Essential Package of Health Services

Primary Care: The Community Health System

Phase One

Ministry of Health & Social Welfare
Republic of Liberia
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Contents

Foreword

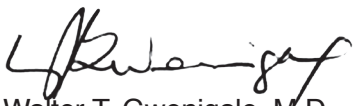
The Ministry of Health and Social Welfare has launched the Essential Package of Health Services (EPHS). In 2007 the Ministry established the Basic Package of Health Services (BPHS) with the ultimate intention of jumpstarting a health care delivery system for all Liberians. The BPHS became the cornerstone of the National Health Policy and Plan that was drafted and made operational in 2007. The BPHS established basic preventive and curative services needed to improve access and health care. By 2010, BPHS implementation demonstrated significant successes. For the first time in many years, Liberia's clinics, health centers and hospitals were given a set of standard services that they were expected to provide. The BPHS Accreditation, which measured the provision of all required services and systems, found consistent improvement in both government and partner-managed facilities. In 2009, approximately 35% of Liberia's government health facilities were implementing the BPHS. In 2010, this number increased to 80%, surpassing the national and Heavily Indebted Poor Countries (HIPC) targets by 10%. In 2011, this number again increased to 84%.

Over the past four years, we have established stronger delivery systems and seen great improvements in all counties in service delivery, especially in historically lower performing southeastern counties. There has been massive improvement in standardized medical services, health human resource development and supply chain management systems to ensure the acceleration of health care for all in Liberia.

I congratulate all of the organizations and individuals that were instrumental in attaining these achievements. There remains much to be done. As part of the 2011–2021 National Health Policy and Plan, it is critical that our long-term view not only expand the services available to all Liberians but also continue to improve and standardize our health care delivery systems in order to ensure quality health care for all Liberians. The Essential Package of Health Services (EPHS) which becomes the cornerstone of the new National Health Policy and Plan builds upon the successes of the BPHS implementation. It provides a more comprehensive set of services that strengthen key areas that continue to perform poorly in the current system and adds new services necessary to address needs at all levels of the health care system.

This EPHS is in two phases—the first phase covers the period 2011–2013, after which there will be a review and modification based on progress. To address Liberia's continuing high maternal and infant mortality rates, the first phase EPHS will place an increased emphasis on all maternal and child health services including child nutrition, adolescent health services, emergency services and communicable disease control. To ensure all Liberians are able to live healthy, productive lives, new services have been included focusing on early interventions (e.g., school health services), and vulnerable populations (e.g., prison health services, sexual and gender-based violence services, mental health services). Following evidence gathered during this phase of implementation, chronic disease care (e.g., reproductive cancers, non-communicable diseases, and tropical diseases) will be rolled out in phase two.

We therefore call on all stakeholders, including the private sector, to ensure the successful implementation of the EPHS which seeks to ensure that standardized services are available at all levels of care.



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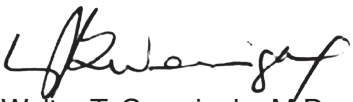

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Abbreviations

ACT	Artemisinin-based Combination Therapy
AFASS	Acceptability, Feasibility, Affordability, Sustainability, Safety
AFB	Acid-Fast Bacillus
AFP	Acute Flaccid Paralysis
AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Care
ART	Anti-Retroviral Therapy
BCC	Behavior Change Communication
BCG	Bacille Calmette-Guérin
BEmONC	Basic Emergency Obstetric and Neonatal Care
BPHS	Basic Package of Health Services
CDDs	Community Directed Distributors
CDTI	Community Directed Treatment with Ivermectin
CEmONC	Comprehensive Emergency Obstetric and Neonatal Care
CEO	County Education Officer
CHSWT	County Health and Social Welfare Team
CHV	Community Health Volunteer
DHO	District Health Officer
DOTS	Directly Observed Treatment Short Course
DHS	Demographic Health Survey
DMPA	Depot Medroxy-Progesterone Acetate (Depo-Provera)
EHT	Environmental Health Technician
EmONC	Emergency Obstetric and Neonatal Care
ENAA	Essential Nutrition Actions Approach
EPHS	Essential Package of Health Services
EPI	Expanded Program on Immunization
GBV	Gender-Based Violence
gCHV	General Community Health Volunteer
GOL	Government of Liberia
HCT	HIV Counseling and Testing
HFS	Health Facility Survey
HHP	Household Health Promoters
HIPC	Heavily Indebted Poor Countries
HIS	Health Information System
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
HPV	Human Papilloma Virus
IDSR	Integrated Disease Surveillance and Response
IEC	Information, Education and Communication
IHR	International Health Regulation
IMF	International Monetary Fund
IMNCI	Integrated Management of Neonatal and Childhood Illnesses
IPT	Intermittent Preventive Treatment
ITNs	Insecticide Treated Nets
IRS	Indoor Residual Spraying

IVM	Integrated Vector Management
JFKMC	John F. Kennedy Medical Center
LDHS	Liberia Demographic and Health Survey
LMIS	Liberia Malaria Indicator Survey
MAM	Management of Acute Malnutrition
MCH	Maternal and Child Health
MDA	Mass Drug Administration
MDG	Millennium Development Goal
MOE	Ministry of Education
MOHSW	Ministry of Health and Social Welfare
MPHP	Multi-Purpose Health Professional
MUAC	Middle Upper Arm Circumference
MVA	Manual Vacuum Aspiration
NACP	National AIDS Control Program
NCDs	Non-Communicable Diseases
NIDs	National Immunization Days
NGOs	Non-Governmental Organizations
NLTCP	National Leprosy and Tuberculosis Control Program
NMCP	National Malaria Control Program
NTDs	Neglected Tropical Diseases
OIC	Officer in Charge
OPD	Outpatient Department
ORS	Oral Rehydration Salts
ORT	Oral Rehydration Therapy
OTP	Outpatient Therapeutic Program
PEP	Post-Exposure Prophylaxis
PHC	Primary Health Care
PMTCT	Prevention of Mother-to-Child Transmission
RDT	Rapid Diagnostic Testing
RED	Reach Every District
RPR	Rapid plasma reagin
SARS	Severe Acute Respiratory Syndrome
SBAs	Skilled Birth Attendants
SGBV	Sexual and Gender-Based Violence
SIAs	Supplemental Immunization Activities
SOP	Standard Operating Procedure
SRH	Sexual and Reproductive Health
STH	Soil-Transmitted Helminthes
STIs	Sexually Transmitted Infections
TB	Tuberculosis
TTM	Trained Traditional Midwife
VCT	Voluntary Counseling and Testing
VVF	Vesico-Vaginal Fistula
WASH	Water Quality, Sanitation, Hygiene
WHO	World Health Organization

1.0 Introduction

The mission of the Ministry of Health and Social Welfare (MOHSW) is to reform and manage the sector to effectively and efficiently deliver comprehensive, quality health and social welfare services that are equitable, accessible and sustainable for all people in Liberia. One of the key tools to fulfill this mission has been the Basic Package of Health Services (BPHS). Developed in 2007, the BPHS was the first set of standardized criteria for health care provision in post-conflict Liberia. While significant progress has been made against the current package as defined by the BPHS, it is now time to strive for more comprehensive health care delivery in Liberia. The MOHSW therefore puts forth the following Essential Package of Health Services (EPHS) as part of the 10-year National Health Policy and Plan.

In 2009, accreditation scores showed that only 35% of the 349 government health facilities were implementing the BPHS, meaning that only 35% of government health care facilities had appropriate services, drugs and equipment to provide basic health care to the population. Detailed accreditation findings were used to target system and service improvements resulting in a significant improvement in 2010. Eighty percent of government facilities had implemented the BPHS, surpassing the 2010 national and International Monetary Fund (IMF) Heavily Indebted Poor Countries (HIPC) completion point target by 10%. In 2011, this number reached 84%.

While the implementation of the BPHS has been successful in achieving an agreed upon package of services, it has proved incomplete for the full needs of health care delivery. The BPHS does not take into account people presenting at health facilities for treatment of some common illnesses such as non-communicable and neglected tropical diseases, amongst others. Additionally, recent studies show that approximately 40% of the population still lives more than one hour walk from a health facility. Therefore, the key principles for inclusion of services into the EPHS are based on a Primary Health care (PHC) model with emphasis on high-impact, evidence based interventions; integration of services; standardization of protocols, guidelines and procedures; phased expansion of services towards a more comprehensive package; and consideration of urban and rural differences.

The EPHS sets ambitious goals for service availability and access over a 10-year period. It will be rolled out initially for a 3-year period, giving specific attention to the most critical morbidity issues facing Liberia. After this introductory period, the package implementation will be evaluated for further expansion and strengthening. The EPHS will provide an improved referral system between primary, secondary and tertiary care health facilities to create a more holistic health care system that provides higher quality services to all Liberians. Health promotion, being a crosscutting issue, shall be strengthened at all levels through improved coordination between the Health Promotion Division of the MOHSW and the County Health and Social Welfare Teams.

1.1 Purpose of the EPHS

The EPHS serves four basic purposes:

1. To expand the standardized primary package of health services;
2. To provide equitable access to essential hospital services;
3. To strengthen the service delivery network;
4. To provide the basis for operational plan development.

1.2 Relationship between the BPHS and EPHS

The BPHS established the framework to begin improving basic facility health service provision in a post-conflict setting. Building upon successful BPHS implementation and strong health sector development, the EPHS now includes scaled-up and additional services for all levels of health care delivery to provide more comprehensive services to the Liberian people. The EPHS also focuses on strengthening certain key areas that continue to perform weakly in the current system.

As a result of Liberia's high maternal and infant mortality rates, the EPHS places a stronger emphasis on all maternal and child health services. This includes: access to skilled, facility-based delivery services; appropriate malaria prophylaxis and treatment during pregnancy; prevention of mother-to-child transmission (PMTCT) of HIV; maternal and infant nutrition; and family planning services, among others.

Additional services to be scaled up include child nutrition, response to sexual and gender-based violence, adolescent health services and mental health services. New services include the detection and treatment of reproductive cancers, non-communicable diseases and neglected tropical diseases as well as school health, eye health and prison health. This more comprehensive approach addresses health care needs at all levels of the health care system.

1.3 Levels of care and system organization

Consistent with the national health policy, the EPHS will maintain three levels of care: primary, secondary and tertiary. These will be provided through four health care sub-systems as described below. County Health & Social Welfare Teams (CHSWTs) and implementing NGO partners are responsible for staffing facilities based on each facility's workload. Staffing should consider reasonable, weekly shift requirements and ensure the appropriate number of clinicians and general health providers to provide full services during daily operating requirements as well as emergency, labor and delivery services 24 hours each day and outreach programs for the facility's catchment population.

Primary Care

Community Health System

This system is the main primary care provider. It includes:

a. Community Level Services

   A standard set of outreach, health promotion and referral services will be provided for communities more than one hour walk (5km) from the nearest health facility by: Community Health Volunteers (CHVs). CHVs include: Household Health Promoters (HHPs), Trained Traditional Midwives (TTMs) and general Community Health Volunteers (gCHVs).

b. Primary Health Care (PHC) Clinic Level 1

   The PHC Level 1 Clinic covers isolated clustered communities with a population of up to 3,500. Each PHC Level 1 is, at minimum, expected to be open 8 hours each day between Monday and Friday.

c. PHC Clinic Level 2

   The PHC Level 2 Clinic covers a catchment population of 3,500 to 12,000 and provides outreach services (see d) to the portions of their catchment population outside of a 5km radius. Each PHC Level 2 is, at minimum, expected to be open 8 hours each day between Monday and Friday.

d. Integrated Outreach Programs

Based at the PHC Level 2 Clinic, they provide basic primary care, at least weekly, to isolated catchment communities that are more than one hour walk (5km) from the clinic.

Secondary Care

District Health System

This system is the first provider of secondary care, focusing on maternal and child health care. It receives referrals from the Community System. The Health District System has a catchment population of 25,000 to 40,000 and has either of the following:

e. Health Centers

Health Centers receive referrals from PHC Level 1 and 2 Clinics in the district; have up to 40 beds and a laboratory. Each Health Center is expected to be open 24 hours every day.

f. District Hospitals

Where a dense catchment population, large network of clinics and far distance from a county hospital warrants it, Health Centers may upgrade to District Hospitals with higher clinical capacity, including emergency surgery and Comprehensive Emergency Obstetric and Neonatal Care (CEmONC). Each District Hospital is expected to be open 24 hours every day.

County Health System

This system provides expanded services within the secondary level of care. It consists of:

g. County Hospitals

Each of the 15 counties has a County Hospital that will receive referrals from the Community and District Health Systems. The County Hospital provides general surgery, pediatrics, general medicine, obstetrics and gynecologic services (including CEmONC). It should have 100 or more beds with an intensive care unit, a laboratory and basic radiology services. To ensure that hospital services are used within a referral system, the County Hospital should have a detached outpatient facility for the provision of primary care. Each County Hospital is expected to be open 24 hours every day.

Tertiary Care

National Health System

This system is the main provider of tertiary level care. It consists of two types of hospitals: Regional Hospitals and the National Hospital, John F. Kennedy Medical Center (JFKMC).

h. Regional Hospitals

Regional Hospitals will serve a catchment area of 3–5 counties and receive referrals from County Hospitals. Each Regional Hospital will have a bed capacity of 100 or more. These facilities will play an active role in capacity building of the County Hospitals and serve as training sites complementary to the National Referral Hospital. They may upgrade from a County Hospital, in which case they will continue to receive referrals from the district level. Regional Hospitals provide additional specialized services and are expected to be open 24 hours every day.

i. John F. Kennedy Medical Center

JFKMC, the National Referral Hospital, is the specialized referral facility and teaching hospital—in collaboration with Regional Hospitals—for physicians, sub-specialists and allied health professionals. It will have 500 or more beds with advanced specialists, laboratory and radiology capabilities.

1.4 Criteria for Inclusion

Representatives from community, district, county, national and international organizations contributed to determining the priority service delivery areas and concepts detailed within this document. The MOHSW ultimately applied four criteria to all of the services suggested for the EPHS:

1. Their potential contribution to reducing the burden of morbidity and mortality in Liberia (considering both epidemiological and socio-economic burden);
2. The availability of interventions that have been demonstrated to be high-impact, safe and effective;
3. The feasibility of implementing those interventions given Liberia's current resources and constraints as well as those forecasted for the next ten years;
4. The potential for sustaining the activity in the medium to long-term.

1.5 Phased implementation Approach

The 10-year EPHS will be implemented in two phases:

Phase 1 (Years 1–3)

- Strengthen and expand maternal and child health (MCH) services, emergency health services and communicable disease prevention and control;
- Introduce mental health services, school health services, prison health services, and eye health services;
- Assess and plan for the prevention and treatment of neglected tropical diseases (NTDs) and non-communicable diseases (NCDs);
- Strengthen essential support services;
- Introduce quality assurance programming.

Phase 2 (Years 4–10)

- Strengthen and expand mental health services, school health services, prison health services and eye health services;
- Introduce NTD and NCD services;
- Strengthen and expand quality assurance programming.

1.6 Community Health System: Program Areas and Components

The EPHS Community Health System addresses eleven service delivery areas, and five priority support systems, that are most critically needed to improve the health status of the Liberian population, especially its most vulnerable groups, over the next three years. The intention is to implement the EPHS as an indivisible set of services and activities available for each level of health care service delivery. CHSWT operational plans will define the series of programs and activities that will be necessary to address the infrastructure, human resource, equipment and supply, and management needs of the system. The EPHS for Liberia consists of the following service delivery areas:

- Maternal and Newborn Health Services
- Child Health Services
- Reproductive Health Services
- School Health Services
- Prevention and Control of Communicable Diseases
- Prevention and Control of Neglected Tropical Diseases (NTDs)
- Prevention and Treatment of Non-Communicable Diseases (NCDs)
- Eye Health Services
- Emergency Health Services
- Mental Health Services
- Prison Health Services

and support systems:

- Leadership and management
- Pharmaceutical services
- Diagnostic services
- Facility infection prevention and control
- Health Management Information Systems (HMIS)

2.0 Essential Health Services

2.1 Maternal and Newborn Health Services

From 2000 to 2007, the maternal mortality rate had increased from 578 deaths per 100,000 live births to 994 deaths per 100,000 live births (Liberia Demographic and Health Survey (LDHS), 2007). A professional health worker assists only 46% of women during birth and only 37% of deliveries take place in a health facility (LDHS, 2007) and the percentage of women who have already given birth or are pregnant by the age of 19 is 62% (Liberia Malaria Indicator Survey (LMIS), 2009).

In an effort to reduce maternal and newborn mortality and achieve Millennium Development Goal (MDG) targets, the Government of Liberia (GOL) has declared maternal and newborn deaths a reportable event within 48 hours. The next LDHS survey will capture the impact of many BPHS initiatives currently under implementation and measure their success. These initiatives include expansion of emergency obstetric and neonatal care; increasing the number of skilled health workers for labor and delivery; improving maternal nutrition; improving referral systems and implementing death audits.

The EPHS continues many of these initiatives: expanding emergency obstetric care to all facilities, not just health centers and hospitals; expanding PMTCT services; improving staffing practices and numbers at facilities to ensure skilled birth attendants are available to all communities 24 hours every day; focusing on maternal and child nutrition and continuing to audit maternal deaths.

2.1.1 Antenatal Care (ANC)

A high percentage (79%) of women attend the first ANC visit (Demographic Health Survey (DHS), 2007). The institutional delivery rate, however, is still very low with a national average of 37% (LDHS, 2007) and even lower rates in some rural areas. The EPHS mandates a minimum of four ANC visits between the end of the first trimester and full term. These are generally adequate to monitor the progress of the pregnancy and detect and manage any complications as they arise. They are sufficient to provide tetanus toxoid immunizations, iron and folic acid supplementation and administer prophylaxis for malaria and other conditions. ANC visits also provide an opportunity to initiate family planning counseling; talk with the mother about healthy diet and lifestyle during pregnancy; help the family make appropriate decisions about where she should deliver; and make necessary preparations for delivering at a health facility. All pregnant mothers will have a home-based mother's record card on which all relevant information is recorded.

With a greater emphasis on facility-based deliveries, CHVs provide a critical link for women and communities to facility-based services. As part of the EPHS, CHVs play an important role by ensuring ANC visits; assisting women to prepare birth preparedness plans (refer to the Focused ANC Package available through MOHSW Family Health Division); identifying early signs of pregnancy and labor complications; ensuring appropriate breastfeeding/complementary feeding practices; educating the public about family planning and encouraging PMTCT testing and follow-up visits.

PMTCT services reduce the rate of HIV transmission and provide HIV-exposed infants with early access to diagnosis and life-saving treatment. The number of facilities offering PMTCT services to HIV-positive mothers increased from 28 in 2008 to 156 in 2010. Under the EPHS, the National AIDS Control Program (NACP) plans to further increase access by providing services at all levels of the health care system in order to cover 80% of HIV-positive pregnant women by 2015. In facilities, ANC as well as Labor and Delivery staff are trained to

provide counseling and testing for pregnant women so they can learn their HIV status and, if HIV-positive, take appropriate measures to reduce the risk of transmission. After delivery, facilities are trained to immediately connect HIV-exposed infants with diagnosis services and care and treatment if required.

Malaria infection in pregnancy is an important contributor to low birth weight. Prevention of infection through Intermittent Preventive Treatment (IPT), with Sulphadoxine and Pyramethamine, early in the second and third trimesters has proven to reduce these risks considerably. IPT is considered standard of care and health care providers shall therefore provide it to all pregnant women. The best strategy for malaria prophylaxis in pregnancy is to prevent its transmission. The EPHS promotes the consistent use of Insecticide Treated Nets (ITNs) by pregnant women. MOHSW encourages distribution of ITNs at ANC visits for pregnant women and children under five.

2.1.2 Labor and Delivery Care

The EPHS places greater emphasis upon facility-based delivery and therefore requires that all mid-level health workers have midwifery skills and will continue to increase the number of Skilled Birth Attendants (SBAs) at all facility levels. All health facilities shall provide labor and delivery services. All deliveries in health facilities will be monitored using a partograph to detect complications early. The EPHS will continue to expand and increase the number and quality of Basic and Comprehensive Emergency Obstetric and Neonatal Care sites to ensure that complicated pregnancy cases are managed appropriately. Outreach services will be linked to the closest health facility for delivery services through referral. Trained Traditional Midwives (TTMs) will serve as the link between communities and health facilities.

2.1.3 Emergency Obstetric and Neonatal Care (EmONC)

EmONC is divided into two categories: Basic Emergency Obstetric and Neonatal Care (BEmONC) and Comprehensive Emergency Obstetric and Neonatal Care (CEmONC). All health facilities shall provide delivery and EmONC at their appropriate level of care. To encourage institutional deliveries and management of obstetric complications, rural health facilities are required to develop innovative mechanisms for night and weekend services in order to maintain an on-call system.

BEmONC	CEmONC
PHC Clinics and Health Centers	**All Hospitals**
• IV/IM Antibiotics • IV/IM Oxytoxics • IV/IM Anticonvulsants • Manual removal of placenta • Assisted vaginal delivery • Removal of conception retained products • Essential newborn care	All seven BEmONC functions plus: • Cesarean Section • Blood Transfusion

2.1.4 Postpartum Care

During postpartum, life-threatening complications such as eclampsia, puerperal sepsis, gestational diabetes and secondary hemorrhage may occur. Anemia is common as a result of the pregnancy and blood loss at delivery. Additional conditions may require advice or management. The EPHS encourages at least two

postpartum visits for new mothers within the first 6 weeks after delivery: immediately after delivery and at the end of the first week. A professional health worker will assess: her general condition, nutritional status, the presence of anemia, and the condition of her uterus and breasts. This is the best time to discuss routine monthly immunization for the child during year one, the benefits of breastfeeding, contraception and birth spacing and to encourage adequate consumption of a nutrient-rich diet.

2.1.5 Newborn Care

Four interventions contribute significantly to newborn survival rates: keeping the baby dry and warm, cutting and caring for the umbilical cord in a clean way, resuscitating the baby who is not breathing well and timely initiation of breast feeding within the first hour of life. These skills will be taught to all professional health workers. A contributing factor to many neonatal deaths is low birth weight. This includes premature and small-for-dates babies. The most important intervention in both cases is to keep the baby warm and provide frequent feeds. More severe problems mostly arise with very low birth weight babies (less than 1500 grams). They and their mothers should be referred from the primary health system to the secondary health system for more advanced support and management of further complications that may arise.

2.1.6 Maternal and Newborn Nutrition

A woman's nutritional status has important implications for her health as well as the health of her newborn. Malnutrition in women results in reduced productivity, increased susceptibility to infections, slow recovery from illness, and heightened risks of adverse pregnancy outcomes. Maternal nutritional status is also associated with babies being born with low birth weight. Low birth weight babies have a significantly higher risk of mortality and being malnourished.

At the community level, nutrition assessments using Middle Upper Arm Circumference (MUAC) measurement should be conducted. At the facility level, the first ANC visit should include a hemoglobin test to screen for anemia and all ANC visits should include weight for height measurements. Women who are found to have severe malnutrition should be referred to the secondary level in order to be enrolled in a supplementary feeding program until six months after delivery. Anemia is a common problem amongst pregnant women and routine supplementation with iron and folate is important to reduce its prevalence during pregnancy and the postpartum period. In order to increase the access and coverage, distribution of iron-folate supplements will be decentralized at community level through gCHVs. Vitamin A shall also be given to the mother to benefit the baby through the breast milk.

While exclusive breastfeeding is high in children during the first two months of life (80%), it drops quickly to less than 50% by 3 months of age and to only 33% by 5 months of age (2010 Comprehensive Food Security and Nutrition Survey). With the goal of changing social norms and correcting this trend, health care workers shall encourage immediate initiation of exclusive breastfeeding for the first six months of life, followed by the introduction of appropriate types and amounts of complementary foods with continued breastfeeding for up to 2 years.

In the case of mothers who are HIV positive, if they are able to meet the World Health Organization (WHO) criteria of Acceptability, Feasibility, Affordability, Sustainability and Safety (AFASS), they shall be encouraged to exclusively formula feed their babies to prevent mother-to-child transmission. If, after social work assessment and consultation, some or all of the AFASS criteria cannot be met, the mother shall be advised to exclusively breastfeed for the first six months of life according to the guidelines for HIV-negative mothers. While this increases the risk of HIV transmission, it is necessary to ensure the sustained adequate nutrition of the child. All mothers, especially those who are HIV positive, shall be actively discouraged from mixed breast and formula feeding due to the increased risk of morbidity including HIV transmission to the baby.

2.2 Child Health Services

In Liberia, 29% of under-five deaths occur during the first month of life and 35% occur within the first year. The infant mortality rate has declined from 144 deaths per 1,000 live births in 1986 to 71 deaths per 1,000 live births in 2007 and the under-five mortality rate has followed the same trend, declining from 220 deaths per 1,000 live births in 1986 to 110 deaths per 1,000 live births in 2007 (LDHS, 2007). The Liberian National Strategy for Child Survival was developed in line with the MDGs and aims to surpass the under-five mortality reduction goal by two-thirds. To this effect, the EPHS emphasizes the importance of Integrated Management of Neonatal and Childhood Illnesses (IMNCI), the Expanded Program on Immunization (EPI), child nutrition programs and malaria control, amongst others.

2.2.1 Expanded Program on Immunization (EPI)

The EPHS acknowledges current weaknesses with routine immunization coverage, which stands at 51%. The program will strengthen the Reach Every District (RED) approach to ensure that all children have access to immunization services. Integrated facility-level micro plans addressing EPI and other outreach services will be developed as part of each CHSWT operational plan. CHVs will help to ensure that children within their catchment communities are fully immunized.

The “Well Baby Clinic” concept is being reintroduced into the EPHS. During ANC and postpartum visits, mothers will be educated on visiting the “Well Baby Clinic” monthly after delivery for routine immunization and growth monitoring until the child is one year old. Routine immunization and growth monitoring services shall be provided at all health facilities. National Immunization Days shall be organized with community support to complement routine immunization coverage.

2.2.2 Integrated Management of Neonatal and Childhood Illness (IMNCI)

IMNCI is a management approach that comprehensively addresses all the main causes of childhood illness and death. Community-based management of acute malnutrition will be integrated as part of IMNCI protocol. It recognizes that a child may have multiple concurrent illnesses and takes advantage of each consultation as an opportunity to immunize the child and assess their nutritional status. The first and most important step in the IMNCI process is ensuring that parents and caretakers are trained to recognize when a child is sick and know where to go for treatment. CHVs shall serve as a link between the community and the health facilities by directing caregivers to the most appropriate facility.

PHC Level One and Two Clinics shall manage children with moderate illness who do not need inpatient monitoring and care. Caretakers should be taught when to return for follow up and how to recognize the warning signs that a child’s condition is worsening and requires immediate medical attention. All facilities shall initiate malaria treatment within 24 hours, manage acute respiratory infections, provide Oral Rehydration Therapy (ORT) when needed and be able to teach caretakers the proper administration of Oral Rehydration Salts (ORS) or medication. All severe cases should be referred to secondary and/or tertiary care facilities.

2.2.3 Child Nutrition

Nutrition Assessment, Growth Monitoring and Promotion

General CHVs shall conduct quarterly rapid nutrition assessment of all children in their communities using MUAC and refer all malnourished children to health facilities for assessment and enrollment in a therapeutic or supplementary feeding program. Growth monitoring, including accurate measurement of the weight and height of children, will be conducted during “Well Baby Clinic” visits and at every subsequent facility visit for

children up to age 3 years. Weight for age shall be plotted in a growth chart and used to track the child's progress and identify children in need of nutritional interventions.

Preventing Malnutrition: Essential Nutrition Actions

Malnutrition, caused by inadequate dietary intake and disease and exacerbated by poverty and poor access to health care, continues to be a major public health problem in Liberia. Chronic malnutrition is endemic in Liberia with a rate of 41.8% in children under-five (Comprehensive Food Security and Nutrition Survey, 2010). In an effort to reduce this trend, CHSWTs shall utilize the Essential Nutrition Actions Approach (refer to the ENAA Training Package available through MOHSW Nutrition Division) to provide an integrated package of preventive nutrition actions including education on appropriate infant and young child feeding and provision of micronutrient supplementation at all service delivery points. Emphasis will be placed on the use of local foods in education materials and supplementary feeding programs.

Micronutrient Supplementation

Micronutrient deficiencies arise from insufficient intake of foods rich in vitamins and minerals and infections that impair gastrointestinal absorption of these nutrients. Low-cost, high-impact interventions, such as supplementation and food fortification now exist to combat specific micronutrient deficiencies of serious health concern in Liberia, namely, vitamin A, iron and iodine deficiency. The EPHS emphasizes Vitamin A supplementation and deworming every 6 months for children under five. Efforts will be intensified through community promotion and legislature, to ensure the attainment of the Universal Salt Iodization goal of 90% of households consume adequately iodized salt. To address the high prevalence of anemia in children, home fortification of food, by adding micronutrient powder supplement, will be initiated as part of the ENAA package.

2.3 Reproductive Health Services

MOHSW recognizes that access to reproductive health is essential to the full realization of every person's fundamental right to health. Building on the basic reproductive services currently provided for family planning, Sexual and Gender-Based Violence (SGBV) and adolescent reproductive health, the EPHS will expand reproductive health services in phase two of implementation to address reproductive cancers and Vesico-Vaginal Fistulas (VVF).

2.3.1 Family Planning and Counseling

Contraceptive prevalence is low with an 11% utilization rate for any method of contraception (including modern and traditional methods) and an unmet need of 36% (LDHS, 2007). Some of the factors contributing to low utilization include cultural beliefs, poor access to health services, and low male involvement in family planning. The EPHS requires health care workers at all levels to provide family planning and counseling services during ANC and postpartum follow-up visits as well as integrate it into health care screenings and other OPD consultations. The EPHS emphasizes the uptake of family planning services through innovative strategies and by training general CHVs to conduct counseling, distribution of family planning commodities and appropriate administration of contraceptive methods.

2.3.2 Adolescent Reproductive Health Care

By age 15, approximately 11% of Liberian girls become pregnant and by age 19, 62% are pregnant (LMIS, 2009). Twenty-six percent of adolescent pregnancies are unintended while 30% of pregnancies among adolescents end in unsafe abortions (RAAP, 2009). Adolescents are more likely to engage in unprotected sex, which can result in pregnancy or Sexually Transmitted Infections (STIs), including HIV. School attendance by

girls is still lower than for boys and dropout rates are higher for girls. This directly affects their reproductive health decision making, such as the use of various family planning methods and ability to negotiate safe sex. The EPHS focuses on strengthening Information Education and Communication (IEC)/Behavioral Communication for Change (BCC) programs on Sexual and Reproductive Health and SGBV by targeting adolescents and youth. The EPHS School Health Services addresses adolescent and reproductive interventions for students. CHSWTs will partner with other government sectors and development partners to establish youth sexual and reproductive health programs at the community level. Health facilities are required to provide youth friendly services as required in the Adolescent Health Standards (available through MOHSW Family Health Division).

2.3.3 Response to Sexual and Gender-Based Violence (SGBV)

SGBV is defined to include any physical, sexual or psychological violence occurring not only in the family but also within the general community. This includes sexual harassment at the work place and trafficking of women and children for prostitution. Forty-five percent of women in Liberia have experienced SGBV (DHS, 2007). Through the EPHS, CHVs will be trained to encourage victims to seek medical care and primary health care workers will be trained to provide counseling, examine clients and initiate treatment, particularly Post-Exposure Prophylaxis (PEP) to rape victims, as well as make timely referrals.

2.3.4 Detection and Management of Reproductive Cancers

Phase One of EPHS implementation will include research to establish the baseline prevalence of breast, cervical and prostate cancers and design appropriate interventions to be implemented in Phase Two. Phase One will include the introduction of Human Papilloma Virus (HPV) vaccination for junior and senior secondary school age girls.

2.3.5 Prevention and Treatment of Obstetric Fistula

Vesico-vaginal fistula (VVF) is a common complication associated with vaginal delivery in Liberia. The EPHS strengthens ANC, delivery practices, adolescent and reproductive health care as part of the strategy to reduce obstetric fistulas. CHVs will educate the community about the causes and prevention of obstetric fistulas and encourage sufferers to seek appropriate management. PHC Clinics will refer all fistula cases to the tertiary level of care.

2.4 School Health Services

To increase and improve health services for children and adolescents, MOHSW will collaborate with the Ministry of Education (MOE) to implement a standard package of school health services as part of the EPHS. CHSWTs and County Education Officers (CEOs) will partner to provide:

2.4.1 Immunization Screening

Immunization screening is being reintroduced upon enrollment for pre-school children. Teachers and school authorities shall ensure that all preschool children are fully immunized before enrollment. Children who are not fully immunized will be referred to health facilities to receive their missed vaccinations. During supplemental immunization activities, teachers and school authorities shall ensure that all children in their institutions re-

ceive the necessary booster doses. As a part of school immunization activities, Human Papilloma Virus (HPV) vaccination will be introduced for junior and senior secondary school females for cervical cancer prevention.

2.4.2 Micronutrient Supplementation

Vitamin A shall be provided every six months to pre-school children. Iron and folate shall be provided weekly to secondary school children. This will be complemented by health education to promote use of iodized salt.

2.4.3 Deworming

Systematic deworming shall be done for pre-school children every six months.

2.4.4 Eye, Ear, Dental and Skin Care

CHSWTs and CEOs will organize preventative eye, ear and dental screening once a year, beginning at enrollment in grade one. Teachers shall be trained to identify skin lesions and refer to the health facility when necessary.

2.4.5 Reproductive Health Care

Reproductive health counseling shall be continued with the MOE Life Skills education and enhanced through peer education in secondary schools and youth-centered family planning programs. This will target family planning, HIV/AIDS/STI prevention, hygiene and sanitation and adolescent reproductive and sexual health.

2.5 Prevention and Control of Communicable Diseases

Communicable Disease Prevention and Control has been for many years the bedrock of public health. The EPHS emphasizes both prevention and curative treatment. The EPHS shall seek to successfully interrupt and contain the spread of communicable disease clusters and outbreaks, identify trends in the community and provide education regarding transmission and prevention.

2.5.1 STIs/HIV/AIDS Prevention and Control

The HIV prevalence in Liberia is 1.5% in the general population (ages 15-49 years) (LDHS, 2007). An antenatal sentinel surveillance survey conducted in 2008 showed a prevalence of 4.0% among pregnant women attending ANC in Liberia. As of 2010, the MOHSW has scaled up HIV and AIDS service delivery points to 176 HIV counseling and testing (HCT) sites, 156 PMTCT sites and 29 HIV Care and Treatment sites. The Anti-Retroviral Therapy (ART) coverage among HIV-positive persons eligible for ART has increased to 41% as of December 2010.

In addition to increasing access to HIV services, under the EPHS, increasing the quality of care is also a priority. National mentoring, increased laboratory access, and retention promotion activities will all be critical to improving the quality of care of HIV services. A national HIV mentoring program has been established to support clinicians on-site with diagnosis, treatment, recordkeeping and greater integration of HIV and TB services. To address the limited access to diagnostic services, emphasis will be placed on increasing the availability of CD4, hematology and chemistry testing for all HIV-positive patients. With many HIV-positive patients dropping out of the care and treatment program, efforts to increase home-based care services,

provide nutritional support, and increase defaulter patient tracing will all serve to increase patient retention in care and treatment.

Finally, the early recognition and treatment of sexually transmitted infections (STIs) is an important element in reducing the risk of HIV transmission. Currently, 437 health facilities offer STI screening and treatment, and these sites treated 217,252 episodes of STI in 2010. The EPHS promotes regular inquiries about STI symptoms at ANC and general outpatient visits, using the syndromic method of STI management. Going forward, the focus will be on integrating STI services into general outpatient services as well as promoting screening of all STI patients for HIV.

For information on PMTCT, please refer to the Section 2.1.1 Antenatal Care.

2.5.2 Prevention and Control of Tuberculosis (TB) and Leprosy

The National Leprosy and Tuberculosis Control Program (NLTCP) coordinates all TB activities. The estimated incidence rate for all forms of TB is 272 per 100,000 persons and the smear positive is 118 per 100,000 persons. Twenty-two percent of TB patients are co-infected with HIV (NTLCP, 2009). The EPHS therefore emphasizes the integration of TB and HIV activities throughout Liberia.

NLTCP supports DOTS (Directly Observed Treatment Short Course) services in 333 government and private TB treatment centers and 2 specialized TB hospitals in the country—TB Annex Hospital (Montserrado) and Ganta Rehabilitation Hospital (Nimba). However, drug distribution and microscopy services cover only 62% and 27% respectively of all functioning health facilities. The EPHS will therefore expand access to improved diagnosis and high quality DOTS, strengthen community-based DOTS programs and work towards integrating TB/HIV services into the overall health system.

Leprosy continues to be a public health problem in Liberia. The WHO set an elimination target prevalence of less than 1 in 10,000. Liberia had a prevalence of 3.61 per 10,000 and an incidence rate of 11.8 per 100,000 in 2009. The trend of cases is steadily increasing with 410, 414 and 415 cases in 2007, 2008 and 2009 (NTLCP, 2009). The response to the leprosy situation had previously been provision of care in the leprosarium. However, the provision of care is now through integrated leprosy services at all facilities in all counties. Activation of mechanisms for early detection, treatment and referrals are being addressed in the EPHS through increased training of health workers and improved capacity to manage complications. Increased sensitization and awareness about leprosy, through community education by CHVs, will reduce stigma associated with the disease. The EPHS hopes to eliminate leprosy during Phase One of implementation.

2.5.3 Prevention and Control of Malaria

Malaria is endemic to Liberia. Malaria accounts for 35% of outpatient department attendance and 33% of in-patient deaths (Health Facility Survey, 2009). The EPHS emphasizes three major strategies to improve malaria prevention and treatment:

1. Improved treatment through scaled up availability and use of Artemisinin-based Combination Therapy (ACT) within 24 hours at all levels of the health care delivery system. All government and private health facilities will be required to use ACT as the first-line treatment for malaria.
2. An Integrated Vector Management approach, which will provide long-lasting ITNs through mass distribution to all family units as well as targeted distribution to pregnant women and children under five. The strategy will continue targeted Indoor Residual Spraying of households and will consider other vector management strategies for environmental control to achieve maximum results.
3. Increased support for advocacy, health education and Behavior Change Communication (BCC) at all levels of the health care delivery system as well as emphasizing the role of the gCHVs in malaria control and prevention activities.

2.5.4 Prevention and Control of Diseases with Epidemic Potential

Disease epidemics are fueled by factors common to developing countries such as displacement, environment mismanagement, and frequent exposure to risk factors. Epidemic diseases have a significant impact on an already weak health system and if not controlled, can spread quickly across borders. Liberia has established a mechanism for early detection, confirmation, characterization and prompt information exchange through implementation of a comprehensive Integrated Disease Surveillance and Response (IDSR), the county Emergency Preparedness and Response Plans and the revised International Health Regulation (IHR) framework.

MOHSW has established a weekly and monthly surveillance reporting system on diseases of epidemic potential to prompt early warning, investigation, preparedness and response. These diseases include Acute Flaccid Paralysis (AFP), measles, acute watery diarrhea (possibly cholera), bloody diarrhea, meningitis, neonatal tetanus, H1N1, rabies, yellow fever, hemorrhagic fever (lassa fever), SARS and guinea worm. During Phase One and Phase Two implementation of the EPHS, interventions will focus on mapping and risk assessment to identify areas at risk of epidemic-prone diseases, strengthen early warning systems, strengthen laboratory capacity and identify new factors which facilitate the emergence and transmission of epidemic prone diseases through operational research.

2.6 Prevention and Treatment of Neglected Tropical Diseases (NTDs)

NTDs are a group of preventable and treatable diseases that have received little attention to date. They tend to affect the most vulnerable members of society. During Phase One of EPHS implementation, current interventions will continue. The most common NTDs in Liberia as well as the strategies to treat endemic populations are described below:

2.6.1 Onchocerciasis

Onchocerciasis is prevalent in 14 out of 15 counties with more than 1.1 million Liberians at risk. The EPHS will utilize the program existing through the Community Directed Treatment with Ivermectin (CDTI) approach for annual Mass Drug Administration (MDA) by CHVs.

2.6.2 Lymphatic Filariasis

Lymphatic Filariasis is prevalent in 13 out of 15 counties (Immuno-Chromatic Test Survey, 2010). The CDTI strategy will be utilized to administer annual MDA of Albendazole and Ivermectin to the target population in 13 counties. Elimination is targeted for 2020.

2.6.3 Shistosomiasis

Schistosomiasis has a prevalence of 20% or greater in Bong, Lofa, and Nimba. In endemic communities, with prevalence rates less than 50%, MDA with Praziquantel will target children 5 -14 years. In endemic communities with prevalence rates above 50%, MDA with Praziquantel will target all residents 5 years and older.

2.6.4 Soil-Transmitted Helminthes (STHs)

STHs, including Ascaris lumbricoides, hookworms and trichurias are common intestinal parasites, prevalent in all 15 counties. The highest prevalence of 50-100% is found in Maryland, Grand Kru, Sinoe and Rivercess. MDA with Mebendazole will target children 12-59 months, school age children, adolescents and women of childbearing age.

2.7 Prevention and Treatment of Non-Communicable Diseases (NCDs)

NCDs are those diseases that are not caused by biological agents, such as viruses, bacteria and fungi, and cannot be shared from one person to another. They represent a growing public health problem in Liberia with potentially large social and economic burdens. NCDs such as hypertension, stroke, cardiovascular disease, diabetes, cancer, chronic respiratory diseases, sickle cell anemia and age-related eye disease are amongst the leading causes of morbidity and mortality; however, interventions and sensitization have been limited. Hypertension and Stroke were amongst the ten major causes of visitation to health facilities in Liberia (HMIS, 2008). MOHSW will conduct a sub-nationwide survey during Phase One of the EPHS in order to determine the prevalence of diabetes, hypertension, obesity and other NCDs. This will inform the design of appropriate NCD guidelines and intervention strategies.

2.8 Eye Health Services

The prevalence of blindness in Liberia is estimated at 1% with an estimated total of 35,000 blind people. Cataract is the major cause of blindness in Liberia, with an estimated backlog of 17,500 people or 50% of the total blind population. An additional 3% of the total population (10,500 people) suffer from visual impairment (WHO, 2002). Due to the high burden of morbidity caused by blindness, and its bi-directional link to poverty, CHSWTs shall work with new and existing partners to ensure that eye health services are integrated into all county health systems including school health services during Phase One.

2.9 Emergency Health Services

Emergency health care services are required to save lives and prevent long-term disability. The EPHS therefore requires that all primary health facilities be able to perform basic lifesaving interventions. CHSWTs shall be responsible for ensuring that every facility within their county has an appropriate system for triaging emergency patients according to their medical needs and the level of care provided at that facility. They shall work with government agencies and private partners to ensure that efficient ambulance and or transfer services are available to transport severe cases to secondary or tertiary care facilities when needed. The triage system shall accommodate patients referred from other facilities for assessment on an urgent or emergent basis. The availability of advanced hospital services may vary depending on their geographic location. Those closer to more advanced hospitals may refer more than those that are located in distant regions of the country. In particular, the management of head injury, acute abdomen and abdominal trauma may need urgent intervention before it is possible to arrange transfer to a more advanced facility. CHSWTs shall ensure that facilities that cannot rapidly transfer such cases are appropriately equipped and staffed to manage these patients until transfer can be arranged.

2.10 Mental Health Services

Recent data indicates significant mental health and substance abuse needs in Liberia. While national prevalence studies have not been completed, various multi-county epidemiological studies point to high rates of major depression (40%), exposure to sexual violence (42%–73%), post-traumatic stress disorder (44%), and high rates of substance abuse (12%–44% among female and male ex-combatants respectively).

Although the BPHS highlighted the need for mental health services, the implementation was challenging, and after five years, there is only one inpatient psychiatric facility in Montserrado and three other outpatient facilities in Bong Grand Gedeh and Montserrado counties. Only 18% of health care facilities had clinicians trained to provide mental health services (BPHS accreditation, 2011).

The EPHS will ensure that staff are trained to deliver quality mental health services and that facilities have the necessary psychotropic drugs in order to expand the availability and access of mental health services in primary care. By the end of 2015, 181 mental health clinicians (RNs and PAs) will be trained. At the primary level, PHC Clinics will operate mental health and substance abuse services led by mental health clinicians that screen, diagnose and provide treatment and referral appropriate at their level of training. Social workers will be required to follow up with patients in their homes and communities. In-service programs for teachers will be put in place to enable them to identify problems that might have mental health significance in school age children and make appropriate referral to facilities designed to address such problems. Families will be encouraged to be involved in care and management. CHVs will be trained to conduct public awareness programs and recognize signs of mental illness and make referrals to the appropriate health facilities.

2.11 Prison Health Services

Before the development of Liberia's new National Health and Social Welfare Policy, prison health in Liberia was mainly provided by infrequent NGO outreach activities. Pre-trial detainees and prisoners had no access to primary care and limited access to emergency health care. Unhygienic, overcrowded living and sleeping conditions and limited exposure to outdoor areas exacerbated inmates' previous health problems and put them at serious risk for newly acquired illnesses. Correctional staff, visitors and communities exposed to these conditions or living in close quarters with former inmates were at a significantly increased risk for preventable communicable disease outbreaks.

MOHSW will collaborate with the Ministry of Justice to emphasize health maintenance through adequate nutrition, hygiene and sanitary living conditions. Health education and counseling will be provided to teach inmates the origin of disease, how to maintain basic health in prisons and the potential psychological impact of detention on their general health condition. Preventative and curative health services must also be made available. As part of the EPHS, CHSWTs shall be responsible for the improvement/creation and maintenance of prison clinics at the two largest prisons (Monrovia Central Prison and Zwedru National Palace of Corrections) and sick bays at prisons housing 50 or more inmates. For prisons with populations and capacity less than 50 persons, CHSWTs shall develop weekly prison outreach programs to be staffed by professional health workers.

All prisoners will receive a physical and mental health evaluation at entry, have access to basic first aid on site, primary health care and, when needed, emergency and specialized hospital treatment. CHSWTs shall also make accommodation for the adequate provision of women's health services within the prison health system. Details of the specific responsibilities of prison clinics, sick bays and outreach programs are available in the standard operational procedures for the prison health system.

3.0 Essential Primary Care Support Systems

Improving quality is a cross-cutting issue for all delivery systems. Quality assurance will therefore be a part of county planning and implementation, from services delivered to clients to the management procedures necessary for the efficient operation of systems. The MOHSW will focus on four aspects of quality assurance:

1. Institutionalizing quality assurance systems;
2. Improving patient safety;
3. Enhancing clinical practice;
4. Improving management systems.

All government and private facilities as well as social welfare institutions are required to establish quality improvement programs. Partnerships shall be formed with stakeholders at all levels of the health delivery system, including regulatory and governing bodies, to foster collaboration for adherence.

3.1 Leadership and Management

Leadership and management at the primary level are essential for EPHS implementation. At the community level, gCHVs shall be supervised by trained Environmental Health Technicians (EHTs). EHTs shall be part of each District Health Team and responsible for organizing the implementation of all EPHS-designated community level activities within their catchment area. At PHC Clinics, an Officer in Charge (OIC) will run the facility. S/he will be responsible for ensuring the implementation of the EPHS and county operational plan at his/her facility. S/he shall be supervised by the District Health Officer (DHO), who is supervised by the County Health Officer (CHO).

It is required that every OIC hold weekly meetings with health facility staff to discuss facility implementation of the EPHS. These meetings shall be authenticated by minutes. The EPHS emphasizes monthly review meetings at District Level and quarterly review meetings at County Level to review the status of EPHS implementation.

3.1.1 Minimum Staffing Requirements:

The EPHS encourages the use of flexible staffing patterns based on each facility's workload. At PHC Level 1 Clinics, a multipurpose health professional and a multipurpose general staff are required for regular shifts. A PHC Level 2 Clinic must have an OIC who is either a Physician Assistant, Nurse Midwife, Registered Nurse, or Certified Midwife. Additionally, a PHC Level 2 Clinic should have at least 1 Certified Midwife, 1 Lab Tech or Assistant and 1 Dispenser, 1 Recorder and 1 Nurse Aide. CHSWTs and partners are expected to use innovative means to ensure 24-hour services for maternal and child emergencies.

3.2 Pharmaceutical Services

MOHSW, being cognizant of the problem posed by stock-outs and realizing the need to improve supplies (medical and non-medical), developed a ten-year supply chain master plan. This plan emphasizes the effective, efficient and reliable procurement and distribution of supplies vital for the delivery of the EPHS.

The County Pharmacist is the primary staff responsible for effective implementation of pharmaceutical services in the county. As such, s/he is responsible for designing a supply chain plan to ensure that all primary

facilities receive a regular supply of medical and non-medical consumables including drugs. CHSWTs shall disseminate and institutionalize SOPs for supply chain management, essential drug lists, treatment guidelines, management guidelines and pharmaceutical waste to all primary facilities.

The OICs shall ensure that gCHVs receive drugs and supplies from their primary catchment facilities and effectively implement supply chain management procedures for their level. Within facilities, treatment guidelines and protocols, essential medicine lists and a national formulary shall be the hallmark for strengthening clinical pharmaceutical services. To this effect, CHSWTs and health facilities shall adhere strictly to national SOPs for pharmaceutical services. The EPHS emphasizes periodic in-service training, monitoring and supportive supervision on the rational use of drugs for OICs, screeners and dispensers.

3.3 Diagnostic Services

Diagnostic services underpin the practice of modern medicine by providing information to clinicians to effectively assess the status of a patient's health, make accurate diagnoses, formulate treatment plans, and monitor the effects of treatment. They are also a major source of health information for epidemiological and surveillance purposes and are often the first sites of confirmation for disease outbreaks. To provide such functions, laboratory data must be recorded and reported through the appropriate channels in an accurate and timely manner.

The laboratory system in Liberia has recently been strengthened by the development of the National Laboratory Policy and Plan. The implementation of this plan will systematically strengthen laboratory capacity and ensure the design and introduction of appropriate laboratory services at all levels of health care. The EPHS identifies minimal laboratory services including tests, staffing, supplies, and equipment at each facility level. Laboratories will implement a quality assurance program that covers all aspects of laboratory services.

3.4 Infection Prevention and Control

Those providing and receiving care in a health facility are at risk of acquiring and transmitting infections through exposure to blood, body fluids or contaminated materials. In order to improve the effectiveness of facility infection control measures, CHSWTs shall ensure that all facilities have appropriate operational and technical capacities including equipment, supplies and infrastructure necessary for infection prevention and control. All District Health Teams shall designate at least one Environmental Health Technician who will be responsible for ensuring efficient implementation of the national SOPs for infection prevention and waste management at all district facilities. At the community level, EHTs shall organize and direct outreach activities and work with gCHVs to carry out WASH (Water quality, Sanitation, Hygiene) activities.

As Environmental and Occupational Safety programming is being developed, the EPHS promotes occupational health by ensuring a healthy and safe workplace. This includes (a) maintaining records of work-related injuries, sicknesses, accidents and fatalities to help assess and mitigate future risks, (b) training and supervising workers in the maintenance and use of equipment and supplies to prevent accidents and reduce risks and vulnerabilities, and (c) providing HIV/AIDS prevention, post-exposure prophylaxis, treatment and care.

3.5 Health Management Information Systems (HMIS)

HMIS consists of various sub-systems designed for data collection, processing, reporting, and use for necessary improvements in health services. It also improves effectiveness and efficiency through better planning and management at all levels of the health care delivery system. At the primary level, county HMIS activi-

ties shall emphasize data quality, timely reporting, and regular feedback and system responsiveness once feedback is received.

Facility-level staff will be trained and supervised to review their own monthly HMIS reports so that they can more effectively monitor their own performance. At the county level, the system will generate detailed, disaggregated data to guide decision-making on programmatic and operational issues affecting the whole or parts of the county. Information will be consolidated and aggregated at the central level to inform policy-making, planning, resource allocation and operational oversight. CHSWTs shall ensure that health care forms and registries are available at all facilities and that reports from primary facilities and communities will be collected on a monthly basis while information on reportable diseases is collected on a weekly basis. An exception is maternal death, which shall be reported within 24 hours and a death audit conducted by an audit committee within 48 hours, regardless of whether the death occurs in the community or at a health facility.

The Medical Records Management System is paramount to improving patient care and treatment. The EPHS emphasizes a well managed medical record system in accordance with the *Guidelines for Improving Health System Management: A Medical Record Toolkit.*

4.0 Essential Primary Care Services: Summary

4.1 Community Health Volunteer (CHV) Services

Program Area	Services	Required Staff
Maternal & Newborn Health	Ensure 4 ANC visits	TTMs
	Birth preparedness plan and referral	
	Nutrition education and assessment	
	Family planning promotion and services (non-prescriptive)	
	PMTCT follow-up for mothers	
	Immunization follow-up for mother and child	
Child Health	Routine Immunization follow-up for child	gCHVs
	Growth monitoring	
	Surveillance and reporting for immunizable diseases	
	Community case management and referral	
	Infant and young child feeding	
Family Planning	Promotion and condom distribution	CHVs
	Additional commodity distribution	Assigned community distributors
Adolescent Sexual & Reproductive Health	IEC/BCC on ASRH, HIV and GBV	Peer educators Youth friendly centers
	Counseling and prevention of teenage pregnancy	
	Condom promotion	
Communicable Disease Prevention & Control	IEC/BCC	CHVs Assigned community DOTS
	DOTS and defaulters tracing	
Neglected Tropical Diseases	IEC/BCC	CHVs
	Mass drug distribution	
	Referral	
Non- Communicable Diseases	IEC/BCC	gCHVs
	Referral	
Eye Health	IEC/BCC	gCHVs
Emergency Health	Referral	gCHVs
Mental Health	IEC/BCC	gCHVs District Social Worker
	Promote stigma reduction	
	Facilitate client reintegration into community	
	Referral	

Table continues →

Program Area	Services	Required Staff
Infection Prevention & Control	Supervision of gCHVs	District EHT
	Hygiene promotion	
	Ensure water quality	
	Ensure food safety	
	Pest control	
	Waste management	

4.2 Primary Health care Level One and Two Clinics

Program Area	Services	Required Staff	
		PHC 1	PHC 2
Maternal and newborn health services	ANC care	Multi-Purpose Health Professional (MPHP)	1–2 Mult-Purpose Health Professionals (MPHP) and a Midwife
	Labor and delivery care		
	BEmONC		
	Postpartum care		
	Newborn care		
	Maternal and newborn nutrition		
	Family planning counseling and services		
	PMTCT		
	Malaria in pregnancy		
Child health services	Expanded Program on Immunization	1 MPHP	1–2 MPHP 1 Midwife
	Integrated Management of Childhood Illnesses		
	Growth monitoring		
	Nutrition assessments		
	Micronutrient supplementation		
	Infant and young child feeding		
	Promote ENAA		
	Identify, treat or refer cases of acute malnutrition		
Family planning	Counseling and services	1 MPHP	1–2 MPHP 1 Midwife
	Refer to county hospital for surgical options		
Adolescent sexual and reproductive health	Youth-friendly services including: Family planning, peer education, condom promotion, STI management, counseling for unintended pregnancies and other conditions	1 MPHP	1–2 MPHP 1 Midwife
Response to sexual and gender based violence	Counseling	1 MPHP	1–2 MPHP 1 Midwife
	Clinical management of cases including PEP		
	Referral for psychological, community and legal services		
Detection and management of reproductive cancers	Health education	1 MPHP	1–2 MPHP 1 Midwife
	Refer to next level for management		

Table continues →

Program Area	Services	Required Staff	
		PHC 1	PHC 2
Communicable disease prevention and control	Health education	1 MPHP	1–2 MPHP 1 Midwife
	Management and control of STIs/HIV/AIDS		
	Management and control of TB		
	Management and control of malaria		
	Management and control of other diseases with epidemic potential		
	Refer complicated cases to next level		
Neglected tropical diseases	Community sensitization	1 MPHP	1–2 MPHP
	Early detection and timely treatment of cases		
	Refer to next level		
Prevention and treatment of non-communicable diseases	Health education	1 MPHP	1–2 MPHP
	Routine screening for risk factor identification		
	Refer to hospital for management		
	Follow-up cases		
Eye health services	Health education	1 MPHP	1–2 MPHP 1 Midwife
	Screening		
	Initial treatment of injury and infection		
	Prevention of neonatal conjunctivitis		
Mental health services	Counseling services	1 MPHP	1–2 MPHP
	IEC/BCC		
	Management of depression and post traumatic stress		
	Crises intervention and referral		
Emergency health services	First aide and Emergency resuscitation	1 MPHP	1–2 MPHP
	Management and control of epileptic seizures		
	Refer to next level		
Infection prevention and control	Health education	District EHT	District EHT
	Waste management		
	Vector control		

5.0 Essential Primary Care Services: Detailed Listings

5.1 EPHS Required Health Interventions and Services

Maternal & Newborn Care	
Antenatal Care	
Interventions and Services Provided	**PHC Clinics**
Routine Care	
Diagnose pregnancy	Yes
Screen for high risk, including short height	Yes
Monitor growth of fetus (height of fundus)	Yes
Monitor mother's weight gain	Yes
Give tetanus toxoid	Yes
Give prophylactic iron, folic acid and multivitamins	Yes
Give intermittent preventative treatment for falciparum malaria	Yes
Give mebendazole for deworming	Yes
Screen for and manage pre-eclampsia or hypertension	Yes/Refer for delivery
Screen for and manage severe pre-eclampsia or hypertension	Refer immediately
Screen for and treat anemia	Yes
Manage severe anemia (<7gm/dl) with symptoms or in last trimester	Refer
Screen (RPR) and manage syphilis and partner	Yes
VCT for HIV	Yes
Feel for malpresentation or twins	Refer
IEC/BCC on the importance of antenatal care	Yes
IEC/BCC on diet and rest during pregnancy and lactation	Yes
IEC/BCC on birth preparedness and danger signs; safe home delivery; family planning	Yes
Promote and provide ITNs for pregnant women	Yes
Conduct nutrition assessments: hemoglobin and BMI	Yes
Provide supplementary feeding program for maternal nutrition	Yes
Manage complications of pregnancy	
Manage threatened or complete abortion	Yes
Manage incomplete abortion (Manual Vacuum Aspiration)	Yes
Manage complicated abortion	Refer

Table continues →

Interventions and Services Provided	PHC Clinics
Manage ectopic pregnancy	Refer
Manage urinary tract infection	Yes
Manage fever/malaria (rapid diagnostic test)	Yes
Manage vaginal discharge (syndromic method) and partner	Yes
No fetal movements	Refer
Ruptured membranes, not in labor	Refer
Labor and Delivery Care	
Assess and monitor progress in labor/recognize delay	Partograph/Refer
Conduct a clean delivery of the baby	Yes
Active management of third stage of labor (oxytocin and controlled cord traction)	Yes
Episiotomy and repair of tears	Yes
Breech delivery	Yes
Transverse lie	Refer
Antepartum hemorrhage	Resuscitate/Refer
Treat shock	Initiate/Refer
Bimanual compression of uterus	Yes
Manual removal of retained placenta	Yes
Manage convulsions or unconsciousness: eclampsia	Initiate/Refer
Manage convulsions or unconsciousness with fever: malaria/sepsis	Initiate/Refer
PMTCT	Yes/Refer
Postpartum Care	
Immediate postpartum care	
Monitor general conditions, vital signs, uterine contraction, bleeding	Yes
At end of the first week and during puerperium	
Give postpartum vitamin A	Yes
Give prophylactic iron and folic acid	Yes
Detect and manage puerperal sepsis	Initiate/Refer
Detect and manage anemia	Yes/Refer with symptoms
Detect and manage urinary tract infection	Yes
Manage nipple or breast pain	Yes
Manage constipation, hemorrhoids and other symptomatic problems	Yes
Counsel on birth spacing	Yes

Table continues →

Interventions and Services Provided	PHC Clinics
Newborn Care	
Immediate care	
Keep dry and warm, clear airway if necessary, cord care, put to breast	Yes
Resuscitate baby if not breathing well	Yes
Tetracycline eye ointment to prevent opthalmia neonatorum	Yes
Initiate breast feeding within the first hour of life	Yes
During the first month	
Manage low birth weight baby (1500gms–2500gms)	Yes/Feeding difficulty: Refer
Manage very low birth weight baby (<1500gms or <32 weeks gestation)	Refer immediately
Manage neonatal jaundice	Yes
Counsel and support mother on breastfeeding	Yes
Give newborn immunizations	Yes
Treat skin pustules or cord infection	Yes
Treat neonatal sepsis/severe skin or cord infection	Iniate/Refer
Neonatal tetanus	Refer
Reproductive and Adolescent Health	
IEC/BCC on birth spacing and family planning	Yes
Counsel on informed choice	Yes
Distribute male and female condoms; explain their use	Yes
Distribute oral contraceptive pills; explain their use	Yes
Administer DMPA; explain its use	Yes
Insert and remove IUD; explain its use	Yes
Permanent surgical methods	Refer
Syndromic management of STIs for women	Yes
Syndromic management of STIs for men	Yes
VCT for HIV	Refer
Infertility counseling	Yes
Child Health	
Expanded Program on Immunization (EPI)	
IEC/BCC	Yes
Storage of vaccines	Yes
Routine and outreach immunization	Yes
Supplemental immunization (and EPI plus)	Yes
Surveillance and case reporting of immunizable diseases	Yes
Reporting immunization activities	Yes

Table continues →

Interventions and Services Provided	PHC Clinics
Integrated Management of Childhood Illnesses (IMCI)	
IEC/BCC on home care for the sick child; danger signs, completing treatment	Yes
Management of severely ill child	Initiate/Refer
Emergency triage assessment and treatment	Yes/Refer
IEC/BCC on cough or cold home care and danger signs	Yes
Pneumonia	Yes
Severe pneumonia	Initaite/Refer
Ear infection	Yes
Diarrhea with no dehydration	Yes
Diarrhea with some dehydration	Yes
Diarrhea with severe dehydration	Initiate/Refer
Persistent diarrhea or dysentery	Yes
Measles	Yes
Complicated measles	Initiate/Refer
Case management of child with fever/malaria	Yes
Management of malnutrition	Yes/Refer
Infant and Young Child Nutrition	
For pregnant women, intermittent preventative treatment of malaria	Yes
Promotion of breast feeding and exclusive breast feeding for first 6 months	Yes
Promotion of appropriate complementary feeding	Yes
Growth monitoring and nutrition counseling	Yes
Vitamin supplementation to children 6–59 months	Yes
Iron supplementation to children 6–59 months	Yes
Deworming of children	Yes
Identification of malnutrition	Yes
Investigation and management of malnutrition	Yes/Refer
Communicable Disease Control	
HIV/AIDS and Sexually Transmitted Infections	
Awareness and sensitization activities promoting “ABC”	Yes
Promotion and distribution of condoms	Yes
Awareness and sensitization about VCT	Yes
VCT services	Yes
Treatment of opportunistic infections	Yes
Awareness and sensitization of pregnant mothers to VCT for PMTCT	Yes
VCT for PMTCT services	Yes
PMTCT services and follow up	Yes/Refer

Table continues →

Interventions and Services Provided	PHC Clinics
Post-exposure prophylaxis (PEP)	No
Syndromic management of STIs without microscope	Yes
Syndromic management of STIs with microscope	Yes
RPR test for syphilis	Yes
Tuberculosis	
IEC/BCC on spread of TB; recognition of symptoms; case management	Yes
BCG immunization of all newborns	Yes
Identification of suspect cases	Yes
Collection of sputums and microscopy for AFBs	Diagnostic Clinic
Diagnosis of TB in sputum-negative cases	Diagnostic Clinic
Diagnosis of TB in children	Diagnostic Clinic
Registration and assignment to treatment regimen	Diagnostic Clinic
Supervision of intensive phase of DOTS	Diagnostic Clinic
Supervision of continuation phase of DOTS	Diagnostic Clinic
Sputum examination/treatment review at end of intensive and continuation phase	Diagnostic Clinic
Management of complications and suspected drug-resistant cases	Refer
Screening of household members	Yes
Leprosy	
IEC/BCC on spread of leprosy, symptoms and case management	Yes
Diagnosis of leprosy	Yes
Treatment for leprosy with multi-drug therapy	Yes
Referral of complicated cases	Yes
Malaria	
Case management of malaria	
IEC/BCC on case recognition and management	Yes
Treat history of fever + RDT positive or laboratory positive	Yes
Treat history of fever + RDT or laboratory negative with high index of suspicion	Yes
Laboratory confirmation in adults and children over five years	Yes
Give first line treatment (artesunate and amodiaquine)	Yes
Case management and treatment of pregnant women	Yes
Recognize treatment failure and give second line (quinine)	Yes
Manage severe complicated malaria in under five years	First dose/Refer
Manage complicated malaria in over five years	First dose/Refer
Prevention of malaria	
IEC/BCC on preventing malaria transmission	Yes
Intermittent preventive treatment (IPT) for pregnant women	Yes

Table continues →

Interventions and Services Provided	PHC Clinics
Promote and distribute ITNs for under 5 years	Yes
Promote and distribute ITNs for pregnant women	Yes
Control and Management of Other Diseases with Epidemic Potential	
Epidemic Control	
Monthly reporting of reportable diseases	Yes
Clinical management of infectious diseases	
Typhoid	Refer
Meningitis	Refer
Jaundice and yellow fever	Refer
Acute rheumatic fever	Refer
Hemorrhagic fever	Refer
Measles	Refer
Pertussis	Refer
Acute watery diarrhea and bloody diarrhea	Yes
Neonatal tetanus	Refer
Acute flaccid paralysis	Refer
Mental Health	
Awareness and Sensitization	Yes
Screening and assessment for suicide	Yes/Refer
Screening for major mental health conditions	Yes/Refer
Screening and assessment for trauma	Yes/Refer
Assessment and diagnosis of epilepsy	Yes/Refer
Assessment and diagnosis of major mental health conditions	Yes/Refer
Treatment and management of major mental health conditions	Yes/Refer
Treatment and management of epilepsy	Yes/Refer
Prescribe/manage medication and provide psychotherapy for anxiety disorders	Yes/Refer
Prescribe/manage medication and provide psychotherapy for mood disorders	Yes/Refer
Prescribe/manage medication and provide psychotherapy for psychotic disorders	Yes/Refer
Prescribe/manage medication and provide psychotherapy for psychosomatic symptoms	Yes/Refer
Screening and assessment for substance abuse	Yes/Refer
Counsel and refer for substance abuse	Yes/Refer
Prescrbe/manage medication for epilepsy	Yes/Refer
Prescribe/manage medication and provide psychotherapy for substance abuse	Yes/Refer
Provide psychotherapy, individual and group counseling for substance abuse	Yes/Refer
Medication management	Yes/Refer

Table continues →

Interventions and Services Provided	PHC Clinics
Case management for individuals with mental health conditions	Yes/Refer
Provide therapy for major mental health conditions and substance abuse	Yes/Refer
Care and counseling for domestic and interpersonal violence	Yes/Refer to SW
Provide rape exam	Yes/Refer to SW
Maintain register of persons on long-term medication for mental health	Yes/Refer
Supervise and supply long-term medications	Yes/Refer
Psychosocial and trauma counseling	Yes/Refer
Emergency Care	
Manage shock	Initiate/Refer
Blocked airway or respiratory failure	Initiate/Refer
Anaphylaxis	Initiate/Refer
Seizures/convulsions	Initiate/Refer
Bites and rabies	Initiate/Refer
Poisoning by mouth	Initiate/Refer
Snake bite	Initiate/Refer
Cardiac arrest	Initiate/Refer
Head injury	Initiate/Refer
Status asthmaticus	Initiate/Refer
Epistaxis	Yes
Foreign body in ear or nose	Refer
Eye injury	Initiate/Refer
Eye infection	Yes
Burns	Initiate/Refer
Sexual assault	Yes
Wound and soft tissue injuries	Yes
Pneumothorax and hemothorax	Refer
Abdominal trauma or acute abdomen	Initiate/Refer
Close fractures and dislocations of upper limb	Initiate/Refer
Closed fractures of lower limb	Initiate/Refer
Open fractures	Initiate/Refer
Spinal injuries or pelvic fractures	Initiate/Refer
Multiple injuries	Initiate/Refer
Diagnostic Services	
Hematology	
Hemoglobin	Yes

Table continues →

Interventions and Services Provided	PHC Clinics
Microscopy	
Malaria parasites	Yes
AFB smear	Yes
Wet mounts—stool microscopy	Yes
Clinical Chemistry	
Proteinuria and glucosuria	Yes
RDT for malaria	Yes
Rapid pregnancy test	Yes
Blood glucose	Yes
RPR test for syphilis	Yes
HIV rapid test	Yes
Specimen collection procedure for dried blood spot (DBS)	Yes
Eye Health	
Basic eye IEC/BCC on face washing and injuries prevention	Yes
Screening and identification of common visual impairment and infections	Yes
First aid management of eye injury	Yes
Referral of eye cases	Yes
Treatment of simple eye conditions	Yes
Ivermectin distribution	Yes

Prison Health Services

Preventative Care

A good entry examination conducted by a clinician at intake (or as soon thereafter as clinical visitation allows), combined with health education and good hygiene will improve the health of inmates and greatly reduce the need for referrals to health facilities and thereby the burden on correctional staff. Prison clinicians are expected to provide thorough medical examinatons at intake, provide weekly health talks and conduct inspections as well as regular active case finding to prevent unnecessary inmate and staff health problems.

Interventions and Services Provided	On-Site Clinic	Sick-Bay	Outreach
Entry Examinations	**Daily**	**Weekly**	**Weekly**
Opening of a confidential, unique ID patient file	Yes	Yes	Yes
Describe the medical system and request for care process at the prison	Yes	Yes	Yes
Administration of Mebendezole for deworming	Yes	Yes	Yes
Administration of Praziquantel for Shistosomiasis in epidemic counties	Yes	Yes	Yes
Inspection for skin disease including groinal area	Yes	Yes	Yes

Table continues →

Interventions and Services Provided	On-Site Clinic	Sick-Bay	Outreach
Mental health evaluation	Yes	Yes	Yes
Mobility aid evaluation	Yes	Yes	Yes
Chronic disease and medication assessment and plan	Yes	Yes	Yes
Pregnancy test for female inmates (voluntary)	Yes	Yes	Yes
Malaria rapid test	Yes	Yes	Yes
Assessment of communicable disease risk including STIs	Yes	Yes	Yes
Health education on common diseases in prison and psychological impact of imprisonment	Yes	Yes	Yes
Health Education			
Regular health promotion IEC/BCC including:	Weekly	Weekly	Weekly
Family planning and management	Yes	Yes	Yes
Management of common illnesses and diseases	Yes	Yes	Yes
Communicable disease prevention and awareness	Yes	Yes	Yes
Substance abuse prevention, risks, resources	Yes	Yes	Yes
Routine Care			
Health inspection of premises (cells, kitchen, etc.)	Monthly	Monthly	Monthly
Active case finding at all cells	Daily	Weekly	Weekly
Distribution of ITNs	Yes	Yes	Yes
Fumigation and white-washing every six months	Yes	Yes	Yes
Ensure availability of necessary hygiene items	Yes	Yes	Yes
Communicable Disease Control			
Malaria			
Rapid diagnostic testing (RDT) for all symptomatic complaints	Yes	Yes	Yes
Tuberculosis			
Active case finding	Yes	Yes	Yes
Isolate suspected cases (refer to hospital for isolation if necessary)	Yes	Yes	Yes
Refer suspected cases to hospital	Yes	Yes	Yes
Skin infections/disease			
Active case finding	Yes	Yes	Yes
Pest control and disinfection of case area	Yes	Yes	Yes
HIV/Sexually transmitted infections			
Voluntary Confidential Testing	Yes	Yes	Refer

Table continues →

Interventions and Services Provided	On-Site Clinic	Sick-Bay	Outreach
Curative Care			
On-site routine case finding and care as well as timely referrals for emergencies will improve the health of inmates as well as prison staff. Prison clinicians are expected to provide routine medical consultations, first-line control and management of common illnesses/diseases and timely referrals for cases (routine and emergency) that cannot be addressed on site. Clinicians are responsible for the distribution and supervision of needed drugs, including distribution by correctional officers.			
Routine Care			
Routine medical consultation including active case finding, physical examination, treatment	8 am – 4 pm M–F	1 day/ weekly	1 day/ weekly
All consultations and referrals recorded in confidential, unique ID patient file	Yes	Yes	Yes
Control and manage acute watery and/or bloody diarrhea	Yes	Refer	Refer
Recognition of severe hernia and referral according to needs	Yes	Yes	Yes
Recognition of severe hemorrhoids and referral according to needs	Yes	Yes	Yes
Recognition of mental illness and referral to specialist/hospital	Yes	Yes	Yes
Recognition of respiratory illness and referral	Yes	Yes	Yes
Communicable Disease Control			
Malaria			
Give first-line treatment	Yes	Yes	Yes
Identify and treat first-line failure	Yes	Refer	Refer
Tuberculosis			
Treatment according to NLTCP Protocols	Yes	Yes	Yes
Skin Infections/Disease			
Mass treatment in case of communicated skin disease (e.g., scabies)	Yes	Yes	Yes
HIV/Sexually transmitted infections			
Supervision of ARV therapy/CO administration of ARV therapy	Yes	Yes	Yes
Syndromic management of STIs	Yes	Yes	Yes
Emergency Care			
24-hour emergency first aid available (at least one first-aid-trained CO per shift)	Yes	Yes	Yes
Published emergency referral plan with transportation and facility contacts	Yes	Yes	Yes
Manage shock	Yes/Refer	First Aid/ Refer	First Aid/ Refer
Manage seizures/convulsions including epilepsy	Yes/Refer	First Aid/ Refer	First Aid/ Refer

Table continues →

Interventions and Services Provided	On-Site Clinic	Sick-Bay	Outreach
Manage closed and open fractures	First Aid/ Refer	First Aid/ Refer	First Aid/ Refer
Manage anaphylaxis	Yes	Refer	Refer
Manage wound and soft tissue injuries	Yes	First Aid/ Refer	First Aid/ Refer
Specialist Care			
Recognition of mental illness and referral to specialist/hospital	Yes	Yes	Yes
Visiting specialist consultations/referrals for eye care every 4 months	Yes	Yes	Yes
Visiting specialist consultations/referrals for dental care every 4 months	Yes	Yes	Yes

Health Care for Women			
Prison clinicians are expected to distribute sanitary materials, be able to diagnose pregnancy, screen and refer for high-risk pregnancies; provide or refer for antenatal care as needed (MOHSW mandates a minimum of four antenatal care health facility visits between the end of the first trimester and full term); safely refer a prisoner for labor and delivery in a health facility and ensure appropriate postpartum and newborn care.			
Routine distribution of sanitary materials	Yes	Yes	Yes
Test for pregnancy (voluntary)	Yes	Yes	Yes
RPR syphillis testing and treatment	Yes	Yes	Yes
Identify high-risk pregnancies	Yes	Yes	Yes
Regular ANC case management of pregnant women	Yes	Yes	Yes
Refer any complications of pregnancy	Yes	Yes	Yes
Referral Plan for Labor/Delivery	Yes	Yes	Yes
Screen for and manage pre-eclampsia or hypertension	Yes	Yes	Refer
Regular malaria screening and prevention	Yes	Yes	Yes
Treatment of malaria in pregnant women	Refer	Refer	Refer

5.2 Required Drugs

Drug	PHC Clinics
Anesthetics	
Diazepam 5mg/ml	Yes
Lidocaine injection (plain) 2%	Yes
Lidocaine injection (plain) 1%	Yes
Analgesics, antipyretics, non-steroidal anti-inflammatories	
Non-opioids and non-steroidal anti-inflammatory analgesics	
Acetylsalicylic acid 300mg	Yes
Diclofenac sodium, 25mg/ml; 3ml	Yes
Diclofenac tablets 50mg	Yes
Ibuprofen 200mg	Yes
Indomethacin 25mg	Yes
Paracetemol 100mg	Yes
Paracetemol 125mg/5ml	Yes
Paracetemol 500mg	Yes
Antiallergics and medicines used in anaphylaxis	
Chlorpheniramine 4mg	Yes
Chlorpheniramine 10mg/ml	Yes
Dexamethasone 0.5Mg	Yes
Epinephrine 1mg/ml	Yes
Hydrocortisone 100mg	Yes
Prednisolone 5mg	Yes
Promethazine 25mg	Yes
Antidotes and other substances used in poisoning	
Atropine 1mg/ml	Yes
Charcoal activated 250mg	Yes
Calcium folinate (folinic acid) 15mg	Yes
Calcium folinate (folinic acid) 3mg/ml	Yes
Calcium gluconate	Yes
Anticonvulsants and antiepilectics	
Diazepam 5mg/ml	Yes
Diazepam 5mg	Yes
Magnesium sulphate 50%	Yes
Phenytoin 100mg	Yes
Anti-infectives	
Intestinal infestations	
Mebendazole 500mg	Yes
Mebendazole 100mg	Yes
Anti-filariasis	
Ivermectin 6mg	Yes
Anti-schistosomiasis medicines	
Praziquantel 600mg	Yes
Antibacterials	
Amoxycillin 125mg/ml	Yes
Amoxycillin 250mg	Yes
Benzyl pencillin, 1mu (600mg)	Yes
Chloramphenicol 250mg	Yes
Ciprofloxacin 500mg	Yes
Cloxacillin 250mg	Yes
Cloxacillin 500mg	Yes
Co-trimoxazole 100 +20mg	Yes
Co-trimoxazole 200 +40mg/5ml	Yes
Co-trimoxazole 400+80mg	Yes
Doxycycline 100mg	Yes
Erythromycin 250mg	Yes
Metronidazole 125mg/5ml	Yes
Metronidazole 200mg	Yes
Nalidixic acid 500mg	Yes
Nitrofurantoin 100mg	Yes
Phenoxymethyl penicillin 250mg	Yes
Procaine benzyl penicillin fortified 4mu	Yes
Antileprosy medicines	
Clofazimine 100mg	Yes
Dapsone 100mg	Yes
Rifampicin 150mg	Yes

Table continues →

Drug	PHC Clinics
Antituberculosis medicines	
Ethambutol 400mg	Yes
Ethambutol 100mg	Yes
Isoniazid 300mg	Yes
Isoniazid 100mg	Yes
Pyrazinamide 500mg	Yes
Pyridoxine 50mg	Yes
Rifampicin/isoniazid/pyrizinamide/ethambutol 150mg/75mg/400mg/275mg	Yes
Rifampicin/isoniazid 150mg/75mg	Yes
Rifampicin/isoniazid/ethambutol 150mg/75mg/275mg	Yes
Rifampicin/isoniazid/pyrizinamide 60mg/30mg/150mg	Yes
Rifampicin/isoniazid 60mg/30mg	Yes
Rifampicin/isoniazid 60mg/60mg	Yes
Antifungals	
Clotrimazole 400mg pessary	Yes
Griseofulvin 500mg	Yes
Griseofulvin 125mg	Yes
Miconazole 100mg	Yes
Nystain 100,000 IU	Yes
Nystain 100,000 IU/ml	Yes
Nystain 500,000 IU oral use	Yes
Anti-retrovirals, subject to current National AIDS Control Program Protocols	
Lamivudine + zidovudine 150+300	Yes
Lamivudine 150mg	Yes
Nevirapine 200mg	Yes
Nevirapine syrup, 10mg/ml	Yes
Zidovudine 300mg	Yes
Zidovudine oral solution, 10mg/ml, 100ml	Yes
Antiamoebic and antigiardiasis medicines	
Metronidazone 125mg/5ml	Yes
Metronidazole 250mg	Yes

Drug	PHC Clinics
Antimalarials	
Artemether 20mg + lumefantrine 120mg	Yes
Artemether 20mg/ml	Yes
Artemether 80mg/ml	Yes
Artesunate 100mg + amodiaquine 270mg	Yes
Artesunate 50mg + amodiaquine 135mg	Yes
Doxycycline 100mg	Yes
Quinine dihydrochloride 300mg/ml	Yes
Quinine sulphate 300mg	Yes
Sulphadoxine/pyrimethamine 500 +25mg	Yes
Antineoplastic and Immunosuppressives	
Hydrocortisone 100mg	No
Prednisolone 5mg	No
Medicines Affecting the Blood	
Antianaemia Medicines	
Ferrous salt 200mg + folic acid 0.25mg	Yes
Ferrous sulphate 200mg coated (65mg iron)	Yes
Folic acid 5mg	Yes
Cardiovascular Medicines	
Antihypertensive medicines	
Hydrochlorothiazide 25mg	Yes
Dermatological Medicines	
Benozoic acid + salicyclic acid	Yes
Benzyl Benzoate 25%	Yes
Calamine 15%	Yes
Clotrimazole 1% 20g cream	Yes
Disinfectants and Antispetics	
Calcium or Sodium hypochlorite 5% solution	Yes
Chlorhexidine + Cetrimide 1.5% +15%	Yes
Chlorhexidine gluconate 5%	Yes
Surgical Spirit	Yes

Table continues →

Drug	PHC Clinics
Diuretics	
Hydrochlorothiazide 50mg	Yes
Gastrointestinal Medicines	
Aluminium hydrox.+ Magnesium trisil, 400mg	Yes
Bisacodyl 5mg (paediatric)	Yes
Bisacodyl 5mg	Yes
Magnesium trisilicate 500mg	Yes
Metoclopramide 10mg	Yes
Metoclopramide 5mg/ml	Yes
Oral rehydration salt	Yes
Zinc sulphate 20mg	Yes
Contraceptives	
Ethinylestradiol 30 μg + norethisterone 1mg	Yes
Ethinylestradiol 30 μg+ levonorgesterel 150 μg	Yes
Ethinylestradiol 30 μg+ levonorgesterel 300 μg	Yes
Ethinylestradiol 50 μg+ levonorgesterel 250 μg	Yes
Female condom	Yes
Intrauterine device	Yes
Levonorgesterol	Yes
Male condom	Yes
Medroxyprogesterone acetate 150mg depot	Yes
Norethisterone	Yes
Norgestrel 75 μg	Yes
Immunologicals	
Anti-snake venom (polyvalent)	Yes
BCG vaccine dried	Yes
DPT vaccine	Yes
DPT-HepB+Hib	Yes
Measles vaccine	Yes
Polio vaccine oral soln.	Yes
Rabies vaccine	Yes
Tetanus anti-toxin, human 1,500u	Yes
Tetanus toxoid	Yes
Yellow Fever vaccine	Yes
Opthalmological Preparations	
Chloramphenicol 0.5% eye drops	Yes
Gentamicin eye drops 0.3%	Yes
Tetracycline 1% eye ointment	Yes
Solutions Correcting Water, Electrolyte and Acid-Based Disturbances	
Dextrose 50%	Yes
Dextrose 5%	Yes
Dextrose 5% in normal saline	Yes
Normal saline 0.9% NaCl	Yes
Ringer's lactate 500ml	Yes
Half-strength Ringer's lactate 500ml	Yes
Water for injection	Yes
Vitamins and Minerals	
Ascorbic acid 250mg	Yes
Calcium gluconate 10mg/ml, 10ml	Yes
Calcium lactate 300mg	Yes
Multivitamin	Yes
Pyridoxine (B6) 25mg	Yes
Retinol (Vitamin A) 200,000 IU	Yes
Retinol (Vitamin A) 500,000 IU	Yes
Vitamin B-compound	Yes
Vitamin B-compound 2ml	Yes
Oxytocics and Antioxytocics	
Ergometrine maleate, 0.5mg	Yes
Ergometrine 0.5mg/ml	Yes
Oxytocin 10 IU/ml	Yes
Medicines Acting on the Respiratory Tract	
Hydrocortisone 100mg/ml	Yes
Prednisolone 5mg	Yes
Salbutamol 0.5mg/ml	Yes
Salbutamol 4mg	Yes
Salbutamol aerosol inhaler	Yes

5.3 Required Equipment

Non-Medical
Administration
Office equipment
Office furniture
Electricity
Emergency lights
Water Supply
Hand-washing sinks/taps/bowls on stands in all areas
Storage tank
Water purification chemicals or filter
Water source for drinking water
Waste Disposal
Buckets for contaminated waste in all treatment areas
Incinerator or burial pit
Protective boots and utility gloves
Rubbish bins in all rooms
Sanitation facilities for patients
Sharps containers in all treatment areas
Safety
Fire extinguisher
Medical Storage
Cool boxes and vaccine carriers
Refrigerator
Shelves and stock cards
Housekeeping
Brooms, brushes and mops
Buckets
Soap and disinfectant
Women's Reproductive Health
BP machine and stethoscope
Contraceptive supplies
Examination gloves
Examination table

Medical
Family planning cards
Fetal stethoscope
Height measure
Home-based mother's cards
IEC/BCC flip charts, posters, models
Immunization cards
IUD insertion set
MVA syringe and canulas
Register
Speculum and vaginal examination kit
Syringes and needles
Tape measure
Thermometer
Weighing scale
Child Health
Baby scales
Hanging scales
MUAC tape
Register
Road to Health cards
Tape line
Thermometer
Expanded Program on Immunization
Cold box
Refrigerator
Safety box
Syringes, needles and swabs
Temperature monitoring charts
Labor and Delivery
Baby scales
BP machine and stethoscope
Clean delivery kits and cord ties
Delivery bed and bed linen
Fetal stethoscope

Table continues →

Medical
Instrument trolley
IV giving sets, canulas, infusion bottles
IV stand
Latex gloves and protective clothing
Mucus extractor
Oral airways, various sizes
Oxygen tank and concentrator
Partograph charts
Self-nflating bag and mask, adult and neonatal size
Suction machine
Suturing set
Thermometer
Towel and blankets for newborn
Tray with routine and emergency drugs, syringes, and needles
Urinary catheter and collection bag
Work surface near bed for newborn resuscitation
Short Stay
Basic examination equipment
Beds, washable mattresses and linen
Dressing trolley/medicine trolley
IV stands
Patient trolley on wheels
Urinals and bedpans
Treatment
Ambu resuscitation set with adult and child masks
Container for sharps disposal
Dressings
Examination table
Hand washing facilities
Instrument sterilizer
Instrument tray
Instrument/dressing trolley

Medical
IV stand
Light source
Oral airways, various sizes
PPE kits
Receptacle for soiled pads, dressings, etc
Safety box
Splints and slings
Sterile gloves
Stool, adjustable height
Storage cabinet for drugs
Suturing set
Syringes and needles
Wall clock with second hand
Wound dressing set
Diagnostics
Hemoglobinometer
Laboratory scale and weights
Measuring jars, beakers, test tubes
Micropipet and tips
Microscope and lens oil
Microscope slides and cover slips
Pipettes and stand
Reagents, stains and test kits as appropriate
Safety equipment (eyewash, fire extinguisher, etc.)
Slide rack
Specimen collection cups, tubes and capillary tubes
Spirit lamp
Stain jars
Timer
Eye Health care
Ophthalmoscope
Visual accuity charts: Snellen and E-Charts