitize politicians and opinion leaders
	Strengthening of ICC	24. Expand ICC membership to include other partners for better integration
	Greater NGO and private sector involvement	25. Conduct yearly resource mobilisation functions with the private sector, NGOs and other health partners
9. By 2008, all 13 districts would have developed and implementing advocacy and communication's plans on EPI	Development and implementation of communication plans	26. Identify communication officer for EPI at national level
		27. Districts develop communication plan to include key messages on RI, SIAs, outreach, dropout and vaccine wastage
		28. Districts implement communication plans

C : Surveillance

Objectives	Strategies	Key Activities
10. By 2008, IDSR would have been implemented in all 13 districts	Implementation of IDSR	29. Active surveillance in every districts
		30. Open at least 10 additional reporting sites in every district
		31. Monitor active sites
	Introduction of community-based surveillance	32. Sensitize and orientate community health agents including traditional healers
	Establishment of AEFI monitoring system	33. Train health workers on AEFI
		34. Include AEFI in national database for district monitoring
		35. Monitor reporting on AEFI
	Establishment of a Public Health Laboratory (PHL)	36. Equip Identified PHL
		37. Conduct refresher training for Laboratory staff

D: Vaccine supply, quality and Logistics

Objectives	Strategies	Key Activities
11. By 2011 wastage rate of BCG would have been reduced to 30% and below, other re-constituted antigens to 10% and below, and pentavalent to 5% and below.	Implementation of a vaccine management system	38. Develop vaccine management information system
		39. Train staff on the use of vaccine management system
12. By the end of 2007, all health facilities conducting EPI services will be reporting no stock-out of potent vaccines and other supplies	Availability of vaccines at all levels at all times	40. Estimate vaccines and injection supplies need and procure taking note of lead time
		41. Quarterly and monthly distribute vaccines and other logistics to districts and PHUs
	Strengthening of distribution network	42. Procure vehicles, motor bikes, bicycles, boats office equipment and other capital equipment for EPI activities
		43. Ensure road worthiness of vehicles and motor bikes; and maintenance other capital equipment
	Solarization of cold chain	44. Provide additional solar cold chain in

		every district
		45. Conduct refresher training for cold chain technicians
	Replacement and maintenance of cold chain equipment	46. Repair faulty cold chain equipment
		47. Procure cold chain equipment and spare parts
13. By 2009, all health facilities providing EPI services will be practicing injection safety according to national guidelines	Availability of injection safety materials in every district	48. Sustain vaccine bundling policy in every district.
		49. Report on district use of injection supplies
	Establishment of network of incinerators and waste management system	50. Construct 170 additional incinerators at CHCs and hospitals.
		51. Establish immunisation waste collection/management systems
		52. Construct burning pits for CHPs and MCHPs

E: Programme Management

Objectives	Strategies	Key Activities
14. By 2011, national funding for Immunisation activities would have increased by 15% per year to at least 75%	Integration of planning into national budgeting processes	53. Create a specific budget line in MOHS for vaccines purchase
		54. Build financial planning and management capacity.
	Resource mobilisation	55. Hold round table conferences with public and private sectors to mobilize resources
15. By 2008, all vacant PHC posts would have been filled and sustained with health employees	Development of recruitment plan with budget	56. Train health care staff to fill vacant posts
		57. Employ staff to fill vacant posts
	Institutional strengthening and capacity building	58. Support international training for 4 EPI staff per year
		59. Conduct MLM training
		60. Support study tours and conferences for 4 EPI staff per year
		61. Construct 25 Health centres per year
		62. Pay building overheads
		63. Conduct operational research and coverage survey
		64. Programme administration

Table 5: Activity timeline

Key Activities	2007	2008	2009	2010	2011
Service delivery					
1. Develop Micro-plans for outreach					
2. Conduct regular outreach services					
3. Conduct Stakeholders meeting for participation					
4. Train Private staff and provide them with vaccine and tools					
5. Conduct monthly mobile visits wit other Programmes, health NGOs and CBOs to reach areas					
6. Conduct monthly/quarterly monitoring and supervision of integrated Programme implementation					
7. Conduct regular data analysis for action at all levels					
8. Conduct National bi-annual programme reviews/ assessments, and monthly district meetings					
9. Develop joint plan with malaria programme					
10. Distribute bed nets with routine immunisation					
11. Support Polio Eradication committees					
12. Monitor AFP surveillance database and district reporting					
13. Conduct measles follow up campaign for <5 in 2009					
14. Include Vit. A and de-worming in measles SIA					
15. Conduct TT SIAs in high risk districts for WCBA					
16. Conduct TT immunization in schools					
17. Additional training of health staff on Pentavalent vaccine					
18. Sensitise politicians and opinion leaders					
19. Review EPI policy to include use of Pentavalent vaccine					
20. Introduce key messages on Pentavalent into routine					
21. Monitor YF coverage in every district					
22. Trace defaulters through home visits					

B. Advocacy and Communication

Key Activities	2007	2008	2009	2010	2011
23. Sensitize politicians and opinion leaders					
24. Expand ICC membership to include other partners for better integration					
25. Conduct yearly resource mobilisation functions with the private sector, NGOs and other health partners					
26. Identify communication officer for EPI at national level					
27. Districts develop communication plan to include key messages on RI, SIAs, outreach, dropout and vaccine wastage					
28. Districts implement communication plans					

C. Surveillance

Key Activities	2007	2008	2009	2010	2011
29. Active surveillance in every districts					
30. Open at least 10 additional reporting sites in every district					
31. Monitor active sites					
32. Sensitize and orientate community health agents including traditional healers					
33. Train health workers on AEFI					
34. Include AEFI in national database for district monitoring					
35. Monitor reporting on AEFI					
36. Equip Identified PHL					
37. Conduct refresher training for Laboratory staff					

D. Vaccine Supply Quality and Logistics

Key Activities	2007	2008	2009	2010	2011
38. Develop vaccine management information system					
39. Train staff on the use of vaccine management system					
40. Estimate vaccines and injection supplies need and procure taking note of lead time					
41. Quarterly and monthly distribute vaccines and other logistics to districts and PHUs					
42. Procure vehicles, motor bikes, bicycles, boats office equipment and other capital equipment for EPI activities					
43. Ensure road worthiness of vehicles and motor bikes; and maintenance other capital equipment					
44. Provide additional solar cold chain in every district					
45. Conduct refresher training for cold chain technicians					
46. Repair faulty cold chain equipment					
47. Procure cold chain equipment and spare parts					
48. Sustain vaccine bundling policy in every district.					
49. Report on district use of injection supplies					
50. Construct 170 additional incinerators at CHCs and hospitals.					
51. Establish immunisation waste collection/management systems					
52. Construct burning pits for CHPs and MCHPs					

E. Programme Management

Key Activities	2007	2008	2009	2010	2011
53. Create a specific budget line in MOHS for vaccines purchase					
54. Build financial planning and management capacity.					
55. Hold round table conferences with public and private sectors to mobilize resources					
56. Train health care staff to fill vacant posts					
57. Employ staff to fill vacant posts					
58. Support international training for 4 EPI national staff per year					
59. Conduct MLM training					
60. Support study tours and conferences for 4 EPI staff per year					
61. Construct 25 Health centres per year					
62. Pay building overheads					
63. Conduct operational research and coverage survey					
64. Programme administration					

Table 6: Indicators for monitoring, supervision and evaluation

Objectives	Key indicators
1. By 2011, all 13 districts would have achieved Penta3 coverage of at least 80%.	Routine Penta3 coverage
	Proportion of districts with 80% or more Penta3 coverage
	Proportion of districts implementing RED strategy
	Number of integrated out reach services conducted per quarter
	Proportion of private practitioners delivering immunization
2. By 2008, Sierra Leone would have been certified a polio free State.	% of children under five reached with two doses of OPV
	Routine OPV 3 coverage
	Non- polio AFP rate per 100,000
	Proportion of districts with stool adequacy rate > 80%
	% completeness and timeliness of reporting
3. By 2011, measles immunization coverage would have been increased to at least 80% in all 13 districts	Routine measles coverage
	Proportion of children under five reached during SIAs
	% of districts detecting at least one suspected measles case
	% of suspected measles cases with blood samples collected
4. By 2011, TT2+ coverage among WCBA would have increased from 16% to at least 75%	% of WCBA immunized with TT2+
	Proportions of districts with TT elimination status > 1 cases per 1000
	Number of reported cases of tetanus
	Proportion of high risk districts where SIAs have been conducted

5. By 2007, Pentavalent (DPT/HepB/Hib) vaccine would have been introduced in all 13 districts	Number of districts that have introduced pentavalent
	DPT/HepB/Hib coverage
6. By 2008, YF coverage would have been equal to measles coverage in all districts	Measles and Yellow fever coverage
7. By 2011, dropout rate would have been reduced from 15% to 10% and below.	Dropout rate
	Proportion of districts with dropout rate of 10% and below
8. By 2011, % of advocacy and communication activities funded would have increased from 15% to 80%	% of funding received for advocacy and communication activities
9. By 2008, all 13 districts would have developed and implementing advocacy and communication's plans on EPI	Proportion of districts with advocacy plans and implementing it
10. By 2011, IDSR would have been implemented in all 13 districts	Availability of a public health laboratory in country
11. By 2011 wastage rate of BCG would have been reduced to 30% and below, other re-constituted antigens to 10% and below, and pentavalent to 5% and below.	Wastage rate
	Proportion of districts with wastage rates of 30% and below for re-constituted vaccines, and 10% below for other vaccines, and 5% and below for pentavalent
12. By the end of 2007, all health facilities conducting EPI services will be reporting no stock-out of potent vaccines and other supplies	Proportion of health facilities reporting stock-out of potent vaccines and other supplies
13. By 2009, all health facilities providing EPI services will be practicing injection safety according to national guidelines	Proportion of districts reporting on AD use
	Proportion of districts adhering to bundling
	Availability of AD needles and syringes and safety boxes
	Proportion of facilities using safe injection and waste disposal measures
14. By 2011, national funding for Immunisation activities would have increased by 15% per year to at least 75%	% of yearly national funding for vaccines
15. By 2008, all vacant PHU posts would have been filled and sustained with MOHS employees	Number of persons that under went basic MCH Aide Nurse training
	Number of vacancies filled with MOHS employed staff
	Number of health workers of various categories trained

Table 7: Annual Work plan 2007

Activities	Consolidated and Integrated activities	Where	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Unit Resp	Cost (USD)	Funds available (USD)		Short Fall (USD)
																	Govt	Partners	
Service delivery																			
1. Develop Micro-plans for outreach	Plans will be developed taking into account coverage levels/ routine status of all districts. Schedule micro planning workshops for districts, ensure inclusion of other routine antigens	National, District & PHU levels													NIP, DHMT, PHU				
2. Conduct regular outreach services	Include any established outreach site into plan; and fully support outreach services	District & PHU levels													PHU	**555,794**		**80,000**	**475,794**
3. Conduct Stakeholder meeting for participation	Identify private practitioners willing to participate and provide relevant orientation and support	National & District levels													NIP, DHMT				
4. Train Private staff and provide them with vaccine and tools		District level													DHMT				
5. Conduct monthly mobile visits with other programmes, health NGOs and CBOs to hard to reach areas	Coordinate logistics use and outreach visits with other programmes, health NGOs and CBOs	District level													DHMT, NGOs, CBOs				
6. Conduct monthly/quarterly monitoring and		National													NIP	**220,026**	**20,000**	**30,000**	**170,026**

Activities	Consolidated and Integrated activities	Where	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Unit Resp	Cost (USD)	Funds available (USD)		Short Fall (USD)
																	Govt	Partners	
supervision of integrated programme implementation		& District levels													DHMT				
7. Conduct regular data analysis for action at all levels	Provide logistics for regular data analysis at all levels	National & District levels													NIP DHMT PHU				
8. Conduct National bi-annual programme reviews/ assessments, and monthly district meetings	Schedule meetings to discuss progress, challenges and obstacles encountered in implementation of EPI and other child survival initiatives.	National & District levels													NIP DHMT	**51,000**		**46,244**	**4,756**
9. Develop joint plan with malaria programme	Schedule meetings and develop work plan with malaria programme and UNICEF to include bed net distribution with routine DPT (DPT/HepB/Hib in 2007 onwards), and with measles campaigns	National level													NIP, NMCP, DHMT PHU				
10. Distribute bed nets with routine immunisation		National & District levels													NIP, NMCP, DHMT PHU				
11. Support Polio Eradication Committees	Committee will meet to discuss AFP surveillance and other vaccine preventable diseases as prerequisite for polio eradication certification	National level													NIP, DPC, WHO				
12. Monitor AFP surveillance database and district reporting		National & District levels													NIP, DPC, WHO, DHMT				

Activities	Consolidated and Integrated activities	Where	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Unit Resp	Cost (USD)	Funds available (USD)		Short Fall (USD)
																	Govt	Partners	
13. Conduct TT SIAs in high risk districts for WCBA	Assess MNT/priority and the routine status of all districts, schedule micro planning workshops for priority districts, Include 2 doses of TT, Fefol, Vit A supplementation, and include district supervisory visits schedule.	National & District levels													NIP, UNICEF WHO, UNFPA, HKI, NIP, DHMT	**1,855,129**	**100,000**	**1,281,006**	**474,123**
14. Additional training of health staff on Pentavalent vaccine	Introduction of Pentavalent vaccines will require additional training for health staff, sensitisation of Leaders and review of EPI policy and messages	National & District levels													NIP, UNICEF WHO, DHMT				
15. Sensitise politicians and opinion leaders		National & District levels													NIP, UNICEF WHO, DHMT				
16. Review EPI policy to include use of Pentavalent vaccine		National level													NIP, UNICEF WHO, DHMT				
17. Introduce key messages on Pentavalent into routine		National & District levels													NIP, UNICEF WHO, DHMT				
18. Monitor YF coverage in every district	Monitor immunisation coverage including that for YF and Measles	National & District levels													NIP, DHMT				
19. Trace defaulters through home visits	Review records to trace defaulters, community sensitisation and home visits	District level													DHMT, PHU				

Activities	Consolidated and Integrated activities	Where	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Unit Resp	Cost (USD)	Funds available (USD)		Short Fall (USD)
																	Govt	Partners	
Advocacy and Communication																			
20. Sensitize politicians and opinion leaders	ICC membership will be expanded to include more stakeholders and will sensitise politicians and opinion leaders for more funding for EPI	National & District levels													NIP, DHMT				
21. Expand ICC membership to include other partners for better integration		National & District levels													NIP, DHMT				
22. Conduct yearly resource mobilisation functions with the private sector, NGOs and other health partners	Meetings, fund raising dinners round table conferences will be held with various stakeholders for resource mobilisation for EPI activities	National & District levels													NIP, DHMT	**2,000**		**2,000**	**0**
23. Identify communication officer for EPI at national level	Identified communication officer will support districts to conduct IEC/BCC needs assessment and develop communication plan; and monitor and supervise implementation. The plan will include key messages on strengthening the routine immunisation, drop out, wastages and SIAs	National level													NIP				
24. Districts develop communication plan to include key messages on RI, SIAs, outreach, dropout and vaccine wastage		National & District level													NIP, DHMT				
25. Districts implement communication plans		National & District levels													NIP, DHMT	**91,284**		**91,284**	**0**

Activities	Consolidated and Integrated activities	Where	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Unit Resp	Cost (USD)	Funds available (USD)		Short Fall (USD)
																	Govt	Partners	
Surveillance																			
26. Active surveillance in every districts	Health staff will be trained and provided with logistics to expand existing AFP surveillance network and increase the number of sites integrating Measles, YF and MNT active surveillance. Link result to district reports and database at national level. Involve communities in case detection and early referral	National & District levels													DPC, NIP, DHMT, WHO & Community	**186,599**		**186,599**	**0**
27. Open at least 2 additional reporting sites in every district		National & District levels													DPC, NIP, DHMT, WHO				
28. Monitor active sites		National & District levels													DPC, NIP, DHMT, WHO				
29. Sensitize and orientate community health agents including traditional healers		National & District levels													DPC, DHMT, WHO				
30. Train health workers on AEFI	Health workers will be trained on AEFI. District indicators in national database will include monitoring of AEFI, DPT/HepB/Hib, vit A, risk status for TT, vaccine stocks/suppliers and staff levels	National & District levels													NIP, DPC, DHMT, WHO				
31. Include AEFI in national database for district monitoring		National & District levels													NIP, DPC, DHMT, WHO				
32. Equip Identified PHL	Identified Lab will be equipped and staff trained to undertake additional responsibilities for investigation and confirmation of suspected cases of AFP,	National & District levels													DPC, WHO				
33. Conduct refresher training for Laboratory staff		National & District levels													DPC, WHO, NIP				

Activities	Consolidated and Integrated activities	Where	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Unit Resp	Cost (USD)	Funds available (USD)		Short Fall (USD)
																	Govt	Partners	
	Measles, YF, HIV, STIs, MNT and others																		
Vaccine Supply Quality and Logistics																			
34. Develop vaccine management information system	Vaccine management system developed will include tools for determining needs, usage, wastage, requisition, storage and distribution. Health staff will be trained on the use of the system	National & District levels													NIP, DHMT				
35. Train staff on the use of vaccine management system		National & District													NIP, DHMT				
36. Estimate vaccines and injection supplies need and procure taking note of lead time		National & District levels													NIP, UNICEF	**2,646,027**	**246,937**	**2,399,090**	**0**
37. Quarterly and monthly distribute vaccines and other logistics to districts and PHUs.		National & District levels													NIP, DHMT	**272,250**	**232,250**	**40,000**	**0**
38. Procure vehicles, motor bikes, bicycles, boats office equipment and other capital equipment for EPI activities	Develop vehicle replacement repairs and maintenance plan.	National level													NIP, UNICEF	**326,710**	**80,984**	**226,150**	**19,576**
39. Ensure road worthiness of vehicles and motor bikes; and		National & District levels													NIP, DHMT UNICEF	**123,714**	**42,146**	**12,000**	**69,568**

Activities	Consolidated and Integrated activities	Where	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Unit Resp	Cost (USD)	Funds available (USD)		Short Fall (USD)
																	Govt	Partners	
maintenance other capital equipment																			
40. Provide additional solar cold chain in every district	Cold chain requirement, repairs and replacement needs will be reviewed and findings included in the district database. Cold chain technicians will be trained to effect necessary repairs and maintenance. Cold chain overhead will be provided to ensure they function effectively	National & District levels													NIP, UNICEF				
41. Conduct refresher training for cold chain technicians		National & District levels													NIP, DHMT UNICEF				
42. Repair faulty cold chain equipment.		National & District levels													DHMT NIP	**402,821**	**50,000**	**130,705**	**222,116**
43. Procure cold chain equipment and spare parts		National & District levels													NIP, DHMT UNICEF	**300,818**		**20,000**	**280,818**
44. Sustain vaccine bundling policy in every district.	District utilisation of vaccines and injection materials will be included in the national and districts database. Vaccines security will be sustained by advocating a 15% increase in Govt budget allocation every year.	National & District levels													NIP, DHMT UNICEF				
45. Report on district use of injection supplies		National & District levels													NIP, DHMT				
46. Construct at least 4 additional incinerators per district at CHCs and hospitals.	Develop waste management plan to include training of staff, construction of incinerators, focal point identification, and immunisation waste collection	National & District levels													NIP, DHMT UNICEF	**179,500**			**179,500**
47. Establish immunisation waste collection/management systems		National & District levels													NIP, DHMT				

Activities	Consolidated and Integrated activities	Where	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Unit Resp	Cost (USD)	Funds available (USD)		Short Fall (USD)
																	Govt	Partners	
48. Construct burning pits for CHPs and MCHPs		National & District levels													NIP, DHMT, UNICEF	**6,038**	**6,038**		**0**
Programme Management																			
49. Create a specific budget line in MOHS for vaccines purchase	Costing estimate for existing, under used and new vaccines (Pentavalent) and other supplies will be made. Available information will then be forwarded for budgeting. Meetings, conferences and other functions will be held for resource mobilisation at national and district levels.	National & District levels													MOHS, MOF, L.Council (LC)				
50. Build financial planning and management capacity.		National & District levels													NIP, DMT, LC				
51. Hold round table conferences with public and private sectors to mobilize resources		National & District levels													NIP, DHMT, LC	**19,380**			**19,380**
52. Train health care staff to fill vacant posts	Annual training plan will be developed and used to train Health care staff to fill vacant posts. Staff will be supported to attend study tours and international conferences/ trainings including MLM course and workshops to upgrade knowledge and skills. Staff including newly enrolled will be paid their monthly salaries.	National & District levels													NIP, DHMT, LC	**125,692**	**50,000**	**62,635**	**13,057**
53. Employ staff to fill vacant posts		National & District levels													MOHS, MEST, LC	**820,377**	**820,377**		**0**
54. Conduct MLM training		National & District levels													WHO, MOHS, UNICEF	**40,000**		**40,000**	**0**
55. Support study tours and conferences for 4 EPI staff per year		National & District levels													WHO, UNICEF MOHS, Others	**51,000**			**51,000**
56. Construct 25 Health centres per year		District level													MOHS, WB,ADB, EU, others	**1,931,625**	**1,449,469**		**482,156**

Activities	Consolidated and Integrated activities	Where	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Unit Resp	Cost (USD)	Funds available (USD)		Short Fall (USD)
																	Govt	Partners	
57. Pay building overheads		National & District levels													MOHS/ LC	**519,802**	**519,802**		**0**
58. Conduct operational research and coverage survey		National & District levels													NIP, DHMT, WHO, UNICEF	**57,120**	**22,936**		**34,184**
59. Programme administration		National													NIP	**23,756**	**10,000**	**13,756**	**0**
GRAND TOTAL																**10,808,462**	**3,650,939**	**4,661,469**	**2,496,054**