sddddddisisisisidisssssDdihealth

HP

sddddddisisisisidisssssDdihealth

HP



**ESSENTIAL HEALTH CARE PACKAGE FOR LESOTHO**

**2021**

sddddddisisisisidisssssDdihealth

HP

# Foreword

The health sector in Lesotho developed the Essential Health Package (EHP) in the year 2005 as part of the broader agenda of the health sector reforms program implemented in the period between 2000 and 2010. The reforms in this case were intended to address the inequalities in access to a basic package of services to the whole population to attain fairness in distribution of essential health services in line with the available resources and in the most cost-effective way. The sector made great strides in the implementation of the 2005 EHP through stakeholders’ collaboration and investments in the EHP priorities.

The health sector under the stewardship of the Ministry of Health has developed a new EHP informed by the progress made in the implementation of the 2005 EHP. It has also been informed by the burden of disease in the country as well as available resources. This EHP spelt out a set of most cost-effective, affordable, acceptable interventions addressing conditions, diseases and associated risk factors that are responsible for the greater part of the burden of disease of the country. The package shall be implemented at different levels of the health system.

This document has been developed in participation of relevant stakeholders including but not limited to; Ministry of Health Lesotho, the Districts, Partners both funding and implementing partners, line Ministries, and technical experts form the health sector.

This EHP shall be the reference document that shall guide the provision of health services to the population of the Kingdom of Lesotho. It is a guide to all the stakeholders working in the health sector and provides the standards that will be followed by all health providers. The EHP shall form the basis for investments in the overall health sector, both public and private. It shall guide in the rationalization of resources and restructuring of implementation arrangements to maximize efficiency and effectiveness in the health sector. Further it shall inform the development of protocols and standards of practice in health service delivery.

It is our sincere hope that all stakeholders and implementers will embrace the EHP and implement it in unity and in collaboration with each other. All this shall contribute significantly towards better Health for the people of the Kingdom of Lesotho as we journey together towards attainment of Universal Health Coverage.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Hon. Semano Sekatle

Minister of Health

# Acknowledgements

This Essential Health package document has been developed through a constative and collaborative efforts by the different stakeholders working in the health sector in the Kingdom of Lesotho. The Ministry of Health would like to acknowledge all those individuals and institutions which contributed in one way or another to the successful development of the EHP.

A lot of gratitude goes to the Minister of Health Hon. Semano Sekatle and the Principal Secretary Mr. Khothatso Ts’ooana for providing the overall leadership in the course of the work. Additionally, special thanks go to the Director General of Health Services Dr. ‘Nyane Letsie for providing the overall Technical leadership in the course of the work and for humbly having participated in various meetings during the development process.

Special thanks go to the EHP Technical Working Groups comprising of persons from different departments, programs in the Ministry of health, the line ministries, the partners and the districts who contributed enormously in the development of the interventions for each of the priority health conditions. Special gratitude goes to the Department of Health Planning and Statistics who worked tirelessly to coordinate the exercise and ensured that logistics and all the necessary requirements were available promptly to the teams.

The Ministry would like to extend sincere appreciation to all the stakeholders who participated in the consultative and validation meetings and provided the necessary inputs towards enriching the EHP. Additionally, we wish to thank the development partners who provided support towards this particularly important exercise. In a special way we thank the WHO/Lesotho and UNFPA for providing both Technical and financial support towards the exercise.

Lastly, we would like to take this opportunity to thank all those who in one way or the other participated and contributed in the development of the EHP. I urge all of us to join hands as we implement the document for betterment of the healthy status of the people of Lesotho.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Dr. Thabelo Ramatlapeng

Director Primary Health Care

# Table of contents

[Foreword i](#_Toc82503861)

[Acknowledgements ii](#_Toc82503862)

[Table of contents iii](#_Toc82503863)

[List of tables iv](#_Toc82503864)

[List of Acronyms vi](#_Toc82503865)

[Chapter 1: Introduction 1](#_Toc82503866)

[The Policy Background 1](#_Toc82503867)

[Rationale for Essential Health package. 2](#_Toc82503868)

[Outline of the EHP 2](#_Toc82503869)

[Chapter 2: Methodology 3](#_Toc82503870)

[Phase 1; Review of the implementation of the 2005 EHP 3](#_Toc82503871)

[Phase 2; Development of New Essential Health Package 3](#_Toc82503872)

[Costing of the Essential package 4](#_Toc82503873)

[Stakeholder’s engagement 4](#_Toc82503874)

[Chapter 3: The situation analysis 5](#_Toc82503875)

[Health status of the population 5](#_Toc82503876)

[The Burden of disease 5](#_Toc82503877)

[Organization of the health system 6](#_Toc82503878)

[Chapter 4: Description of the Essential Health Care Package 8](#_Toc82503879)

[Maternal and New-born Health services 8](#_Toc82503880)

[Pre-conception services 8](#_Toc82503881)

[Pregnancy conditions 9](#_Toc82503882)

[Obstetric haemorrhage; maternal sepsis, and hyperemesis gravidarum 9](#_Toc82503883)

[Hypertensive disorders in pregnancy 11](#_Toc82503884)

[Pregnancy diabetes mellitus 14](#_Toc82503885)

[Miscarriage/abortion 15](#_Toc82503886)

[Obstetric fistula 16](#_Toc82503887)

[Infertility 19](#_Toc82503888)

[Neonatal/new-born conditions 21](#_Toc82503889)

[Prematurity, birth asphyxia, neonatal sepsis & neonatal jaundice 21](#_Toc82503890)

[Congenital abnormalities 23](#_Toc82503891)

[Intra-uterine death (fresh and macerated still births) 25](#_Toc82503892)

[Other Neonatal conditions 26](#_Toc82503893)

[Child health services 28](#_Toc82503894)

[Diarrhoea 28](#_Toc82503895)

[Measles 30](#_Toc82503896)

[Tetanus 31](#_Toc82503897)

[Malnutrition 32](#_Toc82503898)

[Iron deficiency anaemia 34](#_Toc82503899)

[Intellectual disability 35](#_Toc82503900)

[Poliomyelitis 36](#_Toc82503901)

[INFECTIOUS DISEASE SERVICES 38](#_Toc82503902)

[Sexually Transmitted Infections Including HIV and AIDS 38](#_Toc82503903)

[Tuberculosis 40](#_Toc82503904)

[Anthrax 42](#_Toc82503905)

[Non communicable diseases services 43](#_Toc82503906)

[Hypertension 43](#_Toc82503907)

[Stroke 45](#_Toc82503908)

[Heart Failure 47](#_Toc82503909)

[Diabetes Mellitus 48](#_Toc82503910)

[Asthma 51](#_Toc82503911)

[Chronic Obstructive Pulmonary Diseases 52](#_Toc82503912)

[Chronic Kidney Disease 53](#_Toc82503913)

[Osteoporosis 54](#_Toc82503914)

[Parkinson’s disease 56](#_Toc82503915)

[Arthritis 57](#_Toc82503916)

[Muscular Skeletal Disease 58](#_Toc82503917)

[Epilepsy 59](#_Toc82503918)

[Mental Health 60](#_Toc82503919)

[Depression 60](#_Toc82503920)

[Alzheimer 62](#_Toc82503921)

[Cancer 63](#_Toc82503922)

[Injuries 65](#_Toc82503923)

[Gender Based Violence 67](#_Toc82503924)

[Burns and corrosion 68](#_Toc82503925)

[Poisoning 69](#_Toc82503926)

[Neglected Tropical Diseases 70](#_Toc82503927)

[Soil Transmitted Helminth 70](#_Toc82503928)

[Oral Health services 71](#_Toc82503929)

[Dental caries 71](#_Toc82503930)

[Periodontal disease 73](#_Toc82503931)

[Acute Necrotizing Ulcerative Gingivitis (ANUG) 74](#_Toc82503932)

[Noma/cancrum oris 75](#_Toc82503933)

[Dermatology conditions -skin conditions 76](#_Toc82503934)

[Eye Care and Prevention of Blindness 77](#_Toc82503935)

[Ear, Nose and Throat 78](#_Toc82503936)

[Otitis media 78](#_Toc82503937)

[Foodborne And Waterborne Diseases 80](#_Toc82503938)

[Chapter 5: Implementation for the EHP 81](#_Toc82503939)

[Chapter 6: Financial Implications 83](#_Toc82503940)

[Chapter 7: Monitoring & Evaluation of EHP Implementation 84](#_Toc82503941)

[Bibliography 87](#_Toc82503942)

[Annexes 1: Summary of interventions by major disease groupings 87](#_Toc82503943)

[Annex 2; Ten top causes of mortality by age cohort (WHO burden of disease estimates 2015) 96](#_Toc82503944)

[Annex 3: Top ten causes of morbidity (source WHO burden of disease estimates 2015) 97](#_Toc82503945)

[Annex 4: EHCP task team 98](#_Toc82503946)

# List of tables

[Table 1: ehp technical working groups 3](#_Toc82503947)

[Table 2:Country performance on selected impact indicators 5](#_Toc82503948)

[Table 3:Top ten causes of outpatient morbidity 2018: 5](#_Toc82503949)

[Table 4:Total number of health facilities by type and by ownership 7](#_Toc82503950)

[Table 5:Table 5 Pre-conceptual services 8](#_Toc82503951)

[Table 6:Table 6 management and prevention of obstetric Haemorrhage; maternal sepsis, and hyperemesis gravidarum 9](#_Toc82503952)

[Table 7:prevention and management of hypertensive disorders (PIH, pre-eclampsia and eclampsia) 11](#_Toc82503953)

[Table 8: prevention and management of pregnancy induced diabetes mellitus 14](#_Toc82503954)

[Table 9:prevention and management of miscarriage (< 28 wks. pregnancy) 15](#_Toc82503955)

[Table 10: prevention and management of Obstetric Fistula 16](#_Toc82503956)

[Table 11:prevention and management of infertility 19](#_Toc82503957)

[Table 12:prevention and management of Menstrual Disorders 20](#_Toc82503958)

[Table 13:prevention and management of neonatal conditions (prematurity; birth asphyxia. neonatal sepsis and neonatal jaundice 21](#_Toc82503959)

[Table 14 :Prevention and management of congenital anomalies 24](#_Toc82503960)

[Table 15:prevention and management of intra-uterine death - IUD 25](#_Toc82503961)

[Table 16:management and prevention of other neonatal Conditions 26](#_Toc82503962)

[Table 17*:prevention and management of Diarrhoea* 28](#_Toc82503963)

[Table 18:prevention and management of measles 30](#_Toc82503964)

[Table 19:prevention and management of Tetanus 31](#_Toc82503965)

[Table 20:Prevention and Management of Malnutrition 32](#_Toc82503966)

[Table 21 :prevention and management of Iron Deficiency Anaemia 34](#_Toc82503967)

[Table 22:prevention and management of Intellectual disability 35](#_Toc82503968)

[Table 23:prevention and management of Acute Flaccid Paralysis (Poliomyelitis) 36](#_Toc82503969)

[Table 24:prevention and management of STIs including HIV/AIDS 38](#_Toc82503970)

[Table 25:prevention and management of tuberculosis 40](#_Toc82503971)

[Table 26:prevention and management of anthrax 42](#_Toc82503972)

[Table 27: prevention and management of hypertension 43](#_Toc82503973)

[Table 28:prevention and management of stroke 45](#_Toc82503974)

[Table 29:Prevention and management of heart failure 47](#_Toc82503975)

[Table 30:prevention and management of diabetes mellitus 48](#_Toc82503976)

[Table 31:management and prevention of asthma 51](#_Toc82503977)

[Table 32:prevention and management of chronic obstructive pulmonary diseases 52](#_Toc82503978)

[Table 33:prevention and management of chronic kidney disease 54](#_Toc82503979)

[Table 34:prevention and management of Osteoporosis 55](#_Toc82503980)

[Table 35: prevention and management of Parkinson’s disease 56](#_Toc82503981)

[Table 36:prevention and management of arthritis 57](#_Toc82503982)

[Table 37:prevention and management of Muscular Skeletal diseases 58](#_Toc82503983)

[Table 38:prevention and management of epilepsy 59](#_Toc82503984)

[Table 39:prevention and management of Alzheimer 62](#_Toc82503985)

[Table 40:prevention and management of Cancer 63](#_Toc82503986)

[Table 41:prevention and management of injuries 65](#_Toc82503987)

[Table 42:prevention and management of gender-based violence 67](#_Toc82503988)

[Table 43:prevention and management of burns and corrosion 68](#_Toc82503989)

[Table 44:prevention and management of Poisoning 69](#_Toc82503990)

[Table 45:prevention and management of Soil Transmitted Helminth 70](#_Toc82503991)

[Table 46:prevention and management of dental caries 71](#_Toc82503992)

[Table 47: prevention and management of periodontal disease 73](#_Toc82503993)

[Table 48:prevention and management of acute necrotising ulcerative gingivitis (ANUG) 74](#_Toc82503994)

[Table 49:prevention and management of NOMA/CANCRUM ORIS 75](#_Toc82503995)

[Table 50:Prevention and management of dermatology conditions /skin conditions 76](#_Toc82503996)

[Table 51: Eye care; Prevention and management of blindness 77](#_Toc82503997)

[Table 52: Prevention and management of Otitis media 78](#_Toc82503998)

[Table 53 : Prevention and management of foodborne and waterborne diseases 80](#_Toc82503999)

[Table 54 : Indicators for monitoring progress of ehp implementation 84](#_Toc82504000)

# List of Acronyms

A &E Accidents and Emergencies

ADL Activities of Daily Living

AEFI Adverse Events Following Immunization

AFP Acute Flaccid Paralysis

AHINI Influenza A H1N1

AIDS Acquired Immunodeficiency Syndrome

ALST Advanced life support

AML Acute Myeloid Leukaemia

ANC Antenatal Care

APH Antepartum Haemorrhage

ART Antiretroviral Therapy

ARV Antiretroviral

ATLS Advanced Trauma Life Support

AZT Zidovudine

BMI Body Mass Index

BP Blood Pressure

CBR Community based rehabilitation

CHAL Christian Health Association of Lesotho

CHD Congenital Heart Disorders

COPD Chronic Obstructive Pulmonary Disease

CPAP Continuous Positive Airway Pressure

CSF Cerebrospinal Fluid

CT scan Computed Tomography Scan

CTG Cardiotocograph

CTX Cotrimoxazole

D&C Dilation and Curettage

DALYS Disability-Adjusted Life Years

DAP Draw a Person Test

DBS Dried Blood specimen

DBS Dry Blood Spot

DM Diabetes Mellitus

DNA Deoxyribonucleic Acid

DOT Directly Observed Treatment

DR TB Drug Resistance Tuberculosis

ECG Electrocardiogram

EEG Electro Encephalogram

EHCP Essential Health Care Package

EHP Essential Health service Package

EMOC Emergency Obstetric care

ENT Ear Nose and Throat

EPI Expanded Program on Immunization

FBC Full Blood Count

FNA Fine Needle Aspiration

GIT Gastrointestinal Tract

HAART Highly Active Anti-Retroviral Therapy

HB Haemoglobin

HBA1c Glycosylated haemoglobin

HCW Health Care Worker

HDU High Dependency Unit

HIV Human Immunodeficiency Virus

HMIS Health Management Information System

HONK Hyperosmolar Hyperglycaemic Syndrome

HPV Human Papilloma Virus

HTC HIV Testing and Counselling

HTN Hypertension

I&D Incision and Drainage

ICU Intensive Care Unit

IEC Information, Education and Communication

IMCI Integrated Management of Childhood Illnesses

IMNCI Integrated Management of neonatal and childhood Illnesses

INH Isoniazid

IPC Infection Prevention and Control

IUCD Intra-utérine Contraceptive Device

IV Intra-venous

IVP Intravenous Pyelogram

LBW Low birth weight babies

LDL Low Density Lipoprotein

LEEP Loop Electrosurgical Excision Procedure

LPPA Lesotho Planned Parenthood Association

LRCS Lesotho Red Cross Society

M&E Monetary and Evaluation

MAM Moderate Acute Malnutrition programme

MDGs Millennium Development Goals

MDR-TB Multi Drug Resistant - Tuberculosis

MMR Measles Mumps Rubella Vaccine (MMR)

MOH Ministry of Health

MPDS Myo-facial Pain Dysfunction syndrome

MRI Magnetic Resonance Imaging

MUAC Mid Upper Arm Circumference

MVA Manual Vacuum Aspiration

NCDs Non-Communicable Diseases

NDS National development Strategy

NGOs Non-Governmental Organizations

NHP National Health Policy

NSAID Non-Steroidal Anti-inflammatory drugs

NSDP National Strategic Development Plan

OHI Oral Hygiene Instructions

OPD Outpatient Department

OPV Oral Polio Vaccine

ORS Oral rehydration solution

OTP Outpatient therapeutic programme

PCR Polymerase Chain Reaction

PHC Primary Health Care

PIH Pregnancy Induced Hypertension

PIH Partners in Health

PIH Pregnancy Induced Hypertension

PMTCT Prevention of Mother to Child Treatment

POP Plaster of Paris

PROM Premature Rupture of Membranes

RBS Random Blood Sugar

RDT Rapid Diagnostic Test

RH Reproductive Health

RPR Rapid Plasma Reagin

RUTF Ready-To-Use-Therapeutic-Food

SDG Sustainable Development Goals

SGA Small for Gestational Age

SHI Social Health Insurance

SRH Sexual Reproductive Health

STH Soil Transmitted Helminthes

STIs Sexually Transmitted Infections

TB Tuberculosis

TIG Tetanus Immune Globulin

TTCV Tetanus-Toxoid-Containing Vaccines

U&Es Urea and Electrolytes

UHC Universal Health Coverage

UFPA United Nations Population Fund and United Nations Development Programme

UNICEF United Nations International Children's Emergency Fund

VHWs Village Health Workers

WASH Water Sanitation and Hygiene

WBC White Blood Count

WHO World Health organization

XDR-TB Extreme Drug Resistant – Tuberculosis

# Chapter 1: Introduction

The Kingdom of Lesotho is a mountainous, landlocked country surrounded by the Republic of South Africa with a population of just over 2 million people. According to the world bank, the Kingdom of Lesotho is classified as a lower middle-income country with a per capita income of US$1879 and ranks 161 out of 187 countries on the UN Human Development ranking. [[1]](#footnote-1)The Country has a high unemployment rate and widening inequalities (with a Gini Index of 0.52) which have excluded most of the population from participation in economic development.

The country has a young population with close to 61% of the population being between the ages of 15-46 years and 34% being under the age of 15 years. Majority of the population lives in the rural areas, though the income distribution is skewed towards the urban areas.

## The Policy Background

The Kingdom of Lesotho, 1993 Constitution, enshrines the right to life and the protection of health, equality and justice for all. It further provides the framework for policies, laws to ensure the right to life and the protection of health for all are achieved. The National Vision 2020 and the National Strategic Development Plan II (NSDP II 2018/19-2022/23) provides the overall direction for Growth and development for the country. The vision 2020 aspiration in health is to reduce the socio-economic impact of HIV and AIDs pandemic through multi-sectoral approach while the development plan recognizes the effect of morbidity and mortality on the human capital which affects the Constitution and vison of the health sector in protecting life and ensuring a well-developed human resource base.

The National Health Policy (NHP) 2017 and the National Health Strategic Plan (NHSP 2018/19 -2022/23 provides the overall policy and strategic direction for the health sector. These documents are premised on the Sustainable Development Goals (SDGs), the Universal Health Coverage (UHC) agenda and access to quality health care. The NHP 2017 lays focus on health promotion, disease prevention, early diagnosis and treatment of diseases, and prioritizes the effective delivery of the Essential Health Package (EHP) as well as efficient use of available resources. The NHP 2017 and the NHSP 2018-2023 were preceded by the NHP 2011 and the 2012/13-2016/17 NHSP documents that were informed by the Millennium Development Goals (MDGs), Regional, National, and Global goals, and declarations including poverty reduction, revitalizing of primary health care (PHC) and the call to strengthen country health systems.

Essential health packages are a means to concentrate scarce resources on interventions which provide the best value for money. EHPs are often expected to achieve multiple goals, including improved efficiency, equity, political empowerment, accountability and more effective care. Implementing an EHP is not just a technical exercise, successful implementation involves dialogue on purpose and design; decisions on financing and delivery arrangements; and adaptation over time. Without adequate national ownership, an EHP is unlikely to be implemented - no matter how popular it is with donors (Waddington C. 2013).

The terms ‘essential health service package’ ‘essential health benefits package’, ‘essential health services’, ‘basic package of services’ or ‘minimal benefits package’ are often used interchangeably. The World Health Organization (WHO) defines EHPs as “health service interventions that are considered important and that society decides what should be provided to everyone.” It is generally acknowledged that a key prerequisite to achieving UHC is a clear definition of the EHP (Glassman et al 2016).

Currently, there is no global standard set of essential health services or a defined benefits package (Teerawattananon et al 2016), packages are usually set with a good understanding of the disease burden as well as whom they will benefit and informed by the current resource constraints. Glassman et al (2016) states that EHPs should as far as is feasible, be selected according to consistent and transparent criteria that are aligned with a health system’s objectives. It is expected that the package spells out the conditions/diseases and requisite interventions for the different age cohorts- pregnant/childbearing women; children; adolescents; adults and older persons, delineating interventions by the public health function (i.e. Health promoting; disease preventing; curative/rehabilitative; and palliative) and by the level of the health system (i.e. Community; primary care; secondary (regional); and tertiary (national) that the service should be provided. Aside from coming up with a comprehensive package that meets the needs and expectation of citizens, others such as (Glassman et al 2016; Teerawattananon et al 2016) propose that countries can proceed by delivering a limited benefits package and subsequently identify priorities for progressive expansion as more resources become available.

## Rationale for Essential Health package.

The Kingdom of Lesotho has over the years implemented cost-effective interventions to improve the health of the population. Institutionalization of EHPs in 2005 was one of the key strategies in service delivery. At the time, the development of the package was part of the broader agenda of the health sector reforms program that was implemented in the period between 2000 and 2010. The reforms were intended to address the inequalities in access to basic package of services to the whole population in order to attain fairness in distribution of essential health services in line with the available resources and in the most cost-effective way. The 2005 package therefore defined a set of the most cost-effective, affordable and acceptable interventions for addressing conditions, diseases and associated risk factors that were responsible for the greater part of the disease burden in the country.

The 2005 EHP has been implemented in Lesotho for over fifteen years and the health sector under the stewardship of the Ministry of Health purposed to review and update this package in-order to build further on the gains that the sector made in the period. Further, the review was aimed to facilitate and enhance the ability to attain Universal Health Coverage (UHC) and contribute to the achievement of the Sustainable Development Goals especially, Goal 3: *Ensure healthy lives and promote well-being for all at all ages.*

It is in this background that the health sector through the stewardship of the Ministry of Health and with support from stakeholders, reviewed the 2005 EHP, established the progress in the implementation, lessons learnt and the gaps thereof. This review informed the development of this new updated Lesotho Essential health package. This new package reflects the changing demography and epidemiology as well as current technological advances, economic growth and public expectations of health services.

The definition and development of this package has taken into consideration the following:

1. the burden of disease/ill-health of the population of Lesotho
2. Cost-effectiveness of the interventions addressing the conditions, diseases and associated factors responsible for the greater part of the disease burden
3. Affordability relative to the available and projected resources
4. Service delivery models that maximize synergies and linkages.

This EHCP shall be the reference document that shall guide the provision of health services to the population of the Kingdom of Lesotho. It is a guide to all the stakeholders working in the health sector and provides the standards that will be followed by all health providers. The EHP shall form the basis for investments in the overall health sector, both public and private. It shall guide in the rationalization of resources and restructuring of implementation arrangements to maximize efficiency and effectiveness in the health sector. Further it shall inform the development of protocols and standards of practice in health service delivery.

## Outline of the EHP

This EHP follows the outline described below, starting with an introduction to contextual issues, methods used, situation analysis; description of the current EHP; the institutional arrangements; cost and financial implications and monitoring and evaluation.

Chapter 1; Introduction and background

Chapter 2: The Methodology of developing the EHP

Chapter 3; The Situation analysis

Chapter 4; The Description of the EHP

Chapter 5. The Implementation arrangement

Chapter 6. Cost and Financial Implications

Chapter 7. Monitoring and Evaluation

# Chapter 2: Methodology

The development of Lesotho EHP was through a phased approach which included two major phases as: (i) comprehensive review of the 2005 EHP in-order to inform the development of the new EHP (ii) and the second phase which entailed the development of the EHP and its costing.

## Phase 1; Review of the implementation of the 2005 EHP

The review was done through document review, data collection through interviews and eventual development of a comprehensive report with lessons to inform the development of the new package.

The Document Review included the review of existing documents from the global level; regional as well as country documents which informed the work. The documents included but were not limited to National Health policies; National Health strategies; Essential Health packages from different countries; Norms and standards for the various Health system inputs such as Infrastructure; Monitoring and Evaluation plans; and burden of disease estimates among others. The review of the documents generated overall sector vision, goals and direction and the linkages with the EHP. The documents also provide critical information on the exiting burden of disease in the country as well as progress made in the implementation of the EHP as well as the challenges thereof.

Data was collected through both quantitative and qualitative methods of data collection. This was done from the health facilities; health managers at both National and District level as well as other key informants comprising of key health stakeholders. Data collection tools developed included: structured questionnaires, Key informant interviews and Service delivery data and Burden of disease estimates.

Service delivery data and Burden of disease estimates were also used to inform progress made in the implementation of the 2005 EHP as well as the status of the disease burden. As such, data was extracted from routine and non-routine data sources in order to demonstrate the progress made in this objective. Critical data based on key selected indicators as per the EHP priority areas was mined from existing health sector reports such as the Demographic Health Survey (DHS) reports; Health sector review reports and also from the routine Health Information System (HIS). Additionally, data was drawn from the Global Burden of Disease (GBD) estimates. The resulting data/information apart from informing progress made in the implementation of the EHP was critical in informing the development of the new EHP. A comprehensive report was produced with key lessons that would inform the development of the new EHP.

## Phase 2; Development of New Essential Health Package

This phase involved development of the new EHP, informed by the assessment report, the burden of disease and the existing resources. Technical teams were formed to develop the package and grouped as per the life cycle cohorts and as guided by the Ministry of Health. These included:

Table 1: ehp technical working groups

|  |  |
| --- | --- |
| **Groups /Team** | **Cohort** |
| Group 1 | Cohort 1. Pregnancy and New-born |
| Group 2 | Cohort 2; 29-59 months |
| Group 3 | Cohort 3: 5-19 years |
| Group 4 | Cohort 4; Adult hood-20-59 |
| Group 5 | Cohort 5; Elderly 60+ |

-

Each of the teams held working meetings under the guidance of the consultant where they; -

* Identified conditions to be included in the EHP for each of the life cycle cohorts.
* Consolidated conditions for each life cycle cohort
* Identified interventions for each of the conditions across public health functions and by level of care;
* Harmonized interventions for conditions addressed by different groups.

This phase of work was followed by an appraisal and consultative process to appraise the output of the work across the technical teams. The consultant then consolidated the draft document in readiness for a comprehensive consultative process with the internal stakeholders (Ministry of Health) and the external stakeholders. The consultant updated the document based on stakeholder’s inputs and on agreed on format/structure of the document. Presentation to the policy makers was done, which informed the final the EHP.

## Costing of the Essential package

The required inputs for the effective implementation of the EHP were estimated based on the findings in the assessment reports and the existing norms and standards in the health sector. The costing for EHP was modelled on the estimates as contained in the National Health Strategic Plan (NHSP)

## Stakeholder’s engagement

Stakeholders working in the health sector were involved throughout the process. Stakeholders formed part of the TWGs that was formed by the Ministry of Health to coordinate the work of the 2005 EHP. Some of the stakeholders were also key informants. Further the different teams that developed the EHP for each of the life cycle cohorts were composed of stakeholders drawn from all stakeholders working in health including Ministry of Health, partners, districts, line ministries among others.

Additionally, consultative meetings were carried out with stakeholders to evoke inputs and validation of the various products including the assessment tools; the assessment reports; the new EHP as well as the estimated costs for EHP.

# Chapter 3: The situation analysis

## Health status of the population

The country has registered progress in improving the health status as indicated by critical health indices. According to Lesotho Demographic health survey (LDHS 2014) the Life expectancy improved from 42 years in 2009 to 47 years in 2014. Further the 2016 Population and housing Census showed further improvement in life expectancy of 56 years. This is still however relatively low as compared to 71.4% global target. (WHO Global Health Observatory data 2015). Additionally, the country has also made progressive improvements in reduction of child mortality, maternal mortality and malnutrition as shown in the table below.

Table 2:Country performance on selected impact indicators

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **INDICATOR** | **COUNTRY STATUS** | | | **2023 NATIONAL TARGET** |
| **2009** | **2014** | **2017** |
| Under five mortality | 117 deaths per 1,000 live births | 85 deaths per 1,000 live births | 80 deaths per 1,000 live births | 65 deaths per 1,000 live births |
| Infant mortality | 91 deaths per 1,000 live births | 59 deaths per 1,000 live births | 53 deaths per 1,000 live births | 24 deaths per 1,000 live births |
| Neonatal mortality | 47 deaths per 1,000 live births | 34 deaths per 1,000 live births | N/A | 31 deaths per 1,000 live births |
| Malnutrition rate:  **-**Stunting  **-**Wasting | 39%  4% | 33%  3% | N/A | N/A |
| Maternal mortality | 1,155 deaths per 100,000 live births | 1,024 deaths per 100,000 live births | 618 deaths per 100,000 live births | 567 deaths per 100,000 live births |

*Source: LHDS, 2009 and 2014 & 2016 Population Housing Census*

## The Burden of disease

The routine District health information system (DHIS 2) as well as the Global burden of disease estimates by WHO were used to ascertain the burden of disease in Lesotho. The table below represents the top ten causes of outpatient morbidity in 2010 extracted from the DHIS 2. Annexes 1and 2 shows the top ten causes of mortality and the top ten causes of morbidity by age cohort respectively according to the WHO global burden of diseases estimates of 2015.

Table 3:Top ten causes of outpatient morbidity 2018:

|  |  |
| --- | --- |
| **Sno.** | **Condition** |
|  | Cough and colds |
|  | Other skin subcutaneous tissue disorder |
|  | Other disorders of the musculoskeletal and connective tissue system |
|  | Hypertension |
|  | Vaginal discharge |
|  | Diarrhoea without blood |
|  | Tonsillitis |
|  | Conjunctivitis |
|  | Gastroenteritis |
|  | Urethritis and urethral discharge (Male) |

*Source; Annual Joint Review report of 2018.*

The burden of disease from these sources global burden of disease and the routine HMIS data was used to inform the conditions for inclusion into the package. The main risk factors of disease and deaths were also considered as well as conditions and risk factors of public health importance.

## Organization of the health system

The health system is organized along three levels of primary, secondary, and tertiary health services. The primary healthcare system is built around a nationwide web of health centres and community health posts.

The Primary health system comprises of community service delivery system including community health posts and outreaches and the health centres. The staffing at the community level will be the village health workers according to the village health program policy of 2020. The health posts are community initiatives where village Health workers operate under the supervision of nurses from the health centres. The village health workers shall provide basic curative, preventive, and promotive health care to the communities. This includes but not limited to motivating client’s adherence to treatment, care for pregnant women and the new borns as well as education to the communities. Other staff at that level include a village health worker supervisor selected from among the village health worker due to among other characteristics’, the demonstration of high standards of work, upholding ethics and values, team leadership, report writing skills and trustworthiness. There shall also be a village health worker coordinator in a designated catchment of a local council based at a facility level.

The health centres are the first point of care within the formal health system, and they offer curative and preventive services, including immunizations, family planning, deliveries, HIV/AIDs, and TB treatment. The staffing at this service delivery level includes, nurse clinicians, with comprehensive skills in preventive and curative care and in the dispensing of medication.

The Secondary level of care comprises of different categories of hospitals at the district level, which serves as a referral level for the primary services. Others under this category includes the regional hospitals.

The tertiary level comprises of the national referral hospital The Queen Mamohato Memorial Hospital central referral hospital. Others at this level include two specialized hospitals as Mohlomi Mental and Bots’abelo Infectious Diseases Hospitals which caters for multi-drug resistant tuberculosis (MDR-TB). Other specialized facilities available at the tertiary level include the Baylor’s Paediatric Centre of Excellence for children with HIV and Aids, as well as Senkatana for HIV and AIDS.

There are close to 290 health facilities in the country owned either by the Government, Christian Health Association of Lesotho (CHAL), Red Cross or privately owned. Forty-two percent (42%) of the health centres and 57% of the hospitals are owned by Government of Lesotho. Twenty-three percent (23%) of the health centres and (38%) of the hospitals are owned by Christian Health Association of Lesotho (CHAL). In addition, there is an extensive network of private surgeries, private clinics and pharmacies providing healthcare services including dispensing of medicines.

Christian Health Association of Lesotho is the second largest provider of health services and the largest private-not-for-profit public health provider. CHAL plays a crucial role in providing healthcare services to at least 40 percent of the population, most of whom live in remote areas where coverage by government-owned facilities is relatively poor. In addition to CHAL, there are a number of NGOs and private-for-profit health care providers (Lesotho Planned Parenthood Association-LPPA, Red Cross, Partners in Health-PIH) who are involved in health care service delivery both in urban and rural areas. The Ministry of Health, through a Public Private Partnership arrangement, has a memorandum of understanding with CHAL and Lesotho Red Cross Society (LRCS) for provision of a defined Essential Health service Package (EHP) to the population through their network of health centres and hospitals.

The Ministry of Health works together with Development Partners (Donors) (Irish Aid, Global Fund, the United State Government, CDC/PEPFAR, Millennium Challenge Account (MCA), European Union, Gates Foundation, PIH, CHAI, GAVI, UNDP, UNAIDS, UNFPA, UNICEF, World Health Organization, World Bank and World Food Program) in the design, financing, and delivery of healthcare services.

Table 4:Total number of health facilities by type and by ownership

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Proprietor** | **Number of facilities by type** | | | | |
| **General Hospitals** | **Primary Hospitals** | **Health Centres** | **Filter Clinics** | **Total** |
| GOL | 12 | 0 | 110 | 4 | 126 |
| CHAL | 8 | 0 | 61 | 0 | 69 |
| LRCS | 0 | 0 | 4 | 0 | 4 |
| Private | 1 | 4 | 86 | 0 | 91 |
| Total | 21 | 4 | 261 | 4 | 290 |

*Source NHSP 2018/19*

The country has also established waiting mothers’ homes especially in areas with poor terrain in-order to encourage facility-based deliveries.

# Chapter 4: Description of the Essential Health Care Package

## Maternal and New-born Health services

Maternal health refers to the health of women during pregnancy, childbirth, and the postpartum period, whereas perinatal health refers to health from 22 completed weeks of gestation until 7 completed days after birth. Newborn health is the babies’ first month of life. A healthy start during the perinatal period influences infancy, childhood, and adulthood. Maternal, perinatal, and newborn health matters to every person, society, and country, and should be viewed from both a human rights and wellbeing perspective as highly important.[[2]](#footnote-2)

### Pre-conception services

Preconception services/care is the provision of biomedical, behavioural, and social health interventions to women and couples before conception occurs. It means knowing how health conditions and risk factors could affect a woman on her unborn baby if she becomes pregnant, e.g. Some food products, Habits, Medicines among others

Table 5:Table 5 Pre-conceptual services

| **Interventions by public health function** | **Interventions offered by level of service delivery** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Community** | **Health centre** | **District Hospital** | **Regional Hospital** | **Tertiary Hospital** |
| **Health Promotion Interventions** |  |  |  |  |  |
| Raising awareness on the following: | Yes | Yes | Yes | Yes | Yes |
| * *Risk of unsafe sex practice and abortion* | Yes | Yes | Yes | Yes | Yes |
| * *Existing laws concerning abortion* | Yes | Yes | Yes | Yes | Yes |
| * *WASH* | Yes | Yes | Yes | Yes | Yes |
| * *Use of family planning* | Yes | Yes | Yes | Yes | Yes |
| * *Vaccination including Td and HPV vaccine* * *Health diet* | Yes | Yes | Yes | Yes | Yes |
| * *Voluntary testing for STIs e.g., HIV&AIDs, syphilis* | Yes | Yes | Yes | Yes | Yes |
| * *Healthy seeking behaviour before conception* | Yes | Yes | Yes | Yes | Yes |
| * *Consequences of substance abuse* | Yes | Yes | Yes | Yes | Yes |
| * *Folic acid supplementation before conception* | Yes | Yes | Yes | Yes | Yes |
| Strengthening the knowledge of health workers on pre-conceptual services through trainings, refresher courses | Yes (for CHWs) | Yes | Yes | Yes | Yes |
| **Disease prevention interventions** |  |  |  |  |  |
| Early health seeking behaviour of all mothers | Yes | Yes | Yes | Yes | Yes |
| Encourage gene mix | Yes | Yes | Yes | Yes | Yes |
| Promote healthy diet | Yes | Yes | Yes | Yes | Yes |
| Provide condoms (male and female) | Yes | Yes | Yes | Yes | Yes |
| Encourage use of WASH | Yes | Yes | Yes | Yes | Yes |
| Counselling on Sexual and reproductive health | Yes | Yes | Yes | Yes | Yes |
| Provide Family planning methods mix | No | Yes | Yes | Yes | Yes |
| Provision of EMTCT e.g., HIV, Syphilis and Hep B | No | Yes | Yes | Yes | Yes |
| Folic acid supplementation. | No | Yes | Yes | Yes | Yes |
| Screening for STIs, HIV, TB, Anaemia, nutritional status | No | Yes | Yes | Yes | Yes |
| Provision of food supplements | Yes | Yes | Yes | Yes | Yes |
| Data management. M&E; Operational research | No | No | No | Yes | Yes |
| **Curative interventions** |  |  |  |  |  |
| Management of HIV positive clients (e.g., ART, Telemedicine), syphilis treatment if indicated. | No | Yes | Yes | Yes | Yes |
| Treatment of mild acute and chronic medical/surgical conditions (Nurse clinician) | No | Yes | Yes | Yes | Yes |
| Laboratory e.g., Basic hematologic tests, Blood chemistry | No | No | Yes | Yes | Yes |
| Imaging like x-ray and ultrasound | No | No | Yes | Yes | Yes |
| Corrective surgical procedures (e.g., poorly sutured episiotomy | No | No | Yes | Yes | Yes |
| Blood transfusion | No | No | Yes | Yes | Yes |
| Advanced medical/ surgical care. | No | No | No | No | Yes |
| Referral for conditions that cannot be managed at the particular level | Yes | Yes | Yes | Yes | Manage |
| Follow up of patients | Yes | Yes | Yes | Yes | Yes |
| **Rehabilitation interventions** |  |  |  |  |  |
| Nutritional advice and support | Yes | Yes | Yes | Yes | Yes |
| Physiotherapy services/Physical therapy | Yes | Yes | Yes | Yes | Yes |
| **Palliative interventions** |  |  |  |  |  |
| Psychosocial support/counselling services | Yes | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |

## Pregnancy conditions

This section describes the interventions by public health function and by level of care for the pregnancy related conditions including obstetric haemorrhage, maternal sepsis, hyperemesis gravidarum, pregnancy induced hypertension, pregnancy diabetes, obstetric fistula, miscarriage and infertility.

### Obstetric haemorrhage; maternal sepsis, and hyperemesis gravidarum

Table 6:Table 6 management and prevention of obstetric Haemorrhage; maternal sepsis, and hyperemesis gravidarum

| **Interventions by public health function** | **Interventions offered by level of service delivery** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Community** | **Health centre** | **District Hospital** | **Regional Hospital** | **Tertiary Hospital** |
|  | | | | | |
| 1. **Interventions that cut across and address the pregnancy conditions** | | | | | |
| **Health Promotion Interventions** |  |  |  |  |  |
| Raising awareness on; |  |  |  |  |  |
| * Early ANC: during first trimester | Yes | Yes | Yes | Yes | Yes |
| * Screening for pregnancy | Yes | Yes | Yes | Yes | Yes |
| * Screening for HIV, TB, syphilis and **anaemia** during the prenatal, and antenatal period | Yes | Yes | Yes | Yes | Yes |
| * The importance for health facility delivery and the use of maternity waiting homes where available. | Yes | Yes | Yes | Yes | Yes |
| * Early Initiation of breast feeding and exclusive breast feeding | Yes | Yes | Yes | Yes | Yes |
| * Importance of maternal vaccination /Td vaccination | Yes | Yes | Yes | Yes | Yes |
| * Danger signs of Pregnancy | Yes | Yes | Yes | Yes | Yes |
| * Appropriate hand washing practices | Yes | Yes | Yes | Yes | Yes |
| * Discourage harmful traditional practice | Yes | Yes | Yes | Yes | Yes |
| * Early health seeking behaviour | Yes | Yes | Yes | Yes | Yes |
| * Family planning | Yes | Yes | Yes | Yes | Yes |
| * Importance of Healthy Lifestyle (Exercise, nutrition etc) | Yes | Yes | Yes | Yes | Yes |
| Advocacy for Improved access to water, sanitation, and hygiene | Yes | Yes | Yes | Yes | Yes |
| Distribution of IEC materials | Yes | Yes | Yes | Yes | Yes |
| Strengthening CHWs and health workers knowledge on Pregnancy conditions (through capacity building) | Yes | Yes | Yes | Yes | Yes |
| **Disease prevention interventions** | | | | | |
| Encourage early initiation of breastfeeding (BF) and exclusive BF | Yes | Yes | Yes | Yes | Yes |
| Nutritional supplementation to mothers | Yes | Yes | Yes | Yes | Yes |
| Surveillance on harmful traditional practice | Yes | Yes | Yes | Yes | Yes |
| Provision of ANC services as per guidelines | No (promote) | Yes | Yes | Yes | Yes |
| Educate on bleeding as danger sign | Yes | Yes | Yes | Yes | Yes |
| Advise on reporting any for genital bleeding in pregnancy | Yes | Yes | Yes | Yes | Yes |
| Guarantee timely referral of high-risk mothers | Yes | Yes | Yes | Yes | Yes |
| Provide Health facility delivery | No (promote) | Yes | Yes | Yes | Yes |
| Community based maternal and neonatal death surveillance (verbal autopsy) | Yes | Yes | Yes | Yes | Yes |
| Td vaccination | Yes (outreaches /H. posts | Yes | Yes | Yes | Yes |
| **Curative interventions (some of the measures are also routinely done as preventive interventions during pregnancy** | | | | | |
| Comprehensive history (current and past Pregnancy) during routine checks | Yes | Yes | Yes | Yes | Yes |
| Comprehensive routine Maternal Assessment | No | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |
| * General Examination, (e.g. Height and weight, BP, Pallor | No | Yes | Yes | Yes | Yes |
| * Abdominal Examination | No | Yes | Yes | Yes | Yes |
| * Pelvic Exam | No | Yes | Yes | Yes | Yes |
| Routine laboratory investigations (for routine checks and also for diagnosis purposes) | No | Yes | Yes | Yes | Yes |
| * Haemoglobin (HB) | No | Yes | Yes | Yes | Yes |
| * Blood grouping and cross match | No | Yes | Yes | Yes | Yes |
| * Urine tests | No | Yes | Yes | Yes | Yes |
| * Screening for STIs -HIV, Syphilis, Hepatitis | No | Yes | Yes | Yes | Yes |
| Imaging services |  |  |  |  |  |
| * Ultrasound | No | No | Yes | Yes | Yes |
| Foetal assessments (foetal heart rate | No | No | Yes | Yes | Yes |
| Use of family planning services. | Yes | Yes | Yes | Yes | Yes |
| Monitoring and evaluation for quality of care | Yes | Yes | Yes | Yes | Yes |
| Provision of preventive medicines such as (Iron/folate tablets, Anthelmintic drugs, and Calcium Gluconate, | No | Yes | Yes | Yes | Yes |
| Direct Observed Treatment for nutritional supplements, other prescribed medication | Yes | Yes | Yes | Yes | Yes |
| Provide First Aid before referral to the next level | Yes | Yes | Yes | Yes | Yes |
| Referral for further assessment and management | Yes (immediate) | Yes | Yes | Yes | Yes |
| Regular check-ups. | Yes | Yes | Yes | Yes | Yes |
| Clean and safe Facility Delivery | No | Yes | Yes | Yes | Yes |
| Supportive management (IV Line, catheterization etc) | No | Yes | Yes | Yes | Yes |
| Ensure Availability of Essential medicines e.g., Oxytocin | No | Yes | Yes | Yes | Yes |
| Treat local infections | No | Yes | Yes | Yes | Yes |
| Management of all maternal Obstetric complications | No | No | Yes | Yes | Yes |
| High Care | No | No | No | Yes | Yes |
| Intensive Care Unit | No | No | No | No | Yes |
| 1. **Specific Interventions for the particular maternal condition** |  |  |  |  |  |
| **Obstetric haemorrhage (placenta previa, placenta abruption and ectopic pregnancy)** |  |  |  |  |  |
| Advise on reporting any for genital bleeding in pregnancy | Yes | Yes | Yes | Yes | Yes |
| Clinical differentiation of the previa/abruption | No | Yes | Yes | Yes | Yes |
| Definitive management (Caesarean Section, Vacuum extraction etc) | No (Urgent refer | No/ Urgent referral | Yes | Yes | Yes |
| Monitor and manage any uncontrollable bleeding | No (immediate refer) | No (immediate refer) | Yes | Yes | Yes |
| Blood transfusion as necessary | No | No | Yes | Yes | Yes |
| Monitor and manage prematurity and DIC | No | No | Yes | Yes | Yes |
| Administration of maternal corticosteroids | No | No | No | Yes | Yes |
| **Maternal sepsis** |  |  |  |  |  |
| Antibiotics for mothers with PROM | No | Yes (selected) | Yes | Yes | Yes |
| Definitive management (Caesarean Section, Vacuum extraction | No (Urgent refer | No | Yes | Yes | Yes |
| **Hyperemesis Gravidarum** |  |  |  |  |  |
| Guidance to mothers to present early to facilities if they experience vomiting in pregnancy | Yes | Yes | Yes | Yes | Yes |
| First aid to rehydrate | Yes & refer | Yes | Yes | Yes | Yes |
| Diet management / introduce food and drink as can be tolerated | Yes | Yes | Yes | Yes | Yes |
| Give supplements | Yes | Yes | Yes | Yes | Yes |
| Supportive Fluid therapy -IV fluids | No | Yes | Yes | Yes | Yes |
| Fluid input/output charting | No | No | Yes | Yes | Yes |
| Medication -anti-emetics |  |  |  |  |  |
| Confirm the nature of pregnancy (e.g., multiple or molar) | No | No | Yes | Yes | Yes |
| Management of the molar pregnancy /termination | No | No | Yes | Yes | Yes |
| Parenteral feeding | No | No | No | No | Yes |
| Tests |  |  |  |  |  |
| Random blood sugar tests | No | Yes | Yes | Yes | Yes |
| Laboratory tests -blood tests; glucose levels, liver function tests kidney functions including Beta HCG levels | No | No | Yes | Yes | Yes |
| **Rehabilitation interventions** |  |  |  |  |  |
| Follow up (at household level  as directed by the Health Centre; and at facility level as directed from the referring facility through downward referral,) | Yes | Yes | Yes | Yes | Yes |
| Home based care on medication (as prescribed) | No | Yes | Yes | Yes | Yes |
| Follow-up for Molar Pregnancy at hospital as per guidelines | No | No | Yes | Yes | Yes |
| **Palliative interventions** |  |  |  |  |  |
| Psychosocial Support | Yes | Yes | Yes | Yes | Yes |
| Spiritual support | Yes | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |

### Hypertensive disorders in pregnancy

The Hypertensive disorders of pregnancy include: (i) Pregnancy induced hypertension (PIH) which occurs after 20 weeks of gestation, during labour or within 48hrs of delivery (ii) Chronic hypertension which is present before 20 weeks of gestation – If the Diastolic Blood pressure is more than 90mmHg on two consecutive readings taken 4 hours or more apart, a diagnosis of hypertension is made. NB: A diastolic BP is a more reliable indicator of significant hypertension than systolic BP (iii) Pre-eclampsia: The presence of Proteinuria changes the diagnosis from PIH to a more serious condition of Pre – Eclampsia (iv) Eclampsia is the onset of fits in a woman whose pregnancy is usually complicated by Preeclampsia. (v) Fulminating pre-eclampsia: Sometimes mild pre-eclampsia progresses to severe pre-eclampsia and Eclampsia; this is called FULMINATING PRE ECLAPMSIA and it is dangerous to both mothers and infants. The table below details the interventions by public health function and for the various levels of service delivery for PIH, Pre-eclampsia and eclampsia

Table 7:prevention and management of hypertensive disorders (PIH, pre-eclampsia and eclampsia)

| **Interventions by public health function** | **Interventions offered by level of service delivery** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Community** | **Health centre** | **District Hospital** | **Regional Hospital** | **Tertiary Hospital** |
| **Health Promotion Interventions** |  |  |  |  |  |
| Raising awareness on; |  |  |  |  |  |
| * Importance of Early ANC | Yes | Yes | Yes | Yes | Yes |
| * Screening for pregnancy | Yes | Yes | Yes | Yes | Yes |
| * Screening for HTN during the prenatal, and antenatal period | Yes | Yes | Yes | Yes | Yes |
| * Importance of health facility deliveries and the use of maternity waiting homes where available. | Yes | Yes | Yes | Yes | Yes |
| * Danger signs of HTN during Pregnancy. | Yes | Yes | Yes | Yes | Yes |
| * Discourage harmful traditional practices. | Yes | Yes | Yes | Yes | Yes |
| * Importance of Early health seeking behaviour | Yes | Yes | Yes | Yes | Yes |
| * Family planning | Yes | Yes | Yes | Yes | Yes |
| * Importance of Healthy lifestyles (Exercice, nutrition etc.) | Yes | Yes | Yes | Yes | Yes |
| * Importance of taking regular treatment for hypertension. | Yes | Yes | Yes | Yes | Yes |
| * Awareness on the effects of both pre-eclampsia and eclampsia on both the mother and the baby. | No | No | Yes | Yes | Yes |
| Development and Distribution of IEC materials that are appropriate to the local need | Yes | Yes | Yes | Yes | Yes |
| Strengthening the knowledge of CHWs and Health workers on hypertensive disorders in Pregnancy | Yes (For CHWs) | Yes | Yes | Yes | Yes |
| **Disease prevention interventions** |  |  |  |  |  |
| Provision of Early ANC services | No (promote) | Yes | Yes | Yes | Yes |
| Nutritional education to mothers (Balanced diet rich in proteins, energy, vitamins minerals e.g. Calcium, folic Acid, Iron, Vitamin A etc. ). | Yes | Yes | Yes | Yes | Yes |
| Educate pregnant mothers about dangers of using alcohol and smoking and other substance abuse. | Yes | Yes | Yes | Yes | Yes |
| Educate pregnant women on importance of Observing the foetal movements. | Yes | Yes | Yes | Yes | Yes |
| Screening for HTN, Pre-eclampsia and eclampsia during the prenatal, and antenatal period | Yes | Yes | Yes | Yes | Yes |
| Conduct outreaches | Yes | Yes | Yes | Yes | Yes |
| Regular to check –ups once diagnosed with HTN. | Yes | Yes | Yes | Yes | Yes |
| Surveillance on harmful traditional practice | Yes | Yes | Yes | Yes | Yes |
| Community based maternal and neonatal death surveillance (verbal autopsy) | Yes | Yes | Yes | Yes | Yes |
| Early Identification of risk factors (Primigravida, adolescents less than 18 and women over 35 years, Obese women, Women with essential or renal hypertension, Multiple pregnancy, Women with: | No | Yes | Yes | Yes | Yes |
| * Diabetes | No | Yes | Yes | Yes | Yes |
| * Hydatidiform mole | No | Yes | Yes | Yes | Yes |
| * Polyhydramnios | No | Yes | Yes | Yes | Yes |
| * Hydrops fetalis) and refer to the higher level. | No | Yes | Yes | Yes | Yes |
| Ensure timely referral of high-risk mothers (Known history of elevated Blood pressure and abnormal laboratory investigations). | No | Yes | Yes | Yes | Yes |
| **Curative interventions** |  |  |  |  |  |
| **Direct Observed Treatment (nutritional supplements, other prescribed medication)** | Yes | Yes | Yes | Yes | Yes |
| Close monitoring of blood pressure | Refer | Yes (weekly monitoring if mild) | Yes | Yes | Yes |
| Counsel the woman and the family about complications (Pre-eclampsia and eclampsia) | No | Yes | Yes | Yes | Yes |
| Referral if the BP is not controlled. | (Immediate Referral) | Yes | Yes | Yes | Yes |
| Close observation and Referral of high-risk pregnancies (Primigravida, adolescents less than 18 and women over 35 years, Obese women, Women with essential or renal hypertension, Multiple pregnancy, Women with: | Yes (Immediate referral) | Referral | Yes |  |  |
| * Diabetes | Immediate | Yes | Yes | Yes | Yes |
| * Hydatidiform mole | Immediate | Yes | Yes | Yes | Yes |
| * Polyhydramnios | Immediate | Yes | Yes | Yes | Yes |
| * Hydrops fetalis) -Close Monitoring of Blood Pressure | Immediate | Yes | Yes | Yes | Yes |
| Regular monitoring of protein in urine(proteinuria). | No | Yes | Yes | Yes | Yes |
| Administer Anti-hypertensive medications according to IMPAC guidelines | No | Yes | Yes | Yes | Yes |
| Administer low dose of Aspirin as prescribed by doctors to prevent pre-eclampsia. | No | Yes (as prescribed) | Yes | Yes | Yes |
| Observe signs of eminent pre-eclampsia (Elevated diastolic BP above 110mmhg, headache, visual disturbance, Epigastric pain, oliguria<400ml/24hours, pulmonary oedema). | Immediate referral | Referral | Yes | Yes | Yes |
| Close monitoring of foetal condition (growth, movement, foetal heart) | No (urgent referral) | Yes & referral | Yes | Yes | Yes |
| Encourage the woman to have additional periods of rest | Yes | Yes | Yes | Yes | Yes |
| Provide normal diet. | Yes | Yes | Yes | Yes | Yes |
| Perform appropriate laboratory investigations i.e. | No | No | Yes | Yes | Yes |
| * Liver function tests | No | No | Yes | Yes | Yes |
| * Blood tests-platelets count; coagulation tests | No | No | Yes | Yes | Yes |
| * Renal function test (plasma electrolytes, blood urea, uric acid | No | No | Yes | Yes | Yes |
| Monitor for danger signals for severe preeclampsia or eclampsia. | No/Urgent referral | Yes and refer | Yes | Yes | Yes |
| If there are signs of growth restriction, consider an early delivery; if not continue hospitalization until term. | No/Urgent referral | No | Yes | Yes | Yes |
| Expedite delivery if gestation is above 37 weeks and there are signs of foetal compromise | Urgent referral | No | Yes | Yes | Yes |
| Controlling the blood pressure with antihypertensive drugs in case of severe pre-eclampsia (e.g., hydralazine). | Urgent referral | No | Yes | Yes | Yes |
| Control Fits in case of eclampsia using anticonvulsants (magnesium sulphate as a drug of choice (Diazepam may be used if there is no magnesium sulphate). | Urgent referral | No | No | Yes | Yes |
| Closely observe for complications of respiratory arrest while giving anticonvulsant and have antidotes readily available (calcium gluconate) | Urgent referral | No | No | Yes | Yes |
| Oxygen therapy -after any fit / convulsion | No | No | No | Yes | Yes |
| Resuscitation as may be required /ensure equipment is readily available (e.g., oxygen, suction apparatus etc.) Close observation of the patient | Urgent referral | Stabilize and urgent Referral | Yes | Yes | Yes |
| Monitoring and Referral of complications to the next level | Urgent referral | Referral | Yes | Yes | Yes |
| High Care | No | No | No | Yes | Yes |
| Intensive care | No | No | No | No | Yes |
| **Rehabilitation interventions** |  |  |  |  |  |
| Home based care | Yes | Yes | Yes | Yes | Yes |
| Treat as an outpatient | No | Yes | Yes | Yes | Yes |
| Follow up at lower levels based on guidance from higher levels of care (downwards referral) | Yes-home visits | Yes | Yes | Yes | Yes |
| **Palliative interventions** |  |  |  |  |  |
| Psycho-social Support | Yes | Yes | Yes | Yes | Yes |
| Spiritual support | Yes | Yes | Yes | Yes | Yes |
| Counselling | Yes | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |

### Pregnancy diabetes mellitus

Gestational diabetes mellitus (GDM) is defined as any degree of glucose intolerance with onset or first recognition during pregnancy

Table 8: prevention and management of pregnancy induced diabetes mellitus

| **Interventions by public health function** | **Interventions offered by level of service delivery** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Community** | **Health centre** | **District Hospital** | **Regional Hospital** | **Tertiary Hospital** |
| **Health Promotion Interventions** |  |  |  |  |  |
| Health education about diabetes mellitus in general | Yes | Yes | Yes | Yes | Yes |
| Education on effects of DM on pregnancy and vice versa | Yes | Yes | Yes | Yes | Yes |
| More detailed education on effects of DM on pregnancy and effects pregnancy on DM | Yes | Yes | Yes | Yes | Yes |
| Distribution of IEC materials on Diabetes including Pregnancy DM | Yes | Yes | Yes | Yes | Yes |
| Strengthen CHWs and Health workers knowledge on diabetes through trainings | Yes | Yes | Yes | Yes | Yes |
| **Disease prevention interventions** |  |  |  |  |  |
| Promote/Encourage pre-conception and early antenatal care | Yes | Yes | Yes | Yes | Yes |
| Promote healthy lifestyle -health diet; exercises |  |  |  |  |  |
| Trace of family members with diabetes mellitus in Community | Yes | Yes | Yes | Yes | Yes |
| Advice to female DM family members to have Pre-conception diabetic care | Yes | Yes | Yes | Yes | Yes |
| Encourage appropriate diet | Yes | Yes | Yes | Yes | Yes |
| Screening for Diabetes -Blood test (RBS) | No | Yes | Yes | Yes | Yes |
| **Curative interventions** |  |  |  |  |  |
| Full History of mother | No | Yes | Yes | Yes | Yes |
| Full history of pregnancy / current +/- previous | No | Yes | Yes | Yes | Yes |
| Full physical examination | No | Yes | Yes | Yes | Yes |
| Encourage adherence to treatment e.g., already known diabetics | Yes | Yes | Yes | Yes | Yes |
| Supportive care | No | Yes | Yes | Yes | Yes |
| Implementation of definitive management (Diet, exercise, medication for diabetes) | No | No | Yes | Yes | Yes |
| Monitoring of the foetus (heart rate etc | No | No | Yes | Yes | Yes |
| Plan for delivery | No | No | Yes | Yes | Yes |
| Resuscitation of very ill mothers and foetuses | No | Refer | Stabilize /refer | Yes | Yes |
| Ensure multi-disciplinary care for both mother and baby (Medical, Paediatric, Laboratory, pharmacy) | No | No | Yes | Yes | Yes |
| Referral to higher levels of care for management | Yes | yes | Yes | Yes | Yes |
| High Care | No | No | No | Yes | Yes |
| Intensive Care of both mother and child | No | No | No | No | Yes |
| **Tests (N/b these should also be done as part of routine checks** |  |  |  |  |  |
| Urine test (Glycosuria) | No | Yes | Yes | Yes | Yes |
| Glycated haemoglobin for DM control | No | No | Yes | Yes | Yes |
| Ultrasound Scan for foetal well being | No | No | Yes | Yes | Yes |
| Detailed biometric of the foetus | No | No | No | Yes | Yes |
| **Rehabilitation interventions** |  |  |  |  |  |
| Follow- up according to higher facility advice | Yes | Yes | Yes | Yes | Yes |
| Promote treatment adherence | Yes | Yes | Yes | Yes | Yes |
| Follow -up of ANC and diabetic condition | No | Yes | Yes | Yes | Yes |
| **Palliative interventions** |  |  |  |  |  |
| Psychosocial Support to patent and families | Yes | Yes | Yes | Yes | Yes |
| Spiritual support | Yes | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |

### Miscarriage/abortion

Miscarriage is defined as the loss of pregnancy less than 28 weeks gestation.

Table 9:prevention and management of miscarriage (< 28 wks. pregnancy)

| Interventions by public health function | Interventions offered by level of service delivery | | | | |
| --- | --- | --- | --- | --- | --- |
| Community | Health centre | District Hospital | Regional Hospital | Tertiary Hospital |
| **Health Promotion Interventions** |  |  |  |  |  |
| Create Awareness about miscarriages/abortion | Yes | Yes | Yes | Yes | Yes |
| Promotion of good Nutrition | Yes | Yes | Yes | Yes | Yes |
| Promote adoption of healthy lifestyles -exercise; plenty of rest/sleep; avoidance of alcohol/smoking | Yes | Yes | Yes | yes | Yes |
| Promote ANC attendance | Yes | Yes | Yes | Yes | Yes |
| Promote early health seeking behaviour | Yes | Yes | Yes | Yes | Yes |
| Create awareness on implications of unsafe abortions | Yes | Yes | Yes | Yes | Yes |
| Promote family planning | Yes | Yes | Yes | Yes | Yes |
| Discourage the use of harmful traditional medicinal practices | Yes | Yes | Yes | Yes | Yes |
| Train CHWs to identify early signs and symptoms of abortion (bleeding, cramps or abdominal pains, and or fever) | Yes | Yes | Yes | Yes | Yes |
| Conduct health dialogues on SRH issues | Yes | Yes | Yes | Yes | Yes |
| Distribute IEC materials | Yes | Yes | Yes | Yes | Yes |
| Training of HCWs on pre and post abortion care and on SRH | No | Yes | Yes | Yes | Yes |
| **Disease prevention interventions** |  |  |  |  |  |
| Early ANC especially for primigravidae and mothers with previous history of pregnancy loss | Yes /promote | Yes | Yes | Yes | Yes |
| Provide Vitamin Supplements for both mothers and fathers | No | Yes | Yes | Yes | Yes |
| Preconception referral for couples who had a miscarriage and planning for a pregnancy | Yes | Yes | Yes | Yes | Yes |
| Orientate clients on SRH rights | Yes | Yes | Yes | Yes | Yes |
| Pharmaceutical control of traditional medicines | Yes | Yes | Yes | Yes | Yes |
| Provision of family planning services | Yes | Yes | Yes | Yes | Yes |
| Routine screening of STIs at Outreach Services | Yes | Yes | Yes | Yes | Yes |
| Identification of early signs and symptoms of abortion (bleeding, cramps or abdominal pains, and or fever) | Yes | Yes | Yes | Yes | Yes |
| Promote bed rest management | No | No | Yes | Yes | Yes |
| Trace of family members with diabetes mellitus in Community | Yes | Yes | Yes | Yes | Yes |
| Pre-conceptual diabetic care for females with DM or with family history of DM | Yes | Yes | Yes | Yes | Yes |
| Encourage appropriate diet | Yes | Yes | Yes | Yes | Yes |
| **Curative interventions** |  |  |  |  |  |
| Detailed history about current pregnancy | No | Yes | Yes | Yes | Yes |
| Detailed history of previous pregnancies, if any (special attention to circumstances that surrounded previous miscarriage) | No | Yes | Yes | Yes | Yes |
| Adherence to medications as prescribed | Yes | Yes | Yes | Yes | Yes |
| Referral of any case of bleeding in pregnancy to health facilities | Yes –(urgent | Yes | Yes | Yes | Yes |
| Detailed history on Previous treatments for past events | No | Yes | Yes | Yes | Yes |
| Comprehensive Examination, especially for the source of the bleeding | No | Yes | Yes | Yes | Yes |
| **Investigations** |  |  |  |  |  |
| * Blood eg FBC and urine test | No | Yes | Yes | Yes | Yes |
| * Ultrasonography to establish the nature of the miscarriage | No | No | Yes | Yes | Yes |
| * Thyroid Function tests | No | No | No | Yes | Yes |
| * Autoantibodies tests | No | No | No | Yes | Yes |
| * DIC tests | No | No | No | Yes | Yes |
| * BHCG | No | No | No | Yes | Yes |
| * HbAc | No | No | No | Yes | Yes |
| * Xray | No | No | Yes | Ye s | Yes |
| supportive management | No | Yes | Yes | Yes | Yes |
| Pain management | Yes | Yes | Yes | Yes | Yes |
| Antibiotics in cases of septic abortion | No | Yes | Yes | Yes | Yes |
| Provide iron and folic acid supplements | No | Yes | Yes | Yes | Yes |
| Manual Vacuum aspiration for management of uncomplicated incomplete abortion/ miscarriage/ Manual Vacuum Aspiration for induced first trimester | No | Yes | Yes | Yes | Yes |
| Management of uncomplicated incomplete abortion/ miscarriage with misoprostol | No | Yes | Yes | Yes | Yes |
| Management (Manual vacuum Aspiration/Dilatation & curettage, surgical interventions if implicated) | No | No | Yes | Yes | Yes |
| Manual removal of the placenta | No | No | Yes | Yes | Yes |
| Blood transfusion if indicated | No | No | Yes | Yes | Yes |
| Counsel and provide FP | No | No | Yes | Yes | Yes |
| Conservative management of pregnancy | No | No | Yes | Yes | Yes |
| Post abortion care | No | No | Yes | Yes | Yes |
| Monitoring and Management of any complications | No | No | No | Yes | Yes |
| Decapitation | No | No | No | Yes | Yes |
| Hysterectomy if indicated | No | No | No | Yes | Yes |
| Management of secondary infertility | No | No | No | No | Yes |
| Referrals | Yes | Yes | Yes | Yes | Yes |
| definitive treatment according to the cause of the miscarriage | No | No | Yes | Yes | Yes |
| Plane for appropriate surgical interventions (cervical cerclages, evacuation) | No | No | Yes | Yes | Yes |
| workup/ treat complicated molar pregnancy | No | No | No | Yes | Yes |
| High care | No | No | No | Yes | Yes |
| Intensive care | No | No | No | No | Yes |
| **Rehabilitation interventions** |  |  |  |  |  |
| Home visits for follow up | Yes | Yes | Yes | Yes | Yes |
| Encourage compliance and adherence with medical check ups | Yes | Yes | Yes | Yes | Yes |
| Provision of Counselling and support | Yes | Yes | Yes | Yes | Yes |
| Post abortion care | No | Yes | Yes | Yes | Yes |
| Follow up for molar pregnancy | No | No | No | Yes | Yes |
| **Palliative interventions** |  |  |  |  |  |
| Full explanations about condition to couple (and their family) | No | Yes | Yes | Yes | Yes |
| Emotional support to the whole family | No | Yes | Yes | Yes | Yes |
| Counselling especially on fear of loss of future pregnancies/grieving | No | Yes | Yes | Yes | Yes |
| advice on planning for next pregnancy | No | Yes | Yes | Yes | Yes |
| Continuation of medications | No | No | Yes | Yes | Yes |
|  | | | | | |

### Obstetric fistula

Obstetric fistula  is a medical condition in which an abnormal opening develops in the [birth canal](https://en.wikipedia.org/wiki/Birth_canal) as a result of [childbirth](https://en.wikipedia.org/wiki/Childbirth). This can be between the [vagina](https://en.wikipedia.org/wiki/Vagina) and [rectum](https://en.wikipedia.org/wiki/Rectovaginal_fistula), [ureter](https://en.wikipedia.org/wiki/Ureter), or [bladder](https://en.wikipedia.org/wiki/Vesicovaginal_fistula). It can result in [incontinence of urine](https://en.wikipedia.org/wiki/Urinary_incontinence) or faeces. Complications may include [depression](https://en.wikipedia.org/wiki/Mood_disorder), [infertility](https://en.wikipedia.org/wiki/Infertility), and social isolation.Risk factors include [obstructed labour](https://en.wikipedia.org/wiki/Obstructed_labor), poor access to medical care, [malnutrition](https://en.wikipedia.org/wiki/Malnutrition), and [teenage pregnancy](https://en.wikipedia.org/wiki/Teenage_pregnancy).

Table 10: prevention and management of Obstetric Fistula

| Interventions by public health function | Interventions offered by level of service delivery | | | | |
| --- | --- | --- | --- | --- | --- |
| Community | Health centre | District Hospital | Regional Hospital | Tertiary Hospital |
| **Health Promotion Interventions** |  |  |  |  |  |
| Create awareness among community on Obstetric fistulae | Yes | Yes | Yes | Yes | Yes |
| Create awareness on: |  |  |  |  |  |
| * Need for early ANC | Yes | Yes | Yes | Yes | Yes |
| * Screening for pregnancy | Yes | Yes | Yes | Yes | Yes |
| * Screening for HIV, TB, syphilis, and Anaemia during the prenatal, and antenatal period | Yes | Yes | Yes | Yes | Yes |
| * TD vaccine for all women of childbearing age | Yes | Yes | Yes | Yes | Yes |
| * Need for health facility delivery and the use of maternity waiting homes where available. | Yes | Yes | Yes | Yes | Yes |
| * Early Initiation of breast feeding and exclusive breast feeding | Yes | Yes | Yes | Yes | Yes |
| * Kangaroo Mother Care/Kangaroo Father Care (KMC/KFC) for small for gestational age (SGA) and low birth weight (LBW) babies | Yes | Yes | Yes | Yes | Yes |
| * Danger signs of Pregnancy | Yes | Yes | Yes | Yes | Yes |
| * Importance of Immunizations | Yes | Yes | Yes | Yes | Yes |
| * Appropriate hand washing practices | Yes | Yes | Yes | Yes | Yes |
| Advocacy for improved sanitation, hygiene, and waste disposal | Yes | Yes | Yes | Yes | Yes |
| Discourage harmful traditional practice, including mandatory normal delivery | Yes | Yes | Yes | Yes | Yes |
| Promote Early health seeking behaviour | Yes | Yes | Yes | Yes | Yes |
| Promote Family planning | Yes | Yes | Yes | Yes | Yes |
| Promote Healthy Lifestyle (Exercice, good nutrition etc.) | Yes | Yes | Yes | Yes | Yes |
| Distribution of IEC Materials | Yes | Yes | Yes | Yes | Yes |
| Strengthen CHWs and health workers knowledge on obstetric fistula through trainings | Yes | Yes | Yes | Yes | Yes |
| **Disease prevention interventions** |  |  |  |  |  |
| Encourage early initiation and exclusive breast feeding | Yes | Yes | Yes | Yes | Yes |
| Nutritional supplementation to mothers | Yes | Yes | Yes | Yes | Yes |
| Provide ANC services | Yes (promote) | Yes | Yes | Yes | Yes |
| Guarantee timely referral of mothers at high risk of prolonged labour | Yes | Yes | Yes | Yes | Yes |
| Enable access to a health facility | Yes | Yes | Yes | Yes | Yes |
| Community based maternal and neonatal death surveillance (verbal autopsy) | Yes | Yes | Yes | Yes | Yes |
| Provision of: |  |  |  |  |  |
| * Point of care testing for HIV and syphilis, Hb | No | Yes | Yes | Yes | Yes |
| * Early initiation of ART and treatment for syphilis for eligible cases at the ANC | No | Yes | Yes | Yes | Yes |
| * Td vaccination | No | Yes | Yes | Yes | Yes |
| * Antibiotics for selected mothers with PROM. | No | Yes | Yes | Yes | Yes |
| * Maternal corticosteroids for preterm labour. | No | Yes | Yes | Yes | Yes |
| * Clean and safe delivery | No | Yes | Yes | Yes | Yes |
| Essential new-born care which includes: |  |  |  |  |  |
| * Stimulate breathing and resuscitate when indicated | No | Yes | Yes | Yes | Yes |
| * Clean cord care | No | Yes | Yes | Yes | Yes |
| * Promote skin to skin contact | No | Yes | Yes | Yes | Yes |
| * Maintain warm temperature | No | Yes | Yes | Yes | Yes |
| * Prophylactic Tetracycline eye ointment | No | Yes | Yes | Yes | Yes |
| * Early Initiation and exclusive breast feeding | No | Yes | Yes | Yes | Yes |
| * Kangaroo mother/father care * (KMC/KFC) | No | Yes | Yes | Yes | Yes |
| * Prophylactic antibiotics for babies born with a set up for infection. | No | Yes | Yes | Yes | Yes |
| Postnatal and postpartum health facility and home visits | No | Yes | Yes | Yes | Yes |
| Nevirapine prophylaxis for the baby when indicated | No | Yes | Yes | Yes | Yes |
| Vaccination (BCG, Polio) | No | Yes | Yes | Yes | Yes |
| Early infant diagnosis for HIV | No | Yes | Yes | Yes | Yes |
| Provide Iron/folate tablets. | No | Yes | Yes | Yes | Yes |
| Distribution of ITNs | No | Yes | Yes | Yes | Yes |
| Medical check-up including BMI, BP, serial weight measurements, physical exam. | No | Yes | Yes | Yes | Yes |
| Routine Laboratory check-up like Haemoglobin, blood group and RH, urine, serology tests for HIV, syphilis, Hep B. | No | Yes | Yes | Yes | Yes |
| Imaging services like ultra-sound. | No | Yes | Yes | Yes | Yes |
| Anti D prophylaxis | No | Yes | Yes | Yes | Yes |
| Regular check-ups | Yes | Yes | Yes | Yes | Yes |
| Abdominal Examination | No | No | Yes | Yes | Yes |
| Pelvic Exam | No | No | Yes | Yes | Yes |
| Reassessment of the maternal and foetal conditions, and progress of labour | No | No | Yes | Yes | Yes |
| Male partner testing for HIV, syphilis and Hep B. | No | No | Yes | Yes | Yes |
|  |  |  |  |  |  |
| **Curative interventions** |  |  |  |  |  |
| Comprehensive history taking (current and past Pregnancy) | No | Yes | Yes | Yes | Yes |
| Maternal assessment (Physical and General) | No | No | Yes | Yes | Yes |
| Fetal Assessment (Fetal heart rate) | No | No | Yes | Yes | Yes |
| Supportive management (IV Line, catheterization etc.) | No | Yes | Yes | yes | Yes |
| Direct Observed therapy | Yes | Yes | Yes | Yes | Yes |
| Treatment (nutritional supplements, other prescribed medication) | Yes | Yes | Yes | Yes | Yes |
| Provide First Aid before referral to the next level | Yes | Yes | Yes | Yes | Yes |
| Regular check-ups. | Yes | Yes | Yes | Yes | Yes |
| Treatment of acute maternal infection | No | Yes | Yes | Yes | Yes |
| Referral of complications (prolonged labour) to the next level. | Immediate referral of any mother to facility for delivery | Yes | Yes | Yes | Yes |
| **Investigations** |  |  |  |  |  |
| * Blood grouping and X-match | No | No | Yes | Yes | Yes |
| * Ultra- sound | No | No | Yes | Yes | Yes |
| Administration of maternal corticosteroids | No | No | Yes | Yes | Yes |
| Management of all maternal and foetal complications |  |  |  |  |  |
| Obstructed labour | No | No | Yes | Yes | Yes |
| Fresh fistula | No | No | Yes | Yes | Yes |
| Fistula ready to repair | No | No | Yes | Yes | Yes |
| Repaired fistula | No | No | Yes | Yes | Yes |
| Management of Subsequent pregnancies | No | No | Yes | Yes | Yes |
| Management of all maternal Obstetric complications | No | No | No | Yes | Yes |
| Definitive management | No | No | No | Yes | Yes |
| High Care | No | No | No | Yes | Yes |
| Intensive Care Unit | No | No | No | No | Yes |
| Follow up Including through referral back | Yes | Yes | Yes | Yes | Yes |
| **Rehabilitation interventions** |  |  |  |  |  |
| Follow up at household level (Self-care, nutrition) and also at facilities | Yes | Yes | Yes | Yes | Yes |
| Draw the pre and post repair plan | No | No | No | No | Yes |
| Follow up on the pre and post repair plan | No | No | No | Yes | Yes |
| Advise and plan for future repair of damaged organs | No | No | No | Yes | Yes |
| **Palliative interventions** |  |  |  |  |  |
| Psychosocial Support for both patient and family | Yes | Yes | Yes | Yes | Yes |
| Promote /support Resumption of family life, | Yes | Yes | Yes | Yes | Yes |
| subsistence practices | Yes | Yes | Yes | Yes | Yes |
| integrating back into community | Yes | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |

### Infertility

Infertility is a disease of the male or female reproductive system defined by the failure to achieve a pregnancy after 12 months or more of regular unprotected sexual intercourse. It may be caused by a number of different factors such as environmental pollutants, toxins; lifestyle factors such as smoking and excessive use of alcohol, obesity among others. On the other hand, it is not always possible to explain the cause of infertility (un-explained infertility)

In the female, infertility may be caused by:

* Blocked fallopian tubes caused by untreated sexually transmitted infections (Chlamydia, STIs)
* complications of unsafe abortion
* Uterine disorders which could be inflammatory (endometriosis, PID), congenital (septate uterus), or benign (fibroids);
* Disorders of the ovaries, such as polycystic ovarian syndrome and other follicular disorders.
* Endocrine disorders causing imbalances of reproductive hormones. (Pituitary cancers and hypopituitarism).

-In the male, infertility may be caused by:

* Obstruction (ejaculatory ducts and seminal vesicles). due to injuries or infections
* Hormonal disorders of pituitary gland, hypothalamus, and testicles. (testosterone)
* Testicular failure to produce sperm (varicoceles or chemotherapy).
* Abnormal sperm function and quality. abnormal shape (morphology) and movement (motility)

Table 11:prevention and management of infertility

| Interventions by public health function | Interventions offered by level of service delivery | | | | |
| --- | --- | --- | --- | --- | --- |
| Community | Health centre | District Hospital | Regional Hospital | Tertiary Hospital |
| **Health Promotion Interventions** |  |  |  |  |  |
| Create awareness on infertility -including the possible causes | Yes | Yes | Yes | Yes | Yes |
| Health education on associated risk factors eg smoking in women | Yes | Yes | Yes | Yes | Yes |
| Promote healthy lifestyles -Healthy diet; exercises ; maintenance of healthy weight; avoidance of smoking and harmful use of alcohol | Yes | Yes | Yes | Yes | Yes |
| Distribution of IEC materials | Yes | Yes | Yes | Yes | Yes |
| Strengthening CHWs and Health worker knowledge of Infertility | Yes | Yes | Yes | Yes | Yes |
| **Disease prevention interventions** |  |  |  |  |  |
| Advice /guidance on healthy lifestyle | Yes | Yes | Yes | Yes | Yes |
| Advice on avoidance of unprotected/ casual sexual | Yes | Yes | Yes | Yes | Yes |
| Early detection and treatment of STIs, in particular, chlamydia infection in women | No | Yes | Yes | Yes | Yes |
| Preventing complications of unsafe abortion, postpartum sepsis and abdominal/pelvic surgery | No | Yes | Yes | Yes | Yes |
| Addressing environmental toxins associated with infertility | No | Yes | Yes | Yes | Yes |
| Preventing initiation of cigarette smoking in adolescents and facilitating smoking cessation among adults | No | Yes | Yes | Yes | Yes |
| Promoting physical activity and a healthy diet | No | Yes | Yes | Yes | Yes |
| Counsel to discourage harmful traditional practices. | No | No | Yes | Yes | Yes |
| **Curative interventions** |  |  |  |  |  |
| Comprehensive history taking | No | No | Yes | Yes | Yes |
| General medical examination, BMI, BP | No | No | Yes | Yes | Yes |
| Counselling | Yes | Yes | Yes | Yes | Yes |
| Referral to next level | Yes | Yes | Yes | Yes | Yes |
| Treatment for STIs and PID | No | Yes | Yes | Yes | Yes |
| Abdominal and pelvic Examination | No | No | Yes | Yes | Yes |
| Pelvic routine ultrasound | No | No | Yes | Yes | Yes |
| Routine Laboratory check-up like | No | No | Yes | Yes | Yes |
| Haemoglobin, blood group, lipid profile | No | No | Yes | Yes | Yes |
| Male partner examination | No | No | Yes | Yes | Yes |
| **In men:** |  |  |  |  |  |
| general physical exam and genital examination | No | No | Yes | Yes | Yes |
| Semen analysis (spermogram). | No | No | No | Yes | Yes |
| Hormone testing (testosterone and other male hormones.) | No | No | No | Yes | Yes |
| Testicular biopsy | No | No | No | No | Yes |
| Imaging. MRI, transrectal or scrotal ultrasound, or a test of the vas deferens (vasography) | No | No | No | No | Yes |
| **In women** |  |  |  |  |  |
| General physical exam, including gynaecological exam | No | No | Yes | Yes | Yes |
| Ovulation testing (blood test measures hormone levels to determine ovulating). | No | No | No | No | Yes |
| Hormone testing. (Oestrogen, progesterone, testosterone, FSH, LH, prolactin) | No | No | No | Yes | Yes |
| Pelvic ultrasound: looks for uterine or ovarian disease. | No | No | Yes | Yes | Yes |
| Hysterosalpingography | No | No | Yes | Yes | Yes |
| Ovarian reserve testing. (Helps determine the quantity of the eggs available for ovulation). | No | No | No | No | Yes |
| Laparoscopy | No | No | No | No | Yes |
| Hysteroscopy | No | No | No | No | Yes |
| Ovarian stimulation | No | No | No | No | Yes |
| Hydrosalpinx treatment | No | No | No | No | Yes |
| Laparoscopic Surgery to open the tubes | No | No | No | No | Yes |
| Referral for assisted reproductive techniques, such as IVF | Yes | Yes | Yes | Yes | Yes |
| **Rehabilitation interventions** |  |  |  |  |  |
| Follow up at lower levels including household level based on advice /guidance from higher levels (referral back | Yes | Yes | Yes | Yes | Yes |
| **Palliative interventions** |  |  |  |  |  |
| Psychosocial Support for couples who live with infertility | Yes | Yes | Yes | Yes | Yes |
| promote integration of counselling services on child-adoption | Yes | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |

Menstrual disorders

Menstrual disorder are changes to the menstrual cycle that result in missed periods, irregular periods, or excessive bleeding.

Table 12:prevention and management of Menstrual Disorders

| **Interventions by public health function** | **Interventions offered by level of service delivery** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Community** | **Health centre** | **District Hospital** | **Regional Hospital** | **Tertiary Hospital** |
| **Health Promotion Interventions** |  |  |  |  |  |
| Create community awareness and education on various menstrual disorders | Yes | Yes | Yes | Yes | Yes |
| Distribute and display IEC materials focusing on menstrual disorders | Yes | Yes | Yes | Yes | Yes |
| Conduct sensitization campaigns | Yes | Yes | Yes | Yes | Yes |
| Advocate on early health seeking behaviour | Yes | Yes | Yes | Yes | Yes |
| promotion of hygienic practices (self-care) | Yes | Yes | Yes | Yes | Yes |
| promote WASH | Yes | Yes | Yes | Yes | Yes |
| Training of CHWs and Health workers on menstrual disorders | Yes | Yes | Yes | Yes | Yes |
| advocate for free sanitary towels | Yes | Yes | Yes | Yes | Yes |
| **Disease prevention interventions** |  |  |  |  |  |
| Advocate against early sexual debut | Yes | Yes | Yes | Yes | Yes |
| Train adolescents and young people on menstrual cycle and early signs of menstrual disorders. | Yes | Yes | Yes | Yes | Yes |
| Train adolescents and young people on sexuality | Yes | Yes | Yes | Yes | Yes |
| Diet management on food that accelerate menstrual disorders such as salt, caffeine etc | Yes | Yes | Yes | Yes | Yes |
| **Curative interventions** |  |  |  |  |  |
| History talking | No | Yes | Yes | Yes | Yes |
| Physical and clinical exam | No | Yes | Yes | Yes | Yes |
| Counsel the client. | Yes | Yes | Yes | Yes | Yes |
| Pain management before referral | Yes | Yes | Yes | Yes | Yes |
| Dietary management | No | Yes | Yes | Yes | Yes |
| Provide Hormonal contraceptives | No | Yes | Yes | Yes | Yes |
| Administer HPV | No | Yes | Yes | Yes | Yes |
| Perform blood tests, hormonal, ultrasound, biopsy | No | No | Yes | Yes | Yes |
| Endometrial ablation | No | No | Yes | Yes | Yes |
| Endometrial stripping through Dilation and Curettage (D&C | No | No | No | Yes | Yes |
| Anti-fibrinolytic | No | No | No | Yes | Yes |
| **Rehabilitation interventions** |  |  |  |  |  |
| Psychosocial support of patients and families | Yes | Yes | Yes | Yes | Yes |
| Parental counselling | No | No | Yes | Yes | Yes |
| **Palliative interventions** |  |  |  |  |  |
| Provide Psychological support | Yes | Yes | Yes | Yes | Yes |
| Support for family and caregivers | Yes | Yes | Yes | Yes | Yes |
| Support to self-help groups | Yes | Yes | Yes | Yes | Yes |
| Information and counselling in managing menstrual disorders. | No | Yes | Yes | Yes | Yes |
| Psychosocial | No | No | No | No | Yes |
|  |  |  |  |  |  |

## Neonatal/new-born conditions

The table below summarizes the interventions for the neonatal conditions including prematurity, birth asphyxia, neonatal sepsis and neonatal jaundice.

### Prematurity, birth asphyxia, neonatal sepsis & neonatal jaundice

Table 13:prevention and management of neonatal conditions (prematurity; birth asphyxia. neonatal sepsis and neonatal jaundice

| Interventions by public health function | Interventions offered by level of service delivery | | | | |
| --- | --- | --- | --- | --- | --- |
| Community | Health centre | District Hospital | Regional Hospital | Tertiary Hospital |
| **Health Promotion Interventions** |  |  |  |  |  |
| Awareness creation on: |  |  |  |  |  |
| * Screening for HIV, TB, syphilis and Anaemia during the prenatal, and antenatal period | Yes | Yes | Yes | Yes | Yes |
| * TD vaccine for all women of childbearing age | Yes | Yes | Yes | Yes | Yes |
| * the need for health facility delivery and the use of maternity waiting homes where available. | Yes | Yes | Yes | Yes | Yes |
| * Early Initiation of breast feeding and exclusive breast feeding | Yes | Yes | Yes | Yes | Yes |
| * Kangaroo Mother Care/Kangaroo Father Care (KMC/KFC) for small for gestational age (SGA) and low birth weight (LBW) babies | Yes | Yes | Yes | Yes | Yes |
| * danger signs in the mother and new-born during the postnatal and postpartum period | Yes | Yes | Yes | Yes | Yes |
| * Importance of Immunization (BCG, Polio) | Yes | Yes | Yes | Yes | Yes |
| * Awareness on proper sanitation, hygiene, and waste disposal -includes awareness on hand hygiene | Yes | Yes | Yes | Yes | Yes |
| * Family planning | Yes | No | Yes | Yes | Yes |
| Discourage harmful traditional practice | Yes | Yes | Yes | Yes | Yes |
| Promote /Encourage Early health seeking behaviour | Yes | yes | Yes | Yes | Yes |
| Supervision on adequate documentation and reporting activities. | Yes | Yes | Yes | Yes | Yes |
| Monitoring and evaluation for quality of care including infection prevention practices | Yes | Yes | Yes | Yes | Yes |
| Operational research | Yes | Yes | Yes | Yes | Yes |
| Distribution of IEC materials | Yes | Yes | Yes | Yes | Yes |
| Strengthening CHWs and health workers knowledge on neonatal conditions | Yes | Yes | Yes | Yes | Yes |
| M and E | No | No | Yes | Yes | Yes |
| **Disease prevention interventions** |  |  |  |  |  |
| Promote Early initiation and exclusive breast feeding | Yes | Yes | Yes | Yes | Yes |
| Guarantee timely referral of cases | Yes | Yes | Yes | Yes | Yes |
| Advocacy for better access to water, sanitation and hygiene | Yes | Yes | Yes | Yes | Yes |
| Community based maternal and neonatal death audit reports | Yes | Yes | Yes | Yes | Yes |
| Surveillance on harmful traditional practice | Yes | Yes | Yes | Yes | Yes |
| Nutritional supplementation to mothers | Yes | Yes | Yes | Yes | Yes |
| Provision of Point of care testing for HIV and syphilis | No | Yes | Yes | Yes | Yes |
| Dry Blood Spot (DBS) for early infant diagnosis of HIV infection | No | Yes | Yes | Yes | Yes |
| Early initiation of ART and treatment for syphilis for eligible cases at the ANC | No | Yes | Yes | Yes | Yes |
| Td vaccination | No | Yes | Yes | Yes | Yes |
| Treatment of acute maternal infection | No | Yes | Yes | Yes | Yes |
| Antibiotics for selected mothers with PROM. | No | Yes | Yes | Yes | Yes |
| Maternal corticosteroids for preterm labour | No | Yes | Yes | Yes | Yes |
| Promote skin to skin contact | No | Yes | Yes | Yes | Yes |
| Clean and safe delivery | No | Yes | Yes | Yes | Yes |
| Clean cord care | Yes | Yes | Yes | Yes | Yes |
| Maintain warm temperature | No | Yes | Yes | Yes | Yes |
| Prophylactic Tetracycline eye ointment | No | Yes | Yes | Yes | Yes |
| Kangaroo mother/father care  (KMC/KFC) | No | Yes | Yes | Yes | Yes |
| Prophylactic antibiotics for babies born with a set up for infection. | No | Yes | Yes | Yes | Yes |
| Postnatal and postpartum health facility and home visits | No | Yes | Yes | Yes | Yes |
| Nevirapine prophylaxis for the baby when indicated | No | Yes | Yes | Yes | Yes |
| Vaccination (BCG, Polio) | No | Yes | Yes | Yes | Yes |
| Early infant diagnosis for HIV | No | Yes | Yes | Yes | Yes |
| neonatal metabolic panel | No | No | No | No | Yes |
| Operational research (quality Improvement Projects) | No | No | Yes | Yes | Yes |
| **Curative interventions** |  |  |  |  |  |
| Directly Observed Treatment (DOT) of TB and HIV | Yes | Yes | Yes | Yes | Yes |
| Early identification and referral of sick new-borns | Yes | Yes | Yes | Yes | Yes |
| Review of laboratory results from pregnancy that include, Point of care tests (HIV, Urinalysis), Glucose-strips, Hemameter, Blood group and Rh, and urine dipsticks | No | Yes | Yes | Yes | Yes |
| Clean safe deliveries conducted by Skilled professionals | No | Yes | Yes | Yes | Yes |
| Monitoring of labour and the use of partograph | No | Yes | Yes | Yes | Yes |
| Treatment/  management of birth asphyxia according to the IMNCI recommendations | No | Yes (mild) | Yes | Yes | Yes |
| Pre-referral antibiotics for babies with possible severe bacterial infection | No | Yes | Yes | Yes | Yes |
| Safe transportation for very small babies | No | Yes | Yes | Yes | Yes |
| Encourage the use of KMC/KFC | Yes | Yes | Yes | Yes | Yes |
| Timely referral where indicated | No | Yes | Yes | Yes | Yes |
| **Diagnostics /investigations** |  |  |  |  |  |
| Laboratory services that include but are not limited to, |  |  |  |  |  |
| * Blood film microscopy | No | Yes | Yes | Yes | Yes |
| * Blood group and cross matching | No | Yes | Yes | Yes | Yes |
| * Blood chemistry | No | Yes | Yes | Yes | Yes |
| * Serum bilirubin | No | Yes | Yes | Yes | Yes |
| * Blood culture and sensitivity | No | Yes | Yes | Yes | Yes |
| * CSF | No | No | Yes | Yes | Yes |
| * Stool Microscopy | No | Yes | Yes | Yes | Yes |
| * Urine Microscopy | No | Yes | Yes | Yes | Yes |
| * blood gas analysis | No | No | Yes | Yes | Yes |
| * Advanced lab investigation for congenital anomalies -TORCH | No | No | No | No | Yes |
| Imaging modalities including: | No | No | Yes | Yes | Yes |
| * X-rays | No | No | Yes | Yes | Yes |
| * Ultrasound | No | No | Yes | Yes | Yes |
| * MRI | No | No | No | No | Yes |
| *Specific to neonatal jaundice* |  |  |  |  |  |
| *Use of Bilirubin charts and phototherapy* | No | No | Yes | Yes | Yes |
| *Exchange transfusions where indicated for neonatal jaundice* | No | No | Yes | Yes | Yes |
| *Corrective surgery for biliary atresia* | No | No | No | No | Yes |
| Neonatal high care management of severely sick babies | No | No | Yes | Yes | Yes |
| Therapeutic hypothermia and EEG monitoring | No | No | Yes | Yes | Yes |
| Nutritional support | No | No | Yes | Yes | Yes |
| Surfactant administration | No | No | Yes | Yes | Yes |
| Therapeutic and corrective Surgical intervention | No | No | No | No | Yes |
| neonatal intensive care that includes life support | No | No | No | No | Yes |
| **Rehabilitation interventions** |  |  |  |  |  |
| Physiotherapy | No | No | Yes | Yes | Yes |
| **Palliative interventions** |  |  |  |  |  |
| Psychosocial Support for parents /families (Counselling, General Hygiene, Nutrition etc.) | Yes | Yes | Yes | Yes | Yes |
| Spiritual support |  |  |  |  |  |
|  |  |  |  |  |  |

### Congenital abnormalities

Congenital abnormalities can be defined as structural or functional abnormalities that occur during intrauterine life. Also called birth defects, congenital disorders, or congenital malformations, these conditions develop prenatally and may be identified before or at birth, or later in life. These include bowel atresia’s, gastroschisis, Tracheo- oesophageal fistulas, diaphragmatic hernias, imperforate anus, hypospadias, undescended testes, cleft palate and cleft lip, hydrocephalus, myelomeningocele). **Others** may only be detected later in infancy, such as hearing defects.

Table 14 :Prevention and management of congenital anomalies

| Interventions by public health function | Interventions offered by level of service delivery | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| Community | Health centre | District Hospital | Regional Hospital | Tertiary Hospital |
| **Health Promotion Interventions** |  |  |  |  |  |
| Raising awareness on: |  |  |  |  |  |
| * The need for pre-conceptual care. | Yes | Yes | Yes | Yes | Yes |
| * The Risk of substance abuse | Yes | Yes | Yes | Yes | Yes |
| * Risks of use of Unprescribed medicine intake during pregnancy. (self-medication) | Yes | Yes | Yes | Yes | Yes |
| * Prevention of STIs | Yes | Yes | Yes | Yes | Yes |
| * Health balanced and optimal diet /Include folic acid rich diet | Yes | Yes | Yes | Yes | Yes |
| * Importance of coming for early ANC | Yes | Yes | Yes | Yes | Yes |
| * At least 8 ANC contacts during each pregnancy | Yes | Yes | Yes | Yes | Yes |
| * Pregnancy related danger signs. | Yes | Yes | Yes | Yes | Yes |
| * Harmful traditional practices. | Yes | Yes | Yes | Yes | Yes |
| * Nutrition promotion including food preparation demonstration sessions | Yes | Yes | Yes | Yes | Yes |
| Train of VHW on early identification of congenital abnormalities | Yes | Yes | Yes | Yes | Yes |
| One to one individual counselling on above issues | Yes | Yes | Yes | Yes | Yes |
| Distribution of IEC materials | Yes | Yes | Yes | Yes | Yes |
| Strengthening CHWs and health workers knowledge on Congenital anomalies through trainings | Yes | Yes | Yes | Yes | Yes |
| **Disease prevention interventions** |  |  |  |  |  |
| Counselling on pre-conceptual, antenatal attendance and Nutrition | Yes | Yes | Yes | Yes | Yes |
| Encourage and support Folic acid supplementation | Yes | Yes | Yes | Yes | Yes |
| Supplementation with Iron/folate tabs during the preconception period | No | Yes | Yes | Yes | Yes |
| Nutrition promotion | No | Yes | Yes | Yes | Yes |
| ANC with at least 8 contacts during each pregnancy | No | Yes | Yes | Yes | Yes |
| Testing for STIs during pregnancy | No | Yes | Yes | Yes | Yes |
| Ultra-sound exam during the second trimester (28 weeks) | No | No | Yes | Yes | Yes |
| Advanced investigation modalities for TORCH and metabolic panel and chromosomal analysis | No | No | No | No | Yes |
| M and E | No | No | Yes | Yes | Yes |
| Operational research | No | No | Yes | Yes | Yes |
| **Curative interventions** |  |  |  |  |  |
| Comprehensive history and examination | No | Yes | Yes | Yes | Yes |
| Referral of affected babies. | Yes | Yes | Yes | Yes | Yes |
| Treatment of maternal syphilis and other infections | No | Yes | Yes | Yes | Yes |
| Assessment and stabilization of patients. | No | No | Yes | Yes | Yes |
| **Diagnostics/investigations** |  |  |  |  |  |
| * Blood tests eg Full blood count | No | No | Yes | Yes | Yes |
| * Kidney function tests | No | No | Yes | Yes | Yes |
| * TORCH | No | No | No | Yes | Yes |
| * Metabolic panel | No | No | No | Yes | Yes |
| * Echocardiogram etc. | No | No | No | Yes | Yes |
| Surgical correction where indicated. | No | No | No | No | Yes |
| Neonatal High care services | No | No | No | Yes | Yes |
| Follow up | Yes | Yes | Yes | Yes | Yes |
| **Rehabilitation interventions** |  |  |  |  |  |
| Community based neonatal care. | Yes | Yes | Yes | Yes | Yes |
| Physiotherapy /physical therapy including CBR | Yes | Yes | Yes | Yes | Yes |
| Post - natal/postpartum home visits on care of babies with congenital anomalies | Yes | Yes | Yes | Yes | Yes |
| **Palliative interventions** |  |  |  |  |  |
| Psycho-social &spiritual support for the family | Yes | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |

### Intra-uterine death (fresh and macerated still births)

Stillbirth is typically defined as foetal death or after 20 or 28 weeks of pregnancy, depending on the source.

Table 15:prevention and management of intra-uterine death - IUD

| **Interventions by public health function** | **Interventions offered by level of service delivery** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Community** | **Health centre** | **District Hospital** | **Regional Hospital** | **Tertiary Hospital** |
| **Health Promotion Interventions** |  |  |  |  |  |
| Create community awareness on intra-uterine deaths | Yes | Yes | Yes | Yes | Yes |
| Create awareness on: | Yes | Yes | Yes | Yes | Yes |
| * The need for pre-conceptual care. | Yes | Yes | Yes | Yes | Yes |
| * Risk of substance abuse | Yes | Yes | Yes | Yes | Yes |
| * Unprescribed medicine intake during pregnancy. | Yes | Yes | Yes | Yes | Yes |
| * Prevention of STIs | Yes | Yes | Yes | Yes | Yes |
| * Balanced and optimal diet | Yes | Yes | Yes | Yes | Yes |
| * importance of coming for early ANC | Yes | Yes | Yes | Yes | Yes |
| * At least 8 ANC contacts during each pregnancy | Yes | Yes | Yes | Yes | Yes |
| * Pregnancy related danger signs and early health seeking behaviour | Yes | Yes | Yes | Yes | Yes |
| * Harmful traditional practices. | Yes | Yes | Yes | Yes | Yes |
| * Domestic violence | Yes | Yes | Yes | Yes | Yes |
| * The need for Screening for HIV, TB, syphilis and anaemia during the prenatal, and antenatal period | Yes | Yes | Yes | Yes | Yes |
| * TD vaccine for all women of child-bearing age | Yes | Yes | Yes | Yes | Yes |
| * the need for health facility delivery and the use of maternity waiting homes where available. | Yes | Yes | Yes | Yes | Yes |
| * Appropriate hand washing practices | Yes | Yes | Yes | Yes | Yes |
| Advocacy for improved sanitation, hygiene and waste disposal systems | Yes | Yes | Yes | Yes | Yes |
| Distribution of IEC materials | Yes | Yes | Yes | Yes | Yes |
| Strengthen CHWs and Health workers knowledge on Intra-uterine deaths through trainings | Yes | Yes | Yes | Yes | Yes |
| **Disease prevention interventions** |  |  |  |  |  |
| Guidance /Counselling on the need pre-conceptual care, antenatal attendance and Nutrition | Yes | Yes | Yes | Yes | Yes |
| Provision of: |  |  |  |  |  |
| * ANC services | Promote | Yes | Yes | Yes | Yes |
| * Point of care testing for HIV and syphilis | No | Yes | Yes | Yes | Yes |
| * Early initiation of ART and treatment for syphilis for eligible cases at the ANC | No | Yes | Yes | Yes | Yes |
| * Td vaccination | No | Yes | Yes | Yes | Yes |
| Treatment of acute maternal infection | No | Yes | Yes | Yes | Yes |
| Antibiotics for selected mothers with PROM | No | Yes | Yes | Yes | Yes |
| Maternal corticosteroids for preterm labour. | No | Yes | Yes | Yes | Yes |
| Clean and safe delivery | No /promote | Yes | Yes | Yes | Yes |
| Essential new-born care. | No | Yes | Yes | Yes | Yes |
| Advanced Laboratory investigations for congenital (TORCH) and acquired infections (Blood, urine cultures) | No | No | No | No | Yes |
| Neonatal metabolic panel | No | No | No | No | Yes |
| Imaging services that include e.g., ultrasound | No | No | No | No | Yes |
| M and E | Yes | Yes | Yes | Yes | Yes |
| Operational research (quality Improvement Projects) | Yes | Yes | Yes | Yes | Yes |
| **Curative interventions** |  |  |  |  |  |
| Referral to next level as indicated | Yes | Yes | Yes | Yes | Yes |
| Monitoring of labour, use of partograph and CTG | No | Yes | Yes | Yes | Yes |
| refer to a health facility/ or to the appropriate level of care according to risk/underlying condition | Yes | Yes | Yes | Yes | Yes |
| **Investigations** |  |  |  |  |  |
| * Blood grouping and cross matching | No | Yes | Yes | Yes | Yes |
| * CSF | No | No | Yes | Yes | Yes |
| * Stool and urine microscopy | No | Yes | Yes | Yes | Yes |
| * Histology | No | No | Yes | Yes | Yes |
| Imaging: |  |  |  |  |  |
| * X-rays | No | No | Yes | Yes | Yes |
| * Ultra-sound | No | No | Yes | Yes | Yes |
| Management according to local guidelines | No | No | Yes | Yes | Yes |
| Therapeutic and corrective surgery | No | No | No | No | Yes |
| Follow up including through referral back | Yes | Yes | Yes | Yes | Yes |
| **Rehabilitation interventions** |  |  |  |  |  |
| Follow up-including through homebased care | Yes | yes | Yes | Yes | Yes |
| Down referral to lower levels when indicated | No | No | No | No | Yes |
| **Palliative interventions** |  |  |  |  |  |
| Psycho-social & spiritual support for the family | Yes | Yes | Yes | Yes | Yes |
| Counselling | Yes | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |

### Other Neonatal conditions

This section outlines the prevention and management of other neonatal conditions including:

* **Haematologic conditions**: these are disorders of the blood and blood-forming organs. In addition to blood cell cancers, hematologic diseases include rare genetic disorders, anaemia, conditions related to HIV, sickle cell disease, and complications from chemotherapy or transfusions.
* **Neonatal cardiac conditions:** Cardiovascular conditions (CVDs) are a group of disorders of the heart and blood vessels.
* **Endocrine and metabolic conditions:** Endocrine disorders involve an abnormality of one of the body's endocrine glands.
* **Neonatal cardiac conditions:** Cardiovascular conditions (CVDs) are a group of disorders of the heart and blood vessels.
* **Orthopaedic conditions/birth injuries;** injuries to the skeletal tissues
* **Neonatal respiratory conditions** (congenital pneumonia): affecting the airways and other structures of the lung.

Table 16:management and prevention of other neonatal Conditions

| Interventions by public health function | Interventions offered by level of service delivery | | | | |
| --- | --- | --- | --- | --- | --- |
| Community | Health centre | District Hospital | Regional Hospital | Tertiary Hospital |
| **Health Promotion Interventions** |  |  |  |  |  |
| To raise awareness on: |  |  |  |  |  |
| * The need for Screening for HIV, syphilis and Hep B during the prenatal, and antenatal period | Yes | Yes | Yes | Yes | Yes |
| * Td vaccine for all women of child-bearing age. | Yes | Yes | Yes | Yes | Yes |
| * The importance/need for health facility delivery and the use of maternity waiting homes where available. | Yes | Yes | Yes | Yes | Yes |
| * Early Initiation of breast feeding and exclusive breast feeding | Yes | Yes | Yes | Yes | Yes |
| * KMC /KFC for small for gestational age (SGA) and low birth weight (LBW) babies | Yes | Yes | Yes | Yes | Yes |
| * RH & ABO incompatibility | Yes | Yes | Yes | Yes | Yes |
| * Danger signs in the mother and new-born during the postnatal and postpartum period | Yes | Yes | Yes | Yes | Yes |
| * Immunization (BCG and Polio) | Yes | Yes | Yes | Yes | Yes |
| * Appropriate hand washing practices | Yes | Yes | Yes | Yes | Yes |
| * Personal and environmental hygiene | Yes | Yes | Yes | Yes | Yes |
| Discourage harmful traditional practice | Yes | yes | yes | yes | yes |
| Promote Early health seeking behaviour | Yes | Yes | Yes | Yes | Yes |
| Provide feedback for referred in cases | No | Yes | Yes | Yes | Yes |
| Supervision on proper case management and use of guidelines and protocols | No | No | Yes | Yes | Yes |
| Monitoring and evaluation for infection prevention practices as well as quality of care. | No | No | Yes | Yes | Yes |
| Distribution of IEC materials | Yes | Yes | Yes | Yes | Yes |
| Strengthening the capacity of CHWs and Health workers on Hematological conditions | Yes | Yes | Yes | Yes | Yes |
| Operational research | Yes | Yes | Yes | Yes | Yes |
| **Disease prevention interventions** |  |  |  |  |  |
| Early initiation and exclusive breast feeding | Yes | Yes | Yes | Yes | Yes |
| Guarantee timely referral of cases | Yes | Yes | Yes | Yes | Yes |
| Provide access to a health facility? | Yes | Yes | Yes | Yes | Yes |
| Postpartum & Postnatal health facility and home visits | Yes | Yes | Yes | Yes | Yes |
| Community based maternal and neonatal death audit reports | Yes | Yes | Yes | Yes | Yes |
| Surveillance on harmful traditional practice | Yes | Yes | Yes | Yes | Yes |
| Nutritional supplementation to mothers | Yes | Yes | Yes | Yes | Yes |
| Ensure no missed opportunities for vaccination | Yes | Yes | Yes | Yes | Yes |
| Provision of: |  |  |  |  |  |
| * Point of care testing for HIV, syphilis, and Hep B | No | Yes | Yes | Yes | Yes |
| * DBS for early infant diagnosis of HIV infection | No | Yes | Yes | Yes | Yes |
| * Early initiation of ART and treatment for syphilis for eligible cases at the ANC | No | Yes | Yes | Yes | Yes |
| * Td vaccination | No | Yes | Yes | Yes | Yes |
| Treatment of acute maternal infection | No | Yes | Yes | Yes | Yes |
| Antibiotics for selected mothers with PROM. | No | Yes | Yes | Yes | Yes |
| Maternal corticosteroids for preterm labour. | No | Yes | Yes | Yes | Yes |
| Clean and safe delivery | No | Yes | Yes | Yes | Yes |
| Essential new-born care which includes | No | Yes | Yes | Yes | Yes |
| * Stimulate breathing and resuscitate when indicated. | No | Yes | Yes | Yes | Yes |
| * Clean cord care | No | Yes | Yes | Yes | Yes |
| * Promote skin to skin contact | No | Yes | Yes | Yes | Yes |
| * Maintain warm temperature | No | Yes | Yes | Yes | Yes |
| * Prophylactic Tetracycline eye ointment | No | Yes | Yes | Yes | Yes |
| * Vitamin K administration in case of haematological disorders | No | Yes | Yes | Yes | Yes |
| * Early initiation and exclusive breast feeding | No | Yes | Yes | Yes | Yes |
| * Kangaroo mother/father care KMC/KFC) | No | Yes | Yes | Yes | Yes |
| * Prophylactic antibiotics for babies born with a set up for infection. | No | Yes | Yes | Yes | Yes |
| Postpartum & Postnatal care | No | Yes | Yes | Yes | Yes |
| Nevirapine prophylaxis for the baby when indicated | No | Yes | Yes | Yes | Yes |
| Immunization (BCG and Polio) | No | Yes | Yes | Yes | Yes |
| Early infant diagnosis for HIV | No | Yes | Yes | Yes | Yes |
| Supervision on adequate documentation and reporting activities. | No | Yes | Yes | Yes | Yes |
| Monitoring and evaluation for infection prevention practices as well as quality of care | No | Yes | Yes | Yes | Yes |
| M and E | No | No | Yes | Yes | Yes |
| Operational research | No | No | Yes | Yes | Yes |
| **Curative interventions** |  |  |  |  |  |
| Early detection and referral of cases | Yes | Yes | Yes | Yes | Yes |
| Initiate KMC/KFC | Yes | Yes | Yes | Yes | Yes |
| **Investigations** |  |  |  |  |  |
| * Blood tests e.g. blood grouping and cross match; FBC | No | Yes | Yes | Yes | Yes |
| * CSF | No | No | Yes | Yes | Yes |
| * Urine tests | No | Yes | Yes | Yes | Yes |
| * Stool microscopy | No | Yes | Yes | Yes | Yes |
| * Neonatal metabolic panel | No | No | No | Yes | Yes |
| * X-rays | No | No | Yes | Yes | Yes |
| * Ultrasound | No | No | Yes | Yes | Yes |
| * Advanced laboratory investigations like genetic testing | No | No | No | No | Yes |
| * Blood gas analysis |  |  |  |  |  |
| Safe transportation for very small babies | No | Yes | Yes | Yes | Yes |
| All deliveries to be conducted by skilled professionals | No | Yes | Yes | Yes | Yes |
| Monitoring of labour and the use of partograph. | No | Yes | Yes | Yes | Yes |
| Treatment/ management of birth asphyxia - | No | Yes | Yes | Yes | Yes |
| Management of infections and conditions according to the IMNCI recommendations | No | Yes | Yes | Yes | Yes |
| Pre-referral antibiotics for babies with possible severe bacterial infection | No | Yes | Yes | Yes | Yes |
| Neonatal high care services including the use of continuous positive airway pressure (CPAP) devices and inotropes. | No | No | No | Yes | Yes |
| Neonatal intensive care that includes life support | No | No | No | No | Yes |
| Timely referral to next level as indicated | yes | Yes | Yes | Yes | Yes |
| Therapeutic and corrective Surgical intervention | No | No | No | No | Yes |
| M and E | Yes | Yes | Yes | Yes | Yes |
| Operational research | Yes | Yes | Yes | Yes | Yes |
| **Palliative interventions** |  |  |  |  |  |
| Psycho-social & spiritual support to parents and families | Yes | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |

## Child health services

### Diarrhoea

Diarrhoea disease is a leading cause of child mortality and morbidity in the world, and mostly results from contaminated food and water sources.

Table 17*:prevention and management of Diarrhoea*

| **Interventions by public health function** | **Interventions offered by level of service delivery** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Community** | **Health centre** | **District Hospital** | **Regional Hospital** | **Tertiary Hospital** |
| **Health Promotion Interventions** |  |  |  |  |  |
| Awareness to communities, families and individuals on diarrhoea including prevention measures | Yes | Yes | Yes | Yes | Yes |
| Promotion of appropriate feeding practices especially for young children -Early Initiation of breast feeding and exclusive breast feeding | Yes | Yes | Yes | Yes | Yes |
| Promotion of good hygiene practices e.g., Appropriate hand washing practices | Yes | Yes | Yes | Yes | Yes |
| Promotion of Environmental hygiene: (e.g., to promote behaviour change to end Open Defecation) | Yes | Yes | Yes | Yes | Yes |
| Intersectoral collaboration in improving water and sanitation in communities | Yes | Yes | Yes | Yes | Yes |
| Distribution of IEC materials | Yes | Yes | Yes | Yes | Yes |
| Strengthening CHWS/Health workers knowledge on diarrhoea through trainings | Yes | Yes | Yes | Yes | Yes |
| Promote early health seeking behaviour | Yes | Yes | Yes | Yes | Yes |
| Health education on Importance of immunization | No | No | Yes | Yes | Yes |
| **Disease prevention interventions** |  |  |  |  |  |
| Guidance on Hygiene practices (hand hygiene, water source, breast feeding) | Yes | Yes | Yes | Yes | Yes |
| Guidance on Proper feeding practices -breastfeeding | Yes | Yes | Yes | Yes | Yes |
| Guidance on Early Initiation and exclusive breast feeding | Yes | Yes | Yes | Yes | Yes |
| Encourage proper infant and young child feeding | Yes | No | Yes | Yes | Yes |
| Vaccination of all eligible under five children according to schedule. | Yes | Yes | Yes | Yes | Yes |
| Provision of Rota vaccination | No | Yes | Yes | Yes | Yes |
| Food and water quality surveillance | Yes | Yes | Yes | Yes | Yes |
| Monitoring and evaluation for infection prevention practices as well as quality of care. | No | Yes | Yes | Yes | Yes |
| **Curative interventions** |  |  |  |  |  |
| Physical and clinical examination | No | Yes | Yes | Yes | Yes |
| Early rehydration intervention (ORS) | Yes | Yes | Yes | Yes | Yes |
| Fluid replacement (IV-drip | No | Yes | Yes | Yes | Yes |
| Nutritional Support | Yes | Yes | Yes | Yes | Yes |
| IMCI case management including immunization, care of HIV exposed and infected children and referral for severe illness | No | Yes | Yes | Yes | Yes |
| Micro-nutrients supplementation (Zn, Vit A | Yes (thro outreaches | Yes | Yes | Yes | Yes |
| De-worming | Yes | Yes | Yes | Yes | Yes |
| Antibiotics for bloody diarrhoea | No | Yes | Yes | Yes | Yes |
| Early recognition of symptoms and signs as well as danger signs | Yes | Yes | Yes | Yes | Yes |
| Early Referral | Yes | Yes | Yes | Yes | Yes |
| Treatment of shock with Inotropes. | No | No | Yes | Yes | Yes |
| Management of underlying causes of the diarrhoea. | No | Yes | Yes | Yes | Yes |
| Treatment of severe dehydration with intravenous infusion | No | No | Yes | Yes | Yes |
| High care services | No | No | No | Yes | Yes |
| ICU management for complications | No | No | No | No | Yes |
| Laboratory investigation: | No | No | Yes | Yes | Yes |
| Stool Microscopy | No | No | Yes | Yes | Yes |
| Blood Tests – e.g. serum electrolytes; Urea and Creatinine | No | No | Yes | Yes | Yes |
| **Rehabilitation interventions** |  |  |  |  |  |
| Nutritional rehabilitation | Yes | Yes | Yes | Yes | Yes |
| Enrolment of children to out- Patient Therapeutic Program (OTP) | No | Yes | Yes | Yes | Yes |
| Physiotherapy for children with disabilities including thro0ugh CBR |  | Yes | Yes | Yes | Yes |
| Follow Up including through community IMCI | Yes | Yes | Yes | Yes | Yes |
| **Palliative interventions** |  |  |  |  |  |
| Psychosocial support | Yes | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |

### Measles

Measles is a highly contagious, serious disease caused by a virus in the paramyxovirus family and it is normally passed through direct contact and through the air. The virus infects the respiratory tract, then spreads throughout the body.

Table 18:prevention and management of measles

| Interventions by public health function | Interventions offered by level of service delivery | | | | |
| --- | --- | --- | --- | --- | --- |
| Community | Health centre | District Hospital | Regional Hospital | Tertiary Hospital |
| **Health Promotion Interventions** |  |  |  |  |  |
| Awareness creation among Families, community measles including on transmission and prevention of measures | Yes | Yes | Yes | Yes | Yes |
| Health education to parents; families and Communities on immunization including vaccination schedule for the young children | Yes | Yes | Yes | Yes | Yes |
| Community education on proper nutrition for young children | Yes | Yes | Yes | Yes | Yes |
| Promoting proper sanitation | Yes | Yes | Yes | Yes | Yes |
| Promoting proper planning especially in urban areas to avoid over-crowding through multi-sectoral approach | Yes | Yes | Yes | Yes | Yes |
| Distribution of IEC materials | Yes | Yes | Yes | Yes | Yes |
| Strengthening CHWs & Health workers knowledge on measles through trainings /sensitizations | Yes | Yes | Yes | Yes | Yes |
| Advocacy e.g. Commemorate National immunization days. | Yes | Yes | Yes | Yes | Yes |
| **Disease prevention interventions** |  |  |  |  |  |
| Vit. A supplementation in under 5s | Yes | Yes | Yes | Yes | Yes |
| Measles / Rubella vaccination to under 5s e.g., through SIAs | Yes | Yes | Yes | Yes | Yes |
| Measles Mumps Rubella Vaccine (MMR) vaccine | Yes | Yes | Yes | Yes | Yes |
| Post exposure vaccination for unvaccinated under 5s | No | Yes | Yes | Yes | Yes |
| Proper Nutrition for children under 5 years of age | Yes | Yes | Yes | Yes | Yes |
| Defaulter tracing | Yes | Yes | Yes | Yes | Yes |
| Identify trends of the disease in the community/Active surveillance and early detection | Yes | Yes | Yes | Yes | Yes |
| Record keeping/reporting | Yes | Yes | Yes | Yes | Yes |
| Contact tracing | Yes | Yes | Yes | Yes | Yes |
| Quarantine of suspected cases | Yes | Yes | Yes | Yes | Yes |
| Outreach services to the communities | No | Yes | Yes | Yes | Yes |
| Conduct campaigns on EPI targeted diseases including measles | No | Yes | Yes | Yes | Yes |
| Active case search and investigation | Yes | Yes | Yes | Yes | Yes |
| Isolation of children with measles to prevent further spread | No | Yes | Yes | Yes | Yes |
| **Curative interventions** |  |  |  |  |  |
| Recognition of features of measles in under 5s which include: flu-like symptoms, such as a runny nose, sneezing and a cough, sore, red eyes that may be sensitive to light; Fever; small greyish-white spots on the inside of the cheeks; watery eyes; swollen eyelids; body aches and pains; mouth ulcers | Yes | Yes | Yes | Yes | Yes |
| Home based care for children under 5s with measles | Yes | Yes | Yes | Yes | Yes |
| Supportive management for measles Including: |  |  |  |  |  |
| * *Provision of plenty of fluids to the Child to prevent dehydration* | Yes | Yes | Yes | Yes | Yes |
| * *Breastfeeding for the infants* | Yes | Yes | Yes | Yes | Yes |
| * *Plenty of rest* | Yes | Yes | Yes | Yes | Yes |
| * *Proper nutrition for a child with measles/Nutritional support* | Yes | Yes | Yes | Yes | Yes |
| Relieve of fever and aches with paracetamol or ibuprofen | Yes | Yes | Yes | Yes | Yes |
| Relieve Cough with cough suppressants | No | Yes | Yes | Yes | Yes |
| Monitoring and recognition for any features of worsening of measles in under 5s which includes shortness of breath; coughing up blood; confusion; fits (convulsions): Ear | Yes | Yes | Yes | Yes | Yes |
| Referral of the child with worsening measles condition to the health facilities | Yes | Yes | Yes | Yes | Yes |
| Vitamin A administration to under 5 s with measles—2 doses of Vitamin A within 24 hours | No | Yes | Yes | Yes | Yes |
| Emergency care with an aim of stabilizing the under 5s with complications due to measles before referral | No | Yes | Yes | Yes | Yes |
| Investigations—collect samples for lab | No | Yes | Yes | Yes | Yes |
| Management of any secondary infections/ due to measles through appropriate Antibiotics administration e.g., for pneumonia | No | Yes | Yes | Yes | Yes |
| Responses for AEFI | No | Yes | Yes | Yes | Yes |
| Referral to higher level for other complications | Yes | Yes | Yes | Yes | Yes |
| Follow up including through community IMCI | Yes | Yes | Yes | Yes | Yes |
| **Rehabilitation interventions** |  |  |  |  |  |
| Rehabilitation for children with complications such as blindness / deafness | No | No | Yes | Yes | Yes |
| **Palliative interventions** |  |  |  |  |  |
| Psychosocial support for parents/families of children with measles complications such as deafness; blindness | No | No | Yes | Yes | Yes |
|  |  |  |  |  |  |

### Tetanus

Tetanus, also known as lockjaw, is a serious but preventabledisease that affects thebody's muscles and nerves**.** It typically arises from a skin wound that becomes contaminated by a bacterium which is often found in soil.

Table 19:prevention and management of Tetanus

| **Interventions by public health function** | **Interventions offered by level of service delivery** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Community** | **Health centre** | **District Hospital** | **Regional Hospital** | **Tertiary Hospital** |
| **Health Promotion Interventions** |  |  |  |  |  |
| Awareness Creation among parents and families on Tetanus and preventive measures | Yes | Yes | Yes | Yes | Yes |
| Creation of awareness on importance of infant /child vaccination and on vaccination schedule | Yes | Yes | Yes | Yes | Yes |
| Training CHWs and Health care workers on Tetanus; including prevention measures | Yes | Yes | Yes | Yes | Yes |
| Health education activities to increase community awareness of the importance of tetanus immunization | Yes | Yes | Yes | Yes | Yes |
| Distribution of IEC materials on Tetanus | Yes | Yes | Yes | Yes | Yes |
| **Disease prevention interventions** |  |  |  |  |  |
| Immunization with tetanus-toxoid-containing vaccines (TTCV), which are included in routine immunization programs | Yes | Yes | Yes | Yes | Yes |
| Guidance on proper wound care | Yes | Yes | Yes | Yes | Yes |
| Proper wound care -including for surgical and dental procedures | Yes | Yes | Yes | Yes | Yes |
| Effective surveillance to identify areas or populations at high risk of tetanus | Yes | Yes | Yes | Yes | Yes |
| Effective tetanus vaccination monitoring system including immunization register, personal vaccination cards | Yes | Yes | Yes | Yes | Yes |
| Outreach activities in order to increase TT immunization coverage | Yes | Yes | Yes | Yes | Yes |
| Data keeping /monitoring the impact of interventions. and reporting | No | No | Yes | Yes | Yes |
| **Curative interventions** |  |  |  |  |  |
| Recognition of symptoms indicative of tetanus in the mothers including jaw cramping or the inability to open the mouth (lock jaw); muscle spasms often in the back, abdomen and extremities; sudden painful muscle spasms often triggered by sudden noises; trouble swallowing; seizures; Headache; fever and sweating | Yes | Yes | Yes | Yes | Yes |
| Immediate referral to a health facility | Yes | Yes | Yes | Yes | Yes |
| History and clinical diagnosis of tetanus based on; Clinical features | No | Yes | Yes | Yes | Yes |
| Relieve of other symptoms such as headache with analgesics; fever with anti-pyretic | Yes | Yes | Yes | Yes | Yes |
| Aggressive wound care | No | No | Yes | Yes | Yes |
| Immediate admission (Tetanus is a medical emergency | No | No | Yes | Yes | Yes |
| Immediate management with medicines human tetanus immune globulin (TIG) | No | No | Yes | Yes | Yes |
| Management/control of muscle spasms | No | No | Yes | Yes | Yes |
| Administration of antibiotics | No | No | Yes | Yes | Yes |
| Tetanus Vaccination since infection with tetanus does not confer natural immunity | No | No | Yes | Yes | Yes |
| Prevention and management of any complications such as respiratory failure | No | No | Yes | Yes | yes |
| High care services to manage complications | No | No | No | Yes | Yes |
| Intensive care services to manage any complications | No | No | No | No | Yes |
| Follow up | Yes | Yes | Yes | Yes | Yes |
| **Rehabilitation interventions** |  |  |  |  |  |
| Home based /or community based physical therapy rehabilitation for muscle movements | Yes | Yes | Yes | Yes | Yes |
| Physiotherapy, rehabilitation for muscle movements | No | Yes | Yes | Yes | Yes |
| **Palliative interventions** |  |  |  |  |  |
| Psychosocial support and counselling | Yes | Yes | Yes | Yes | Yes |
| Linkage to patient support groups | Yes | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |

### Malnutrition

Malnutrition refers to deficiencies, excesses, or imbalances in a person’s intake of energy and/or nutrients.

Table 20:Prevention and Management of Malnutrition

| **Interventions by public health function** | **Interventions offered by level of service delivery** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Community** | **Health centre** | **District Hospital** | **Regional Hospital** | **Tertiary Hospital** |
| **Health Promotion Interventions** |  |  |  |  |  |
| Create community awareness on malnutrition |  |  |  |  |  |
| Create awareness on the risk factors for malnutrition |  |  |  |  |  |
| Create awareness on: |  |  |  |  |  |
| * Importance of early Initiation of breast feeding and exclusive breast feeding | Yes | Yes | Yes | Yes | Yes |
| * Infant and young child feeding | Yes | Yes | Yes | Yes | Yes |
| * Proper hygiene including appropriate hand washing practices | Yes | Yes | Yes | Yes | Yes |
| * Promote Personal and environmental hygiene | Yes | Yes | Yes | Yes | Yes |
| * to discourage harmful traditional practice | Yes | Yes | Yes | Yes | Yes |
| * Early health seeking behaviour | Yes | Yes | Yes | Yes | Yes |
| * Early identification of malnutrition | Yes | Yes | Yes | Yes | Yes |
| * Risk factors to malnutrition | Yes | No | Yes | Yes | Yes |
| * Growth monitoring and Vit. A supplementation | Yes | Yes | Yes | Yes | Yes |
| Advocacy for multisectoral approach in provision of Clean safe water, improved sanitation, and hygiene | Yes | Yes | Yes | Yes | Yes |
| Advocacy for good nutrition through Commemoration of health events e.g., breast feeding week | Yes | Yes | Yes | Yes | Yes |
| Foster creation and collaboration with nutrition support and advocacy group | Yes | Yes | Yes | Yes | Yes |
| Promote immunization | Yes | Yes | Yes | Yes | Yes |
| Distribution of IEC materials | Yes | Yes | Yes | Yes | Yes |
| Strengthen CHWs and health workers knowledge on Malnutrition through capacity building | Yes | Yes | Yes | Yes | Yes |
| **Disease prevention interventions** |  |  |  |  |  |
| Screening for malnutrition (MUAC, Weight) | Yes | Yes | Yes | Yes | Yes |
| Community based IYCF and IMNCI practices | Yes | Yes | Yes | Yes | Yes |
| Frequent Growth monitoring using bukana | Yes | Yes | Yes | Yes | Yes |
| Vit A supplementation | Yes | Yes | Yes | Yes | Yes |
| Immunization as per immunization schedule | No./promote | Yes | Yes | Yes | Yes |
| Screening of patient with HIV and TB | Yes | Yes | Yes | Yes | Yes |
| Community based therapeutic feeding and supplementary feeding | Yes | Yes | Yes | Yes | Yes |
| Provide food demonstrations sessions (nutrition corners) | Yes | Yes | Yes | Yes | Yes |
| Provide micronutrient supplementation as recommended | Yes | Yes | Yes | Yes | Yes |
| WASH | Yes | Yes | Yes | Yes | Yes |
| M and E (integrated surveillance and response) | Yes | yes | Yes | Yes | Yes |
| Operational research | Yes | Yes | Yes | Yes | Yes |
| **Curative interventions** |  |  |  |  |  |
| Proper history taking and examination and routine nutritional assessment | No | Yes | Yes | Yes | Yes |
| Outpatient based management of Malnutrition. | No | Yes | Yes | Yes | Yes |
| Early diagnosis and management of any infections | No | Yes | Yes | Yes | Yes |
| Facility based therapeutic feeding (Moderate Acute Malnutrition programme [MAM], Outpatient therapeutic programme [OTP], Inpatient therapeutic programme [ITP]) | No | No | Yes | Yes | Yes |
| Treating underlying conditions (HIV, TB etc.) | No | No | Yes | Yes | Yes |
| Initiate and support use of ready-to-use-therapeutic-food (RUTF) by children with severe Acute Malnutrition on OTP | No | Yes | Yes | Yes | Yes |
| Laboratory investigations such as full blood count, blood chemistry etc.) | No | No | Yes | Yes | Yes |
| Stimulation, psychosocial support | No | No | Yes | Yes | Yes |
| Referral | Yes | Yes | Yes | Yes | Yes |
| Follow up care even at community level | Yes | Yes | Yes | Yes | Yes |
| **Rehabilitation interventions** |  |  |  |  |  |
| Nutritional rehabilitation | Yes | Yes | Yes | Yes | Yes |
| Linking care givers to nutritional support groups | Yes | Yes | Yes | Yes | Yes |
| **Palliative interventions** |  |  |  |  |  |
| Psychosocial support | No | No | Yes | Yes | Yes |
| Spiritual support | No | No | Yes | Yes | Yes |
|  |  |  |  |  |  |

### Iron deficiency anaemia

Anaemia is a condition in which there is a**reduced number of red blood cells or the haemoglobin concentration within the red blood cells is lower than** normal.

Table 21 :prevention and management of Iron Deficiency Anaemia

| **Interventions by public health function** | **Interventions offered by level of service delivery** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Community** | **Health centre** | **District Hospital** | **Regional Hospital** | **Tertiary Hospital** |
| **Health Promotion Interventions** |  |  |  |  |  |
| Create community awareness on Iron deficiency anaemia | Yes | Yes | Yes | Yes | Yes |
| Health education on: |  |  |  |  |  |
| * Risk factors /predisposing factors | Yes | Yes | Yes | Yes | Yes |
| * Need for early health seeking behaviour | Yes | Yes | Yes | Yes | Yes |
| * Good nutrition and the importance of a balanced diet. | Yes | Yes | Yes | Yes | Yes |
| * Need for healthy lifestyles such as regular exercise and good diet. | Yes | Yes | Yes | Yes | Yes |
| Multi sectoral approach in Strengthening or revitalizing community nutrition programs led by agriculture extension officer | Yes | Yes | Yes | Yes | Yes |
| Encouragement on establishment of vegetable gardens for family consumption. | Yes | Yes | Yes | Yes | Yes |
| Distribute IEC materials on IDA | Yes | Yes | Yes | Yes | Yes |
| Strengthen CHWs and health workers knowledge on IDA through trainings | Yes | Yes | Yes | Yes | Yes |
| **Disease prevention interventions** |  |  |  |  |  |
| Guidance on adoption of a healthy and balanced diet | Yes | Yes | Yes | Yes | Yes |
| Guidance on adoption of locally available high Iron content foods such as spinach and fish (fresh or processed) | Yes | Yes | Yes | Yes | Yes |
| Iron supplementation | Yes | Yes | Yes | Yes | Yes |
| Guidance on avoidance of alcohol and substance use | Yes | Yes | Yes | Yes | Yes |
| Avoidance of harmful traditional practices including the use of traditional drugs | Yes | Yes | Yes | Yes | Yes |
| **Curative interventions** |  |  |  |  |  |
| Comprehensive history and clinical assessment | Yes | Yes | Yes | Yes | Yes |
| Management through dietary change /dietary management |  |  |  |  |  |
| Administration of IV fluids | No | Yes | Yes | yes | Yes |
| Treatment of any infections. /Antibiotic therapy | No | Yes | Yes | Yes | Yes |
| Administration of anthelmintics for parasitic worms | Yes | Yes | Yes | Yes | Yes |
| Iron supplements / Serum Iron, Folate, Vitamin B12 and Ferritin. | No | Yes | Yes | Yes | Yes |
| Vitamin A supplementation | Yes | Yes | Yes | Yes | Yes |
| Management of underlying conditions e.g. ulcers; colon cancer | No | Yes | Yes | Yes | Yes |
| Blood transfusion in severe cases | No | No | Yes | Yes | Yes |
| Iron injections in severe cases | No | No | Yes | Yes | Yes |
| Early referral to next level | Yes | Yes | Yes | Yes | Yes |
| Support for Adherence to treatment | Yes | Yes | Yes | Yes | Yes |
| Treatment of other complications such as Congestive Cardiac Failure, Post-Partum Cardiomyopathy, Post-partum Haemorrhage | No | No | Yes | Yes | Yes |
| Surgical procedures such as cardiac transplant for refractory cases and bone marrow transplantation | No | No | No | No | Yes |
| Radiotherapy and Chemotherapy for malignant causes of IDA | No | No | No | No | Yes |
| Follow up | Yes | Yes | Yes | Yes | Yes |
| **Investigations** |  |  |  |  |  |
| Blood tests =rapid Hb. FBC: Iron | No | Yes | Yes | Yes | Yes |
| Endoscopy and Colonoscopy | No | No | No | No | Yes |
| Medical Imaging | No | No | No | No | Yes |
| **Rehabilitation interventions** |  |  |  |  |  |
| Nutritional support | Yes | Yes | Yes | Yes | Yes |
| Physiotherapy | Yes | Yes | Yes | Yes | Yes |
| **Palliative interventions** |  |  |  |  |  |
| Psychosocial support | Yes | Yes | Yes | Yes | Yes |
| Counselling | Yes | Yes | Yes | Yes | Yes |
| Family support and reassurance | Yes | Yes | Yes | Yes | Yes |
| Spiritual support | Yes | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |

### Intellectual disability

Intellectual disability means a significantly reduced ability to understand new or complex information and to learn and apply new skills (impaired intelligence). This results in a reduced ability to cope independently (impaired social functioning), and begins before adulthood, with a lasting effect on development.

Table 22:prevention and management of Intellectual disability

| **Interventions by public health function** | **Interventions offered by level of service delivery** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Community** | **Health centre** | **District Hospital** | **Regional Hospital** | **Tertiary Hospital** |
| **Health Promotion Interventions** |  |  |  |  |  |
| Create Community awareness on Intellectual disability (ID) | Yes | Yes | Yes | Yes | Yes |
| Sensitizing school communities on Intellectual disability | Yes | Yes | Yes | Yes | Yes |
| Promoting ANC attendance | Yes | Yes | Yes | Yes | Yes |
| Healthy education to pregnant women on avoidance of risk factors of ID during pregnancy -smoking; unhealthy diet; smoking etc | Yes | Yes | Yes | Yes | Yes |
| Promote good nutrition for pregnant women | Yes | Yes | Yes | Yes | Yes |
| Distribution of IEC materials | Yes | Yes | Yes | Yes | Yes |
| Health education on stigma and discrimination | Yes | Yes | Yes | Yes | Yes |
| Strengthen CHWs and Health workers knowledge on ID | Yes | Yes | Yes | Yes | Yes |
| **Disease prevention interventions** |  |  |  |  |  |
| Prevention of toxins exposure especially by pregnant women | Yes | Yes | Yes | Yes | Yes |
| Proper ANC care for all pregnant women | Yes | Yes | Yes | Yes | Yes |
| Promote good nutrition for pregnant women | Yes | Yes | Yes | Yes | Yes |
| Education to pregnant women on the risk factors e.g. alcohol and drug abuse | Yes | Yes | Yes | Yes | Yes |
| Guidance on good nutrition for pregnant women | Yes | Yes | Yes | Yes | Yes |
| Deliveries at health facilities | No (promote) | Yes | Yes | Yes | Yes |
| Early diagnosis and management of illnesses such as meningitis; measles; which can lead to ID | No | Yes | Yes | Yes | Yes |
| Screening pregnant women for infections | No | Yes | Yes | Yes | Yes |
| **Curative interventions** |  |  |  |  |  |
| Medical history taking and physical examination | No | Yes | Yes | Yes | Yes |
| Consideration of a child’s developmental milestones and adaptive behaviour | Yes | Yes | Yes | Yes | Yes |
| Early detection | Yes | Yes | Yes | Yes | Yes |
| Management of any underlying conditions e.g., seizures; mood disorders | No | No | Yes | Yes | Yes |
| Nutrition support | Yes | Yes | Yes | Yes | Yes |
| Linking the child with ID and parents/care givers to other social services | No | Yes | Yes | Yes | Yes |
| Education to parents /care givers and school community on handling the child and on continued behavioural therapy | Yes | Yes | Yes | Yes | Yes |
| Cognitive behavioural therapy | Yes | Yes | Yes | Yes | Yes |
| Multi-sectoral approach in elimination of harmful substances eg Eliminate all mercury and lead containing equipment | No | Yes | Yes | Yes | Yes |
| Referrals | Yes | Yes | Yes | Yes | Yes |
| Follow up | Yes | Yes | Yes | Yes | Yes |
| **Diagnosis/investigations** |  |  |  |  |  |
| Blood tests | No | No | Yes | Yes | Yes |
| Urine tests | No | No | Yes | Yes | Yes |
| Imaging tests eg to look for structural problems in the brain | No | No | No | Yes | Yes |
| EEG to look for evidence of seizures | No | No | No | No | Yes |
| **Rehabilitation interventions** |  |  |  |  |  |
| Physiotherapy to improve motor coordination includes thro ’CBR | Yes | Yes | Yes | Yes | Yes |
| Speech therapy | No | No | Yes | Yes | Yes |
| Occupational therapy | No | No | Yes | Yes | Yes |
| Visual and hearing rehabilitation /-Provide visual or hearing aid | No | No | Yes | Yes | Yes |
| Training with assistive devices | No | No | Yes | Yes | Yes |
| **Palliative interventions** |  |  |  |  |  |
| Psychosocial support and counselling of family | Yes | Yes | Yes | Yes | Yes |
| Support groups for people with ID | Yes | Yes | Yes | Yes | Yes |
| Linkage of child and family to group activities | Yes | Yes | Yes | Yes | Yes |
| Linking the child and parents /families to other social services | Yes | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |

### Poliomyelitis

Poliomyelitis was identified as a condition for inclusion in the EHP as **one of the diseases of public health concern that is targeted for eradication globally.** It is a highly infectious viral disease that largely affects children under 5 years of age. The virus is transmitted by person-to-person spread mainly through the foecal-oral route or, less frequently, by a common vehicle (e.g., contaminated water or food) and multiplies in the intestine, from where it can invade the nervous system and cause paralysis. Eradication of polio would benefit all sectors and economic models have shown that this would lead to a saving of at least US$ 40–50 billion, mostly in low-income countries. Most importantly, success will mean that no child will ever again suffer the terrible effects of lifelong polio-paralysis.

Table 23:prevention and management of Acute Flaccid Paralysis (Poliomyelitis)

| **Interventions by public health function** | **Interventions offered by level of service delivery** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Community** | **Health centre** | **District Hospital** | **Regional Hospital** | **Tertiary Hospital** |
| **Health Promotion Interventions** |  |  |  |  |  |
| Create awareness to the communities /families /parents on polio including preventive measures | Yes | Yes | Yes | Yes | Yes |
| Promote good hygiene practices e.g., safe disposal of waste /hand washing | Yes | Yes | Yes | Yes | Yes |
| Distribution of IEC materials on polio | Yes | Yes | Yes | Yes | Yes |
| Strengthen the CHWs and health workers knowledge on polio through trainings | Yes | Yes | Yes | Yes | Yes |
| **Disease prevention interventions** |  |  |  |  |  |
| Routine Immunization with OPV &IPV | No /promote | Yes | Yes | Yes | Yes |
| Effective surveillance to identify areas or populations at high risk of AFP | Yes | Yes | Yes | Yes | Yes |
| Outreach activities in order to increase Polio immunization coverage | Yes | Yes | Yes | Yes | Yes |
| Notification | Yes | Yes | Yes | Yes | Yes |
| Data keeping /monitoring | Yes | Yes | Yes | Yes | yes |
| Operational research | Yes | Yes | Yes | Yes | Yes |
| **Curative interventions** |  |  |  |  |  |
| Identification of AFP cases | Yes | Yes | Yes | Yes | Yes |
| Clinical and Physical examination: check for the abnormal reflexes, back and neck stiffness and difficulty in lifting the head or neck. | No | Yes | Yes | Yes | Yes |
| Refer to the next level | Yes | Yes | Yes | Yes | Yes |
| Immediate stool sample x2 specimen in 24hrs referral to a hospital for further management | No | Yes | Yes | Yes | Yes |
| Notify immediately | No | Yes | Yes | Yes | Yes |
| **Investigations** |  |  |  |  |  |
| [Culture test:](https://www.bing.com/search?q=Culture+test&filters=sid:%22OrionCulturetest15619%22+lite:%22.RGlhZ25vc2lzQ2Fyb3VzZWxQb2xlXlBvbGlvbXllbGl0aXNfZ2xvYmFsX2VuRGlhZ25vc2lzXlBPTEVeXl5PcmlvbkN1bHR1cmV0ZXN0MTU2MTk=%22) Sample of throat washings, stool or spinal fluid is taken for culture. | No | Yes | Yes | Yes | Yes |
| Blood test: to determine the level of antibodies of polio virus in the blood | No | Yes | Yes | Yes | Yes |
| Guidance on Self-care | Yes | Yes | Yes | Yes | Yes |
| * *A balanced and nutritious diet should be taken.* |  |  |  |  |  |
| * *Bed rest is recommended so as to ease the symptoms associated with the condition.* |  |  |  |  |  |
| Medication |  |  |  |  |  |
| * **Analgesics:** These are used to reduce the pain in muscles and ease headaches. | No | Yes | Yes | Yes | Yes |
| * Antibiotics for any infections | No | Yes | Yes | Yes | Yes |
| Monitoring and management of any complications | No | No | No | Yes | Yes |
| Follow up including through Community based care | Yes | Yes | Yes | Yes | Yes |
| **Rehabilitation interventions** |  |  |  |  |  |
| **Physical therapy:** Moderate exercises to maintain muscle function. | Yes | Yes | Yes | Yes | Yes |
| **Palliative interventions** |  |  |  |  |  |
| Psychosocial support and counselling | Yes | Yes | Yes | Yes | Yes |
| Linkage to patient support groups | Yes | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |

## INFECTIOUS DISEASE SERVICES

The scope of the interventions under this cluster covers prevention, treatment, and care of the key communicable diseases in Swaziland, namely HIV and AIDS, Tuberculosis, Malaria, Bilharzia and Soil Transmitted Helminths (STH). The interventions aim at utilization of preventive approaches, early detection and treatment, environmental management (for malaria, Bilharzia and STH), and counselling and testing (for HIV and TB). The summary of the interventions and their target populations are shown in Table 16, while the details of the interventions by level are given in the following tables

### Sexually Transmitted Infections Including HIV and AIDS

It is defined by**the occurrence of any of the more than 20 life-threatening cancers or “opportunistic infections”, so** named because they take advantage**of a weakened immune** system

Table 24:prevention and management of STIs including HIV/AIDS

| **STIs/HIV&AIDS Management Services** | **Service components offered by level of service delivery** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Community** | **Health centre** | **District Hospital** | **Regional Hospital** | **National Referral hospital** | |
| **Health Promotion** |  |  |  |  |  | |
| Health education | Yes | Yes | Yes | Yes | Yes | |
| Create mass awareness on STIs /HIV/AIDs | Yes | Yes | Yes | Yes | Yes | |
| Sensitization on comprehensive sexuality education | Yes | Yes | Yes | Yes | Yes | |
| Health education on risk factors for STIs /HIV /AIDs | Yes | Yes | Yes | Yes | Yes | |
| Social and behavioural change communication | Yes | Yes | Yes | Yes | Yes | |
| Information Education Communication (IEC) materials distribution | Yes | Yes | Yes | Yes | Yes | |
| Strengthen CHWs and health workers knowledge on STIs/HIV/AIDs through trainings | Yes | Yes | Yes | Yes | Yes | |
| Training on support for GBV Including first line support at community level | Yes | Yes | Yes | Yes | Yes | |
| Condom and lubricants demonstration and distribution | Yes | Yes | Yes | Yes | Yes | |
| Promote Condom use | Yes | Yes | Yes | Yes | Yes | |
| Promotion of HTS | No | Yes | Yes | Yes | Yes | |
| Promote early health seeking behaviour | Yes | Yes | Yes | Yes | Yes | |
| Promotion of stigma reduction | Yes | Yes | Yes | Yes | Yes | |
| **Prevention** |  |  |  |  |  | |
| Routine Screening for STIs | Yes | Yes | Yes | Yes | Yes | |
| ABC strategy | Yes | Yes | Yes | Yes | Yes | |
| Demonstration and Distribution of condoms eg. to key populations-sex workers, men who have sex with men, people who inject drugs, transgender populations, and prisoners. | Yes | Yes | Yes | Yes | Yes | |
| Incorporate screening and reinforce integration and linkage of maternal health, STI and HIV services | No | Yes | Yes | Yes | Yes | |
| STIs/HIV testing and counselling services | Yes | Yes | Yes | Yes | Yes | |
| Provider HIV, STI, Hepatitis testing and linkage to care | No | Yes | Yes | Yes | Yes | |
| Index testing and Partner notification | Yes | Yes | Yes | Yes | Yes | |
| Prevention of opportunistic infections | Yes | Yes | Yes | Yes | Yes | |
| Pre and post exposure prophylaxis | No | No | Yes | Yes | Yes | |
| TB screening |  |  |  |  |  | |
| Prophylaxis -TB prophylactic treatment (TPT, CTX etc) for eligible persons | No | Yes | Yes | Yes | Yes | |
| **Prevention of Mother to Child Transmission** |  |  |  |  |  | |
| * Testing and counselling | Yes | Yes | Yes | Yes | Yes | |
| * CD4 cell count testing | No | No | Yes | Yes | Yes | |
| * Provision of adequate ARV regimen (AZT or HAART) | No | No | Yes | Yes | Yes | |
| * Provision of infant ARVs (NVP) | No | No | Yes | Yes | Yes | |
| Syndromic management of Sexually transmitted Infections | No | Yes | Yes | Yes | Yes | |
| Male circumcision -VVMC |  |  |  |  |  | |
| * Male circumcision counselling | Yes | Yes | Yes | Yes | Yes | |
| * Syndromic management of STIs | No | Yes | Yes | Yes | Yes | |
| * Provider initiated counselling and testing | No | Yes | Yes | Yes | Yes | |
| * Surgery | No | No | Yes | Yes | Yes | |
| * Post- operative management | No | No | Yes | Yes | Yes | |
| Vaccinations /Hepatitis vaccinations | No | Yes | Yes | Yes | Yes | |
| Implement/Eliciting partner notification and index testing | No | Yes | Yes | Yes | Yes | |
| **Curative interventions** |  |  |  |  |  | |
| History taking | No | Yes | Yes | Yes | Yes | |
| Physical and clinical examination | No | Yes | Yes | Yes | Yes | |
| Provider initiated counselling and testing | No | Yes | Yes | Yes | Yes | |
| Clinical staging of HIV | No | No | Yes | Yes | Yes | |
| Supportive management | Yes | Yes | Yes | Yes | Yes | |
| * Nutritional support /Supplements | Yes | Yes | Yes | Yes | Yes | |
| Syndromic management of STIs | No | Yes | Yes | Yes | Yes | |
| Partner notification and expedited treatment for common STIs, /HIV | No | Yes | Yes | Yes | Yes | |
| ART initiation services | No | No | Yes | Yes | Yes | |
| Screening for TB and other opportunistic infections | No | Yes | Yes | Yes | Yes | |
| Management of opportunistic infections |  |  |  |  |  | |
| * Chronic diarrhoea | No | Yes | Yes | Yes | Yes | |
| * Oral Candidiasis | No | Yes | Yes | Yes | Yes | |
| * Oesophageal Candidiasis | No | No | Yes | Yes | Yes | |
| * Bacterial infections | No | Yes | Yes | Yes | Yes | |
| * PCP | No | No | Yes | Yes | Yes | |
| * Toxoplasmosis | No | No | Yes | Yes | Yes | |
| * TB | No | Yes | Yes | Yes | Yes | |
| * Extra pulmonary. | No | No | Yes | Yes | Yes | |
| * Cytomegalovirus Infection | No | No | Yes | Yes | Yes | |
| * Kaposi’s sarcoma | No | No | Yes | Yes | Yes | |
| * Lymphoma and other HIV related malignancies. | No | No | Yes | Yes | Yes | |
| ART Monitoring | Yes | Yes | Yes | Yes | Yes | |
| Management of TB co-infection | No | No | Yes | Yes | Yes | |
| Management of advanced HIV disease and complications | No | No | Yes | Yes | Yes | |
| ART refills | No | Yes | Yes | Yes | Yes | |
| Defaulter tracking | Yes | Yes | Yes | Yes | Yes | |
| Monitoring adherence to prescribed medications | Yes | Yes | Yes | Yes | Yes | |
| Management of any complications | No | Yes | Yes | Yes | Yes | |
| Management for sexual violence cases and referral to support services | No | Yes | Yes | Yes | Yes | |
| Treatment literacy /adherence counselling | Yes | Yes | Yes | Yes | Yes | |
| Chemotherapy for STIs that have progressed into cancer | No | No | No | Yes | Yes | |
| Radiotherapy for STIs that have progressed into cancer | No | No | No | No | Yes | |
| Referral and linkages | Yes | Yes | Yes | Yes | Yes | |
| HIV testing | Yes | Yes | Yes | Yes | Yes | |
| High care | No | No | No | Yes | Yes | |
| ICU services | No | No | No | No | Yes | |
| **Diagnostics** |  |  |  |  |  | |
| Blood tests | No | Yes | Yes | Yes | Yes | |
| CD4 count | No | No | Yes | Yes | Yes | |
| Imaging -X-rays | No | No | Yes | Yes | Yes | |
| Microscopy culture and sensitivity | No | Yes | Yes | Yes | Yes | |
| **Rehabilitation interventions** |  |  |  |  |  | |
| Home based care | Yes | Yes | Yes | Yes | Yes | |
| Community ART groups to increase adherence | Yes | Yes | Yes | Yes | Yes | |
| Physical therapy /physiotherapy services even thro’ CBR | Yes | Yes | Yes | Yes | Yes | |
| Rehabilitative behavioural change | No | Yes | Yes | Yes | Yes | |
| **Palliative interventions** |  |  |  |  |  | |
| Linkage to Support groups | Yes | Yes | Yes | Yes | Yes | |
| Psychosocial support /counselling for patients, care givers and families | Yes | Yes | Yes | Yes | Yes | |
| Care of carers program -psychosocial support for care givers | Yes | Yes | Yes | Yes | Yes | |
| Spiritual care | Yes | Yes | Yes | Yes | Yes | |
| Linkage to Self- help groups | Yes | Yes | Yes | Yes | Yes | |
| End of life care including home based care and support including pain management | Yes | Yes | Yes | Yes | Yes | |
|  |  |  |  |  |  | |

### Tuberculosis

Tuberculosis (TB) is caused by bacteria (Mycobacterium tuberculosis) that most often affect the lungs. Tuberculosis is curable and preventable. TB is spread from person to person through the air. When people with lung TB cough, sneeze or spit, they propel the TB germs into the air.

Table 25:prevention and management of tuberculosis

| **Interventions for Tuberculosis by public health function** | **Service components offered by level of service delivery** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Community** | **Health centre** | **District Hospital** | **Regional Hospital** | **National referral hospital** |
| **Health promotion** |  |  |  |  |  |
| Health education on TB | Yes | Yes | Yes | Yes | Yes |
| Community sensitization on early identification of TB and referrals | Yes | Yes | Yes | Yes | Yes |
| Health education on universal precaution for TB (e.g. Promotion of cough etiquette, Promotion of well-ventilated environment etc | Yes | Yes | Yes | Yes | Yes |
| Advocacy for TB including inclusion in schools’ curriculum; observing TB health days | Yes | Yes | Yes | Yes | Yes |
| Promoting multi-sectoral approach on addressing risk factors such as poor crowded housing and sanitation | Yes | Yes | Yes | Yes | Yes |
| Distribution of IEC materials | Yes | Yes | Yes | Yes | Yes |
| Social behaviour changes and communication (SBCC) | Yes | Yes | Yes | Yes | Yes |
| Establish advocacy clubs for TB including Youth TB clubs to advocate for TB including in schools | Yes | Yes | Yes | Yes | Yes |
| Training community health workers /Health workers on TB including prevention measures (strengthen their knowledge on TB) | Yes | Yes | Yes | Yes | Yes |
| **TB prevention** |  |  |  |  |  |
| TB screening | Yes | Yes | Yes | Yes | Yes |
| Promotion of cough etiquette | Yes | Yes | Yes | Yes | Yes |
| Promotion of well-ventilated environment | Yes | Yes | Yes | Yes | Yes |
| Promotion of protective clothing | Yes | Yes | Yes | Yes | Yes |
| Cough triaging and rapid processing of TB patients | No | Yes | Yes | Yes | Yes |
| Routine TB screening of HCWs | Refer CHWs | Yes | Yes | Yes | Yes |
| Active case finding in high-risk populations | Yes | Yes | Yes | Yes | Yes |
| Identification of suspected TB cases | Yes | Yes | Yes | Yes | Yes |
| Provision of HTC to all suspected TB cases and patients | Yes | Yes | Yes | Yes | Yes |
| Early diagnose and treatment to prevent further spread | No | Yes | Yes | Yes | Yes |
| Sputum collection, handling, and transportation for suspected TB cases to the testing facilities | Yes | Yes | Yes | Yes | Yes |
| TB household contact investigation | Yes | Yes | Yes | Yes | Yes |
| TB contact tracing and monitoring | Yes | Yes | Yes | Yes | Yes |
| DOTs to promote adherence to treatment and prevent further spread | Yes | Yes | Yes | Yes | Yes |
| Provision of prophylaxis treatment e.g., TPT for children and adults living with HIV including eligible clients | No | Refills | Yes | Yes | Yes |
| TB patients’ isolation | No | Yes | Yes | Yes | Yes |
| Promote IPC and use of PPEs | Yes | Yes | Yes | Yes | Yes |
| BCG vaccination | No (Promote) | Yes | Yes | Yes | Yes |
| Recording of TB patients and TB suspects in the TB monitoring tools | Yes | Yes | Yes | Yes | Yes |
| TB Notification | N o | Yes | Yes | Yes | Yes |
| **Curative Interventions** |  |  |  |  |  |
| History taking | No | Yes | Yes | Yes | Yes |
| Physical and clinical examination | No | Yes | Yes | Yes | Yes |
| Early diagnosis and treatment | No | Yes | Yes | Yes | Yes |
| Treatment with anti-TB drugs | No | Refills | Yes | Yes | Yes |
| Initiation of cotrimoxazole preventive therapy for TB/HIV co-infected patients | No | No | Yes | Yes | Yes |
| Treatment of TB/HIV co-infections (Initiation of ART) | No | No | Yes | Yes | Yes |
| Regular Sputum monitoring and follow up | Yes | Yes | Yes | Yes | Yes |
| DOTs to promote adherence to treatment | Yes | Yes | Yes | Yes | Yes |
| Adherence counselling and follow up | Yes | Yes | Yes | Yes | Yes |
| Identification and education of treatment supporters | No | Yes | Yes | Yes | Yes |
| Supervise and monitor DOTs promoters | No | Yes | Yes | Yes | Yes |
| Link to a treatment supporter | No | Yes | Yes | Yes | Yes |
| TB Drug’s refill | No | Yes | Yes | Yes | Yes |
| Nutrition support | Yes | Yes | Yes | Yes | Yes |
| Monitoring for any complications | Yes | Yes | Yes | Yes | Yes |
| Management of any TB complications | No | No | Yes | Yes | Yes |
| Management of Drug resistant TB | No | No | Yes | Yes | Yes |
| Inpatient services /admissions | No | No | Yes | Yes | Yes |
| Surgical interventions for TB complications | No | No | Yes | Yes | Yes |
| 1st and 2nd line drug susceptibility testing | No | No | No | No | Yes |
| Follow up | Yes | Yes | Yes | Yes | Yes |
| Referrals and linkages | Yes | Yes | Yes | Yes | Yes |
| **TB Diagnostics** |  |  |  |  |  |
| TB household contact investigation | Yes | Yes | Yes | Yes | Yes |
| Sputum collection | No | Yes | Yes | Yes | Yes |
| Radiological examination: Chest x-ray | No | No | Yes | Yes | Yes |
| Sputum smears | No | No | Yes | Yes | Yes |
| Gene expert | No | No | Yes | Yes | Yes |
| Tuberculosis skin test | No | No | Yes | Yes | Yes |
| **Rehabilitation interventions** |  |  |  |  |  |
| Home based care | Yes | Yes | Yes | Yes | Yes |
| Promote physical exercises /physiotherapy | Yes | Yes | Yes | Yes | Yes |
| Occupational therapy | Yes | Yes | Yes | Yes | Yes |
| Pulmonary TB rehabilitation services | No | No | Yes | Yes | Yes |
| Nutritional support/Nutritional rehabilitation | Yes | Yes | Yes | Yes | Yes |
| **Palliative interventions** |  |  |  |  |  |
| Psychosocial support for patients and the families/care givers | Yes | Yes | Yes | Yes | Yes |
| Spiritual support | Yes | Yes | Yes | Yes | Yes |
| Linkage to treatment supporters | Yes | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |

### Anthrax

Anthrax is a serious infectious disease caused by gram-positive, rod-shaped bacteria known as Bacillus anthracis.

Table 26:prevention and management of anthrax

| **Interventions by public health function** | **Interventions offered by level of service delivery** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Community** | **Health centre** | **District Hospital** | **Regional Hospital** | **Tertiary Hospital** |
| **Health Promotion Interventions** |  |  |  |  |  |
| Awareness creation among Community, families, and individuals on anthrax | Yes | Yes | Yes | Yes | Yes |
| Community awareness on proper hygiene, proper handling and disposal of dead animals ( eg not to open carcass ) | Yes | Yes | Yes | Yes | Yes |
| Health Education on Infection Prevention and Control | Yes | Yes | Yes | Yes | Yes |
| Advocate for multisectoral approach in the prevention of anthrax | Yes | YES | Yes | Yes | Yes |
| Distribution of IEC materials | Yes | Yes | Yes | Yes | Yes |
| Health education on prevention measures of anthrax | No | No | Yes | Yes | Yes |
| Promote Multisectoral approach on animal health /anthrax control (e.g. Veterinary department | Yes | Yes | Yes | Yes | Yes |
| CHWs and health workers training on anthrax (strengthen their knowledge on anthrax) | Yes | Yes | Yes | Yes | Yes |
| **Disease prevention interventions** |  |  |  |  |  |
| Guidance on proper disposal of dead animal and carcass | Yes | Yes | Yes | Yes | Yes |
| Guidance on Proper handling of animal parts, such as hides, or products made from those animal parts, | Yes | Yes | Yes | Yes | Yes |
| Guidance on avoidance of contact with suspected or infected animals/ or using their products eg meat | Yes | Yes | Yes | Yes | Yes |
| Guidance on proper measures to avoid the contamination of water and soil and to prevent the spread of the infection to other farms and environments. | Yes | Yes | Yes | Yes | Yes |
| Promote Routine vaccination of animals against anthrax (n liaison with relevant department) | Yes | Yes | Yes | Yes | Yes |
| Observe infection prevention and control (IPC) measures | Yes | Yes | Yes | Yes | Yes |
| Accurate collection and handling of specimens | No | Yes | Yes | Yes | Yes |
| Early detection of sources /Carry out an epidemiological investigation to detect the source of infection (history of site, feed, disturbance of the environment, etc.) in liaison with other departments e.g. veterinary | Yes | Yes | Yes | Yes | Yes |
| Effective diagnosis and treatment of infection | No | No | Yes | Yes | Yes |
| Use of effective PPEs | Yes | Yes | Yes | Yes | Yes |
| Preventive antibiotics therapy for exposed persons | No (Refer) | Yes &refer | Yes | Yes | Yes |
| Notification (Notifiable disease | Yes | Yes | Yes | Yes | Yes |
| **Curative interventions** |  |  |  |  |  |
| Physical and clinical examination | No | Yes | Yes | Yes | Yes |
| Recognition of features indicative of anthrax (community level)  Clinical diagnostics of cutaneous anthrax – (raised sores on skin) | Yes | Yes | Yes | Yes | Yes |
| Supportive therapy eg. Fluid’s therapy; nutrition | No | Yes | Yes | Yes | Yes |
| Antibiotic therapy | No | Yes &refer | Yes | Yes | Yes |
| Admissions/inpatient care | No | No | Yes | Yes | Yes |
| Fluid therapy / Administration of intravenous fluids | No | Yes &refer | Yes | Yes | Yes |
| Referral to next level for management | Immediate | Yes | Yes | Yes | Yes |
| Management of complications | No | No | Yes | Yes | Yes |
| Conduct outbreak response | No | Yes | Yes | Yes | Yes |
| High care | No | No | No | Yes | Yes |
| ICU services | No | No | Nol | No | Yes |
| Follow up | Yes | Yes | Yes | Yes | Yes |
| Notification (notifiable disease) | Yes | Yes | Yes | Yes | Yes |
| **Diagnostics** | Yes | Yes | Yes | Yes | Yes |
| Culture and Gram stain (Gram stain bacilli) | No | No | Yes | Yes | Yes |
| Real-time polymerase chain reaction (RT-PCR) | No | No | Yes | Yes | Yes |
| Serology | No | No | Yes | Yes | Yes |
| Anthrax lethal factor (LF) toxin mass spectrometry | No | No | No | No | Yes |
| *Radiological examination for inhalation anthrax* |  |  |  |  |  |
| * Chest Xray | No | No | Yes | Yes | Yes |
| * CT scan | No | No | No | Yes | Yes |
| **Rehabilitation interventions** |  |  |  |  |  |
| Home based care | Yes | Yes | Yes | Yes | Yes |
| **Palliative interventions** |  |  |  |  |  |
| Patient and family support | Yes | Yes | Yes | Yes | Yes |
| Psychological and Psychosocial support | Yes | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |

## Non communicable diseases services

This section covers the noncommunicable diseases; mainly chronic non-infectious health conditions that cannot be spread from person to person. The section covers cardiovascular diseases; diabetes; cancers; chronic respiratory diseases including asthma; mental health conditions and injuries.

### Hypertension

Hypertension, also known as high or raised blood pressure, is a condition in which the**blood vessels have persistently raised pressure,** putting them under increased stress.

Table 27: prevention and management of hypertension

| **Hypertension & Cardiovascular Disease** | **Service components offered by level of service delivery** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Community** | **Health centre** | **District hospital** | **Regional Hospital** | **Tertiary hospitals (National referral/specialised H** |
| **Health Promotion interventions** |  |  |  |  |  |
| Health education to communities and individuals on HPT | Yes | Yes | Yes | Yes | Yes |
| Community sensitization on predisposing factors risk factors and prevention measures | Yes | Yes | Yes | Yes | Yes |
| Promotion of healthy lifestyle | Yes | Yes | Yes | Yes | Yes |
| * Good nutrition /Healthy diet | Yes | Yes | Yes | Yes | Yes |
| * Physical exercises | Yes | Yes | Yes | Yes | Yes |
| * Avoidance of alcohol and Tobacco use | Yes | Yes | Yes | Yes | Yes |
| Distribution of IEC materials | Yes | Yes | Yes | Yes | Yes |
| Training community health workers //health workers on HPT | Yes | Yes | Yes | Yes | Yes |
| **Disease prevention interventions** |  |  |  |  |  |
| Guidance on lifestyle modification (exercices, Diet, avoidance of alcohol, Tobacco | Yes | Yes | Yes | Yes | Yes |
| Avoidance of harmful traditional practices | Yes | Yes | Yes | Yes | Yes |
| Routine Screening | Yes | Yes | Yes | Yes | Yes |
| * Blood pressure screening | Yes | Yes | Yes | Yes | Yes |
| * Blood sugar | Yes | Yes | Yes | Yes | Yes |
| * Blood Lipids | No | No | No | Yes | Yes |
| * BMI | Yes | Yes | Yes | Yes | Yes |
| Early diagnosis and management of patients with hypertension | No | No | Yes | Yes | Yes |
| Early diagnosis and management of other conditions eg diabetes | No | No | Yes | Yes | Yes |
| **Curative Interventions** |  |  |  |  |  |
| Recognition of signs that may be indicative of Hypertension | Yes | Yes | Yes | Yes | Yes |
| Medical history and clinical examination | No | Yes | Yes | Yes | Yes |
| Supportive management /non pharmacological interventions |  |  |  |  |  |
| * Fluid therapy | No | No | Yes | Yes | Yes |
| * Diet management | Yes | Yes | Yes | Yes | Yes |
| * Exercises | Yes | Yes | Yes | Yes | Yes |
| Medication for blood pressure | No | No | Yes | Yes | Yes |
| Encourage adherence to medication | Yes | Yes | Yes | Yes | Yes |
| Referrals for patients with hypertension | Yes (Urgent) | Yes (stabilize and refer) | Yes | Yes | Yes |
| Admissions for patients with hypertension (inpatient care) | No | No | Yes | Yes | Yes |
| Mechanical interventions e.g. Pace-maker, Cardiac catheterization and stent insertion | No | No | No | No | Yes |
| Surgical interventions | No | No | No | No | Yes |
| High care for patients with hypertension | No | No | No | Yes | Yes |
| ICU care for patients with hypertension | No | No | No | No | Yes |
| Patients follow up | No | No | Yes | Yes | Yes |
| Medication refill | No | No | Yes | Yes | Yes |
| **Diagnostic interventions** |  |  |  |  |  |
| Lipid profile | No | No | Yes | Yes | Yes |
| Ultra -sound | No | No | Yes | Yes | Yes |
| X -ray | No | No | Yes | Yes | Yes |
| Angiography | No | No | No | No | Yes |
| Electrocardiogram ECG | No | No | No | No | Yes |
| Echocardiogram | No | No | No | No | Yes |
| MRI | No | No | No | No | Yes |
| **Rehabilitation interventions** |  |  |  |  |  |
| Home based care | Yes | Yes | Yes | Yes | Yes |
| Physiotherapy including home based physical rehabilitation | Yes | Yes | Yes | Yes | Yes |
| Provision of relevant aids e.g chairs with bed pans (toilet seats) especially for elderly patients | Yes | Yes | Yes | Yes | Yes |
| physical activity rehabilitation | Yes | Yes | Yes | Yes | Yes |
| **Palliative interventions** |  |  |  |  |  |
| Psychosocial support to patients, care givers, families | Yes | Yes | Yes | Yes | Yes |
| Counselling | Yes | Yes | Yes | Yes | Yes |
| Spiritual support | Yes | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |

### Stroke

Stroke is: “rapidly developing clinical signs of focal (or global) disturbance of cerebral function, with symptoms lasting 24 hours or longer or leading to death, with no apparent cause other than of 1 Non-communicable Diseases and Mental Health Cluster, WHO Geneva (CCS/NMH) 2 Epidemiology and Burden of Disease, WHO Geneva (EBD/GPE) vascular origin”

Table 28:prevention and management of stroke

| **Interventions by public health function** | **Interventions offered by level of service delivery** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Community** | **Health centre** | **District Hospital** | **Regional Hospital** | **Tertiary Hospital** |
| **Health Promotion Interventions** |  |  |  |  |  |
| Create Awareness to individuals and communities on stroke | Yes | Yes | Yes | Yes | Yes |
| Education to individuals and communities on predisposing factors | Yes | Yes | Yes | Yes | Yes |
| Targeted patient education on stroke | Yes | Yes | Yes | Yes | Yes |
| IEC materials development and distribution | Yes | Yes | Yes | Yes | Yes |
| Promotion of Healthy lifestyles | Yes | Yes | Yes | Yes | Yes |
| Trainings of community health workers /Health workers on stroke (strengthen their knowledge on stroke) | Yes | Yes | Yes | Yes | Yes |
| **Disease prevention interventions** |  |  |  |  |  |
| Encourage/Guidance on adoption of healthy lifestyle | Yes | Yes | Yes | Yes | Yes |
| * Avoidance of alcohol | Yes | Yes | Yes | Yes | Yes |
| * Avoidance of tobacco | Yes | Yes | Yes | Yes | Yes |
| * Regular exercise | Yes | Yes | Yes | Yes | Yes |
| * Healthy diet | Yes | Yes | Yes | Yes | Yes |
| Encourage early health seeking behaviour and regular check ups | Yes | Yes | Yes | Yes | Yes |
| Education to communities on avoidance of harmful traditional practices | Yes | Yes | Yes | Yes | Yes |
| **Routine screening** |  |  |  |  |  |
| Blood pressure screening | Yes | Yes | Yes | Yes | Yes |
| Blood sugar screening | Yes | Yes | Yes | Yes | Yes |
| Early management of conditions such as High blood pressure | No | Yes | Yes | Yes | Yes |
| **Curative interventions** |  |  |  |  |  |
| Medical History; physical and clinical examination | No | Yes | Yes | Yes | Yes |
| Recognition of signs /symptoms indicative of stroke | Yes | Yes | Yes | Yes | Yes |
| Identification of the type of stroke (ischaemic; haemorrhagic, embolic) | No | No | No | Yes | Yes |
| Stabilize the patient | Immediate referral | Yes | Yes | Yes | Yes |
| * First aid -to ensure patient is breathing e.g., in ischemic stroke | No | Yes | Yes | Yes | Yes |
| * IV fluids | No | Yes | Yes | Yes | Yes |
| * Control Bleeding (in haemorrhagic stroke) | No | Yes | Yes | Yes | Yes |
| Immediate/emergency referral of patient suspected to have stroke | Yes | Yes | Yes | Yes | Manage |
| Immediate admission for patient with stroke | No | No | No | Yes | Yes |
| Emergency services /emergency administration of medication-tissue plasminogen activator (Tpa) | No | No | No | Yes | Yes |
| Management focused on restoring breathing | No | Yes | Yes | Yes | Yes |
| Management to restore heart rate | No | No | Yes | Yes | Yes |
| Management of the blood pressure | No | No | Yes | Yes | Yes |
| Surgical interventions e.g. to remove clots-: mechanical thrombectomy (ischemic stroke); to repair raptured vessels (haemorrhagic stroke | No | No | No | No | Yes |
| Long-term treatments with aspirin or an anticoagulant to prevent further clots. | No | No | No | Yes | Yes |
| Prevention and management of complications | No | No | Yes | Yes | Yes |
| High care/High dependency unit services | No | No | No | Yes | Yes |
| ICU service | No | No | No | No | Yes |
| Patients follow up | Yes | Yes | Yes | Yes | Yes |
| Medication refill | No | No | No | Yes | Yes |
| **Diagnostic tests** |  |  |  |  |  |
| Blood sugar tests (slurred speech and confusion may be due to low blood sugar | No | Yes | Yes | Yes | Yes |
| Cranial CT scan | No | No | No | Yes | Yes |
| MRI | No | No | No | Yes | Yes |
| Electrocardiogram (ECG or EKG) to test for abnormal heart rhythms | No | No | No | Yes | Yes |
| Echocardiography to check heart for clots or abnormalities | No | No | No | Yes | Yes |
| Angiography to check for blocked arteries | No | No | No | Yes | Yes |
| Blood tests for cholesterol and clotting problems | No | No | Yes | Yes | Yes |
| **Rehabilitation interventions** |  |  |  |  |  |
| Home based care | Yes | Yes | Yes | Yes | Yes |
| Community based rehabilitation programs for persons with stroke | Yes | Yes | Yes | Yes | Yes |
| Environmental modification for independent activities of daily living @ home | Yes | No | No | No | No |
| Physical rehabilitation/physical exercises to restore the motor functions | Yes | Yes | Yes | Yes | Yes |
| Facilitate provision of movement aides and other aids (wheelchair, crutches, toilet seat | Yes | Yes | Yes | Yes | Yes |
| Occupational, therapy to help the patient participate in gainful occupation | No | No | Yes | Yes | Yes |
| Speech therapy to help regain lost speech | No | No | Yes | Yes | Yes |
| **Palliative interventions** |  |  |  |  |  |
| Psychosocial support | Yes | Yes | Yes | Yes | Yes |
| Counselling and reassurance | Yes | Yes | Yes | Yes | Yes |
| Spiritual support | Yes | Yes | Yes | Yes | Yes |
| Support groups | Yes | Yes | Yes | Yes | Yes |
| Conduct group therapy sessions for patients with STROKE, such as positive lifestyle behaviours | Yes | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |

### Heart Failure

Heart failure is a condition in which the heart can't pump enough blood to meet the body's needs

Table 29:Prevention and management of heart failure

| **Interventions by public health function** | **Interventions offered by level of service delivery** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Community** | **Health centre** | **District Hospital** | **Regional Hospital** | **Tertiary Hospital** |
| **Health Promotion Interventions** |  |  |  |  |  |
| Create awareness among communities/families/individuals on heart failure | Yes | Yes | Yes | Yes | Yes |
| Health education on risk factors |  |  |  |  |  |
| Promote healthy lifestyle including -physical activity; proper diet; avoidance of harmful use of alcohol, tobacco and its products). | Yes | Yes | Yes | Yes | Yes |
| Distribute IEC material, such as brochures, leaflet, booklets | Yes | Yes | Yes | Yes | Yes |
| Advocate for multisectoral approach to combat risk factors that predispose to heart failure | Yes | Yes | Yes | Yes | Yes |
| Strengthen the CHWs and healthcare workers knowledge on heart failure through capacity building | Yes | Yes | Yes | Yes | Yes |
| **Disease prevention interventions** |  |  |  |  |  |
| Encourage/Guidance on adoption of healthy lifestyle | Yes | Yes | Yes | Yes | Yes |
| * Avoidance of alcohol | Yes | Yes | Yes | Yes | Yes |
| * Avoidance of tobacco | Yes | Yes | Yes | Yes | Yes |
| * Regular exercise /physical activity | Yes | Yes | Yes | Yes | Yes |
| * Healthy diet | Yes | Yes | Yes | Yes | Yes |
| Encourage early health seeking behaviour and regular check ups | Yes | Yes | Yes | Yes | Yes |
| Education to communities on avoidance of harmful traditional practices | Yes | Yes | Yes | Yes | Yes |
| **Routine screening** |  |  |  |  |  |
| * Blood pressure screening | Yes | Yes | Yes | Yes | Yes |
| * Blood sugar screening | Yes | Yes | Yes | Yes | Yes |
| Physical Assessment: height, weight, waist circumference | Yes | Yes | Yes | Yes | Yes |
| Lifestyle Assessment; dietary behaviour, physical activity. | Yes | Yes | Yes | Yes | Yes |
| Early diagnosis and management of patients with hypertension | No (refer | Yes | Yes | Yes |  |
| Early diagnosis and management of other conditions eg diabetes | No (refer | Yes | Yes | Yes | Yes |
| Mitigate negative health impacts of environmental pollutants | No | Yes | Yes | Yes | Yes |
| High risks groups to be involved in clubs and taught about aggravating factors, risk factors, harmful traditional medications, and practices | No | No | Yes | Yes | Yes |
| Nutritional Support: small vegetable gardens, nutritional supplements | No | No | No | Yes | Yes |
| **Curative interventions** |  |  |  |  |  |
| Physical and Clinical assessment | No | Yes | Yes | Yes | Yes |
| Urgent/immediate referral to next level as indicated | Yes (immediate | Yes | Yes | Yes | Yes |
| Non -pharmacological management – guidance on | No | Yes | Yes | Yes | Yes |
| * Lifestyle change |  |  |  |  |  |
| * Moderate physical activity |  |  |  |  |  |
| * Maintaining health weight |  |  |  |  |  |
| * Sodium intake reduction |  |  |  |  |  |
| Admissions /inpatient care | No | No | Yes | Yes | Yes |
| Medication as per national guidelines eg. ACE inhibitors/B blockers | No | No | Yes | Yes | Yes |
| Use of diuretics to relieve congestion | No | No | Yes | Yes | Yes |
| Use of devices e.g., Pacemakers | No | No | No | Yes | Yes |
| Surgical interventions | No | No | No | Yes | Yes |
| Provide high dependency care | No | No | No | Yes | Yes |
| ICU services | No | No | No | Yes | Yes |
| Follow up including for treatment compliance | Yes | Yes | Yes | Yes | Yes |
| **Diagnostics/investigations** |  |  |  |  |  |
| [**Blood test**:](https://www.bing.com/search?q=Blood+test&filters=sid:%2218c0e132-80de-f298-f083-a89f1da189bd%22+lite:%22.RGlhZ25vc2lzQ2Fyb3VzZWxQb2xlXkhlYXJ0LWZhaWx1cmVfZ2xvYmFsX2VuRGlhZ25vc2lzXlBPTEVeXl4xOGMwZTEzMi04MGRlLWYyOTgtZjA4My1hODlmMWRhMTg5YmQ=%22) Kidney and thyroid functions: Cholesterol levels Blood cell count | No | No | Yes | Yes | Yes |
| [**X-ray**:](https://www.bing.com/search?q=X-ray&filters=sid:%2258002b48-93fa-1e6a-2c3a-05fb0a910a15%22+lite:%22.RGlhZ25vc2lzQ2Fyb3VzZWxQb2xlXkhlYXJ0LWZhaWx1cmVfZ2xvYmFsX2VuRGlhZ25vc2lzXlBPTEVeXl41ODAwMmI0OC05M2ZhLTFlNmEtMmMzYS0wNWZiMGE5MTBhMTU=%22) Chest X-ray detects enlarged heart and fluid filled lungs. | No | No | Yes | Yes | Yes |
| [**Magnetic resonance imaging** (MRI):](https://www.bing.com/search?q=Magnetic+resonance+imaging+(MRI)&filters=sid:%223fd3188b-e240-d54f-3ac0-2ee90a3b60eb%22+lite:%22.RGlhZ25vc2lzQ2Fyb3VzZWxQb2xlXkhlYXJ0LWZhaWx1cmVfZ2xvYmFsX2VuRGlhZ25vc2lzXlBPTEVeXl4zZmQzMTg4Yi1lMjQwLWQ1NGYtM2FjMC0yZWU5MGEzYjYwZWI=%22) MRI of chest to detect any damages to the heart muscles, blockages in the heart. | No | No | No | No | Yes |
| [**Echocardiogram:**](https://www.bing.com/search?q=Echocardiogram&filters=sid:%22ba93a69c-daaf-a646-2dcb-e9e6cdf27f3b%22+lite:%22.RGlhZ25vc2lzQ2Fyb3VzZWxQb2xlXkhlYXJ0LWZhaWx1cmVfZ2xvYmFsX2VuRGlhZ25vc2lzXlBPTEVeXl5iYTkzYTY5Yy1kYWFmLWE2NDYtMmRjYi1lOWU2Y2RmMjdmM2I=%22) to evaluate heart muscles and valves. | No | No | No | No | Yes |
| [**Electrocardiogram** (ECG or EKG):](https://www.bing.com/search?q=Electrocardiogram+(ECG+or+EKG)&filters=sid:%2299d7e0cb-9d2a-9547-375c-0b846a30b0b0%22+lite:%22.RGlhZ25vc2lzQ2Fyb3VzZWxQb2xlXkhlYXJ0LWZhaWx1cmVfZ2xvYmFsX2VuRGlhZ25vc2lzXlBPTEVeXl45OWQ3ZTBjYi05ZDJhLTk1NDctMzc1Yy0wYjg0NmEzMGIwYjA=%22) To assess how well the heart pumps blood. | No | No | No | No | Yes |
| [**Ejection fraction** (EF):](https://www.bing.com/search?q=Ejection+fraction+(EF)&filters=sid:%223834fdde-86c0-44e1-3eda-0bdc39727f9c%22+lite:%22.RGlhZ25vc2lzQ2Fyb3VzZWxQb2xlXkhlYXJ0LWZhaWx1cmVfZ2xvYmFsX2VuRGlhZ25vc2lzXlBPTEVeXl4zODM0ZmRkZS04NmMwLTQ0ZTEtM2VkYS0wYmRjMzk3MjdmOWM=%22) To measure the amount of blood released during contraction of the heart. | No | No | Yes | Yes | Yes |
| [Stress test:](https://www.bing.com/search?q=Stress+test&filters=sid:%223b76f04a-157b-5cd7-0c76-a00905faa9b3%22+lite:%22.RGlhZ25vc2lzQ2Fyb3VzZWxQb2xlXkhlYXJ0LWZhaWx1cmVfZ2xvYmFsX2VuRGlhZ25vc2lzXlBPTEVeXl4zYjc2ZjA0YS0xNTdiLTVjZDctMGM3Ni1hMDA5MDVmYWE5YjM=%22) Measures the health of the heart and amount of stress it can sustain. | No | No | Yes | Yes | Yes |
| [**Cardiac catheterization**:](https://www.bing.com/search?q=Cardiac+catheterization&filters=sid:%22a4d8126a-892c-fc45-d508-513c78fd3fa0%22+lite:%22.RGlhZ25vc2lzQ2Fyb3VzZWxQb2xlXkhlYXJ0LWZhaWx1cmVfZ2xvYmFsX2VuRGlhZ25vc2lzXlBPTEVeXl5hNGQ4MTI2YS04OTJjLWZjNDUtZDUwOC01MTNjNzhmZDNmYTA=%22) To check for coronary artery disease. | No | No | No | No | Yes |
| **Rehabilitation interventions** |  |  |  |  |  |
| Community based rehabilitation (CBR) | Yes | Yes | Yes | Yes | Yes |
| Environmental modification for independence in activities of daily living | Yes | Yes | Yes | Yes | Yes |
| Occupational, Psychotherapies, Physiotherapy, (eg thro CBR | Yes | Yes | Yes | Yes | Yes |
| Link to community support structures. | Yes | Yes | Yes | Yes | Yes |
| **Palliative interventions** |  |  |  |  |  |
| psychosocial, & spiritual support | Yes | Yes | Yes | Yes | Yes |
| Counselling of patients and family members about the disease | Yes | Yes | Yes | Yes | Yes |
| Home based care | Yes | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |

### Diabetes Mellitus

Diabetes is a chronic disease that occurs either**when the pancreas does not produce enough insulin or when the body cannot effectively use the insulin it produces.**

Table 30:prevention and management of diabetes mellitus

| **Interventions for Diabetes Mellitus by public health function** | **Service components offered by level of service delivery** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Community** | **Health centre** | **District Hospital** | **Regional Hospital** | **Tertiary /National and specialised hospitals** |
| **Health Promotion Interventions** |  |  |  |  |  |
| Awareness creation to individuals and communities on diabetes | Yes | Yes | Yes | Yes | Yes |
| Education to individuals and communities on risk factors for diabetes e.g. tobacco use; harmful use of alcohol | Yes | Yes | Yes | Yes | Yes |
| Community and individual awareness on healthy lifestyles   * Healthy diets * Exercises | Yes | Yes | Yes | Yes | Yes |
| Community and individual awareness on early identification and health seeking behaviour | Yes | Yes | Yes | Yes | Yes |
| Education on reduction /avoidance of stigma and discrimination | Yes | Yes | Yes | Yes | Yes |
| Distribution of IEC materials | Yes | Yes | Yes | Yes | Yes |
| CHWS/ Health workers training on diabetes (Strengthen knowledge on diabetes | Yes | Yes | Yes | Yes | Yes |
| **Disease Prevention Interventions** |  |  |  |  |  |
| Routine screening for diabetes | Yes | Yes | Yes | Yes | Yes |
| Guidance to individuals /families /communities on healthy lifestyles | Yes | Yes | Yes | Yes | Yes |
| Routine screening |  |  |  |  |  |
| * Blood sugar | Yes | Yes | Yes | Yes | Yes |
| * Blood pressure | Yes | Yes | Yes | Yes | Yes |
| * Blood lipids | No | No | Yes | Yes | Yes |
| Guidance on healthy lifestyles -exercises; healthy diet: avoidance of smoking & harmful alcohol use | Yes | Yes | Yes | Yes | Yes |
| Mobilize the community to undertake physical activity /exercises for weight control | Yes | Yes | Yes | Yes | Yes |
| Guidance on avoidance of harmful traditional practices | Yes | Yes | Yes | Yes | Yes |
| **Curative Interventions** |  |  |  |  |  |
| Recognition of symptoms indicative of diabetes including thirst; • frequent urination; • blurring of vision and fatigue | Yes | Yes | Yes | Yes | Yes |
| History taking | No | Yes | Yes | Yes | Yes |
| Physical and clinical examination | No | Yes | Yes | Yes | Yes |
| Monitor and control blood sugar (fasting or random plasma glucose | Yes | Yes | Yes | Yes | Yes |
| Monitor HBA1c | No | No | Yes | Yes | Yes |
| Monitoring blood pressure | Yes | Yes | Yes | Yes | Yes |
| Monitor kidney function, lipid/cholesterol levels and early signs of neuropathy | No | No | Yes | Yes | Yes |
| **Non-pharmacologic interventions** |  |  |  |  |  |
| * Advise on healthy balanced diet | Yes | Yes | Yes | Yes | Yes |
| * Advise on regular daily physical activity | Yes | Yes | Yes | Yes | Yes |
| * Advise on weight management | Yes | Yes | Yes | Yes | Yes |
| * Advise on tobacco cessation | Yes | Yes | Yes | Yes | Yes |
| Medication Oral hypoglycaemics | No | No | Yes | Yes | Yes |
| Management with insulin | No | No | Yes | Yes | Yes |
| Encourage adherence to medication /adherence support | Yes | Yes | Yes | Yes | Yes |
| Patient Education on use & storage of insulin & use of syringes |  |  |  |  |  |
| Recognition of features indicative of acute diabetic complications -headache; hunger; irritability, anxiety; sweating; trembling; difficulty in speaking; confusion; coma | Yes | Yes | Yes | Yes | Yes |
| Admissions /inpatient care | No | No | Yes | Yes | Yes |
| Stabilising for acute diabetic emergencies -hypoglycaemia and hyperglycaemia | Yes (first aid &urgent referral | Yes | Yes | Yes | Yes |
| Management of diabetic emergencies | No | No | Yes | Yes | Yes |
| Recognition of any complications of diabetes | Yes | Yes | Yes | Yes | Yes |
| Management of diabetic complications eg infections | No | No | Yes | Yes | Yes |
| Management of any underlying conditions | No | No | Yes | Yes | Yes |
| Foot care and educate on selfcare | Yes | Yes | Yes | Yes | Yes |
| Referral for further management (includes urgent referral for patients with acute diabetic emergencies) | Yes | Yes | Yes | Yes | Yes |
| Dialysis | No | No | No | No | Yes |
| Organ replacements e.g. kidney transplant | No | No | No | No | Yes |
| High care/High dependency unit | No | No | No | Yes | Yes |
| ICU care | No | No | No | No | Yes |
| Medication refill | No | Yes | Yes | Yes | Yes |
| Follow up of patients | Yes (home based | Yes | Yes | Yes | Yes |
| **Diagnostics** |  |  |  |  |  |
| Blood sugar (fasting /random blood sugar | Yes | Yes | Yes | Yes | Yes |
| Blood chemistry U&E, Creatinine | No | No | Yes | Yes | Yes |
| Glycolated Haemoglobin Hb1Ac | No | No | Yes | Yes | Yes |
| Renal function test | No | No | Yes | Yes | Yes |
| Blood lipid levels | No | No | Yes | Yes | Yes |
| Oral Glucose Tolerance test | No | No | Yes | Yes | Yes |
| **Rehabilitation interventions** |  |  |  |  |  |
| Home based care /CBR | Yes | Yes | Yes | Yes | Yes |
| Physiotherapy services /&physical exercises through CBR | Yes | Yes | Yes | Yes | Yes |
| Occupational therapy Including through CBR | Yes | Yes | Yes | Yes | Yes |
| Speech therapy including through CBR | Yes | Yes | Yes | Yes | Yes |
| **Palliative care interventions** |  |  |  |  |  |
| Psychosocial support for patients, care givers and families  (*Incorporate total quality of life in diabetics including behavioural, mood, attitude, and emotional support & also to improve adherence to treatment)* | Yes | Yes | Yes | Yes | Yes |
| Counselling including on drugs adherence | Yes | Yes | Yes | Yes | Yes |
| Support groups | Yes | Yes | Yes | Yes | Yes |
| Spiritual support | Yes | Yes | Yes | Yes | Yes |
| Nutritional support | Yes | Yes | Yes | Yes | Yes |
| Psychosocial support to | Yes | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |

### Asthma

Asthma is a long-term condition affecting children and adults. The air passages in the lungs become narrow due to inflammation and tightening of the muscles around the small airways. This causes asthma symptoms: cough, wheeze, shortness of breath and chest tightness. These symptoms are intermittent and are often worse at night or during exercise

Table 31:management and prevention of asthma

| **Interventions by public health function** | **Interventions offered by level of service delivery** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Community** | **Health centre** | **District Hospital** | **Regional Hospital** | **Tertiary Hospital** |
| **Health Promotion Interventions** |  |  |  |  |  |
| Create awareness to communities on Asthma including prevention measures | Yes | Yes | Yes | Yes | Yes |
| Create awareness to individuals and communities on risk factors | Yes | Yes | Yes | Yes | Yes |
| Community sensitization to avoid stigma and discrimination | Yes | Yes | Yes | Yes | Yes |
| Education on the importance of early health seeking behaviour | Yes | Yes | Yes | Yes | Yes |
| Education on use of eco-friendly fuel | Yes | Yes | Yes | Yes | Yes |
| Community sensitization on safe home to prevent indoor air pollution and safe school enrolment | Yes | Yes | Yes | Yes | Yes |
| Multi sectoral approach to ensure clean environments | Yes | Yes | Yes | Yes | Yes |
| Distribute IEC materials | Yes | Yes | Yes | Yes | Yes |
| Strengthen CHWs and health workers knowledge on Asthma (through trainings | Yes | Yes | Yes | Yes | Yes |
| Train other community structures and school clubs’ focal persons on asthma including its features as well as prevention measures | Yes | Yes | Yes | Yes | Yes |
| **Disease prevention interventions** |  |  |  |  |  |
| Ensure safe school and home environment | Yes | Yes | Yes | Yes | Yes |
| Guidance /information on Avoidance of asthma triggers including.   * Indoor allergens e.g., house dust mites in bedding, carpets and stuffed furniture, pollution, and pet dander) * outdoor allergens (such as pollens and moulds) * tobacco smoking /cessation of smoking * exposure to secondhand smoke * other triggers such as cold air, extreme emotional arousal e.g. anger or fear, and physical exercise. * exhaust fumes or other types of pollution * occupational triggers, such as chemicals used in farming, hairdressing, | Yes | Yes | Yes | Yes | Yes |
| Promotion of school health activities | Yes | Yes | Yes | Yes | Yes |
| Guidance/advice on weight control, e.g., through health diet for school-age children | No | Yes | Yes | Yes | Yes |
| Guidance to parents or patient to develop an elaborate plan for living with asthma and preventing asthma attacks | No | Yes | Yes | Yes | Yes |
| Guidance to parents or patients on use of the medication as per prescription to prevent attacks | No | Yes | Yes | Yes | Yes |
| Infection prevention and control | No | Yes | Yes | Yes | Yes |
| Management of frequent childhood lower respiratory tract infections | No | Yes | Yes | Yes | Yes |
| Promote Healthy lifestyle - Weight control through proper diet and exercise | Yes | Yes | Yes | Yes | Yes |
| Surveillance to map the magnitude of asthma, and monitoring trends, | Yes | Yes | Yes | Yes | Yes |
| **Curative interventions** |  |  |  |  |  |
| Recognition of symptoms including shortness of breath, chest tightness/pain, whizzing and breathing out, trouble sleeping caused by shortness of breath | Yes | Yes | Yes | Yes | Yes |
| History and physical examination | No | Yes | Yes | Yes | Yes |
| Identification and early treatment of attacks | No | Yes | Yes | Yes | Yes |
| Advice and guidance to the patient on recognition of asthma triggers, and how to avoid them | Yes | Yes | Yes | Yes | Yes |
| Use of Medications -bronchodilator | No | Yes | Yes | Yes | Yes |
| Quick-relief (rescue) medications for rapid, short-term symptom relief during an asthma attack/inhalers as prescribed | Yes (as already prescribed) | Yes | Yes | Yes | Yes |
| Prescription of Allergy medications | No | Yes | Yes | Yes | Yes |
| Guidance to patient on how to monitor their breathing and how to recognize an impending attack, such as, light coughing, whizzing or shortness of breath | Yes | Yes | Yes | Yes | Yes |
| Recognition of signs that Asthma is probably worsening – more frequent attacks, rapid worsening of difficulty in breathing | Yes | Yes | Yes | Yes | Yes |
| Seek emergency treatment – referral to health facility | Yes | Yes | Yes | Yes | Yes |
| Advice and guidance to the patient on recognition of Asthma triggers and how to avoid them | No | Yes | Yes | Yes | Yes |
| Treatment of aggravating factors such as lower and upper respiratory tract infections | No | Yes | Yes | Yes | Yes |
| Monitoring and management of any complications of Asthma | No | Yes | Yes | Yes | Yes |
| Oxygen therapy | No | No | Yes | Yes | Yes |
| Nebulizers | No | No | Yes | Yes | Yes |
| Intensive care services | No | No | No | No | Yes |
| Regula follow up | Yes (Home based) | Yes | Yes | Yes | Yes |
| **Diagnostic test** | No | No | Yes | Yes | Yes |
| * Measure of lung function (Spirometry; Peak flow.) | No | No | Yes | Yes | Yes |
| * Methacholine challenge. | No | No | Yes | Yes | Yes |
| * Imaging tests- chest x ray | No | No | Yes | Yes | Yes |
| * Allergy testing. Either through a skin test or blood test | No | No | Yes | Yes | Yes |
| * Nitric oxide test to measure the amount of nitric oxide gas in the breath | No | No | Yes | Yes | Yes |
| * Sputum eosinophils | No | No | Yes | Yes | Yes |
| * Provocative testing for exercise and cold-induced asthma | No | No | Yes | Yes | Yes |
| **Rehabilitation interventions** |  |  |  |  |  |
| Physical exercises /physical therapy | Yes | Yes | Yes | Yes | Yes |
| **Palliative interventions** |  |  |  |  |  |
| Psychosocial support to patient and family members | Yes | Yes | Yes | Yes | Yes |
| Spiritual support | Yes | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |

### Chronic Obstructive Pulmonary Diseases

Chronic obstructive pulmonary disease (COPD) is a progressive life-threatening lung disease that causes breathlessness (initially with exertion) and predisposes to exacerbations and serious illness.

Table 32:prevention and management of chronic obstructive pulmonary diseases

| **Interventions by public health function** | **Interventions offered by level of service delivery** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Community** | **Health centre** | **District Hospital** | **Regional Hospital** | **Tertiary Hospital** |
| **Health Promotion Interventions** |  |  |  |  |  |
| Raise awareness among the communities on COPD | Yes | Yes | Yes | Yes | Yes |
| Educate community on environmental cleanliness and WASH. | Yes | Yes | Yes | Yes | Yes |
| Advocacy for creation of more healthy environments, especially for poor and disadvantaged populations; | Yes | Yes | Yes | Yes | Yes |
| Advocacy on reducing the risk factors such as tobacco smoking and exposure to second-hand smoke, | Yes | Yes | Yes | Yes | Yes |
| Sensitization of community health agents on predisposing risk factors. | Yes | Yes | Yes | Yes | Yes |
| Sensitize community on the need for regular health check-ups | Yes | Yes | Yes | Yes | Yes |
| Distribute IEC materials on COPD e.g., brochures, leaflet, booklets | Yes | Yes | Yes | Yes | Yes |
| Strengthen CHWs and Health workers knowledge on COPD through trainings /capacity building | Yes | Yes | Yes | Yes | Yes |
| **Health Prevention Interventions** |  |  |  |  |  |
| Sensitize on avoidance of risk factors and healthy lifestyle adoption including.   * Quit smoking and avoidance of exposure to secondary smoke * Occupational pollutants /exposure to chemical fumes and dust * Avoidance of exposure to indoor and outdoor air pollution and occupational dusts and fumes. | Yes | Yes | Yes | Yes | Yes |
| Guidance to individuals and families on adoption of healthy lifestyles   * Healthy diet * Physical activities | Yes | Yes | Yes | Yes | Yes |
| Guidance on -seeking treatment early for Lower tract infections | Yes | Yes | Yes | Yes | Yes |
| Flu vaccination and regular vaccination against pneumococcal pneumonia | Yes | Yes | Yes | Yes | Yes |
| **Curative interventions** |  |  |  |  |  |
| History and clinical examination | No | Yes | Yes | Yes | Yes |
| Recognition of symptoms indicative of COPD including breathing difficulty, cough, mucus (sputum) production and wheezing. | Yes | Yes | Yes | Yes | Yes |
| **Diagnostic tests:** |  |  |  |  |  |
| * Lung (pulmonary) function tests. | No | No | Yes | Yes | Yes |
| * Chest X-ray. | No | No | Yes | Yes | Yes |
| * CT scan. | No | No | No | Yes | Yes |
| * Arterial blood gas analysis. | No | No | Yes | Yes | Yes |
| Management of cough | No | Yes | Yes | Yes | Yes |
| Stabilizing the patient | Urgent referral | Yes | Yes | Yes | Yes |
| Guidance on Healthy eating /nutrition therapy | Yes | Yes | Yes | Yes | Yes |
| Guidance on smoking cessation to reduce the risk of getting worse | Yes | Yes | Yes | Yes | Yes |
| Referrals to next level for management | Yes -urgent referral | Yes | Yes | Yes | Yes |
| Medications-such as bronchodilators; inhaled steroids | No | No | Yes | Yes | Yes |
| Oxygen therapy | No | No | Yes | Yes | Yes |
| Management of other conditions such as Pneumonia; bronchitis eg with antibiotics to prevent aggravation of COPD | No | No | Yes | Yes | Yes |
| Surgical interventions | No | No | No | Yes | Yes |
| High care services | No | No | No | Yes | Yes |
| ICU services | No | No | No | No | Yes |
| Follow up including on treatment compliance | Yes-home based | Yes | Yes | Yes | Yes |
| **Rehabilitation interventions** |  |  |  |  |  |
| Physical therapy/physical activities/ Exercises | Yes | Yes | Yes | Yes | Yes |
| Provision of breathing equipment support | No | No | Yes | Yes | Yes |
| **Palliative interventions** |  |  |  |  |  |
| Psycho-social and spiritual support | Yes | Yes | Yes | Yes | Yes |
| Encourage and support for smoking cessation | Yes | Yes | Yes | Yes | Yes |
| Promote independent activities of daily living. | Yes | Yes | Yes | Yes | Yes |
| Counselling services for the patients and family /caregivers | Yes | Yes | Yes | Yes | Yes |
| home based care | Yes | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |

### Chronic Kidney Disease

Chronic kidney disease (CKD) is a long-term condition where the kidneys don't work as well as they should.

Table 33:prevention and management of chronic kidney disease

| **Interventions by public health function** | **Interventions offered by level of service delivery** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Community** | **Health centre** | **District Hospital** | **Regional Hospital** | **Tertiary Hospital** |
| **Health Promotion Interventions** |  |  |  |  |  |
| Sensitization of community on chronic kidney disease | Yes | Yes | Yes | Yes | Yes |
| Health education/provide information on predisposing risk factors | Yes | Yes | Yes | Yes | Yes |
| Distribute IEC materials | Yes | Yes | Yes | Yes | Yes |
| Training of HCWs and Health workers on chronic kidney diseases | Yes | Yes | Yes | Yes | Yes |
| **Disease prevention interventions** |  |  |  |  |  |
| Encourage adoption of healthy lifestyle including: | Yes | Yes | Yes | Yes | Yes |
| * Avoidance of excessive use of alcohol | Yes |  | Yes | Yes | Yes |
| * adequate fluids intake | Yes | Yes | Yes | Yes | Yes |
| * Healthy diet including use of less salty | Yes | Yes | Yes | Yes | Yes |
| * Discourage excessive use of traditional medicine | Yes | Yes | Yes | Yes | Yes |
| Encourage early health seeking behaviour | Yes | Yes | Yes | Yes | Yes |
| Routine screening for early detection of predisposing conditions e.g. diabetes /hypertension | Yes | Yes | Yes | Yes | Yes |
| Early and effective management of predisposing diseases such as hypertension and diabetes | No | Yes | Yes | Yes | Yes |
| Discourage unnecessary and excessive use of NSAID | Yes | Yes | Yes | Yes | Yes |
| **Curative interventions** |  |  |  |  |  |
| History; physical and clinical assessment | No | Yes | Yes | Yes | Yes |
| Radiological and laboratory investigations such as CXR, USS, FBC, U&Es | No | No | Yes | Yes | Yes |
| Counsel on treatment adherence | Yes | Yes | Yes | Yes | Yes |
| Admission/inpatient services | No | No | Yes | Yes | Yes |
| Refer to higher level of care for appropriate management | Yes | Yes | Yes | Yes | Yes |
| Medical management according to National treatment guideline such as diuresis, dialysis | No | No | Yes | Yes | Yes |
| Surgical interventions as per clinical guidelines | No | No | No | Yes | Yes |
| Kidney transplantation | No | No | No | No | Yes |
| Provide high care | No | No | No | Yes | Yes |
| ICU services | No | No | No | No | Yes |
| Follow up including on treatment compliance | Yes | Yes | Yes | Yes | Yes |
| **Rehabilitation interventions** |  |  |  |  |  |
| Encourage physical activity, | Yes | Yes | Yes | Yes | Yes |
| Provide elder friendly rehabilitation centres and infrastructures | Yes | Yes | Yes | Yes | Yes |
| **Palliative interventions** |  |  |  |  |  |
| psycho-social support with patients & family members | Yes | Yes | Yes | Yes | Yes |
| Spiritual support | Yes | Yes | Yes | Yes | Yes |
| Linkage to support groups to share experiences | Yes | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |

### Osteoporosis

Osteoporosis is a systemic skeletal disorder characterized by low [bone mass](https://en.wikipedia.org/wiki/Bone_mass), micro-architectural deterioration of [bone tissue](https://en.wikipedia.org/wiki/Bone_tissue) leading to bone fragility, and consequent increase in fracture risk. It is the most common reason for a broken bone among the [elderly](https://en.wikipedia.org/wiki/Old_age). Bones that commonly break include the [vertebrae](https://en.wikipedia.org/wiki/Vertebrae) in the [spine](https://en.wikipedia.org/wiki/Vertebral_column), the bones of the [forearm](https://en.wikipedia.org/wiki/Forearm), and the [hip](https://en.wikipedia.org/wiki/Hip).Until a broken bone occurs there are typically no symptoms. Bones may weaken to such a degree that a break may occur with minor stress or spontaneously. After the broken bone heals, the person may have [chronic pain](https://en.wikipedia.org/wiki/Chronic_pain) and a decreased ability to carry out normal activities.

Osteoporosis may be due to lower-than-normal [maximum bone mass](https://en.wikipedia.org/wiki/Peak_bone_mass) and greater-than-normal bone loss. Bone loss increases after [menopause](https://en.wikipedia.org/wiki/Menopause) due to lower levels of o[estrogen](https://en.wikipedia.org/wiki/Estrogen). Osteoporosis may also occur due to a number of diseases or treatments, including [alcoholism](https://en.wikipedia.org/wiki/Alcoholism), [anorexia](https://en.wikipedia.org/wiki/Anorexia_nervosa), [hyperthyroidism](https://en.wikipedia.org/wiki/Hyperthyroidism), [kidney disease](https://en.wikipedia.org/wiki/Kidney_disease), and [surgical removal of the ovaries](https://en.wikipedia.org/wiki/Oophorectomy). Certain medications increase the rate of bone loss, including some [antiseizure medications](https://en.wikipedia.org/wiki/Anticonvulsant), [chemotherapy](https://en.wikipedia.org/wiki/Chemotherapy), [proton pump inhibitors](https://en.wikipedia.org/wiki/Proton_pump_inhibitor), [selective serotonin reuptake inhibitors](https://en.wikipedia.org/wiki/Selective_serotonin_reuptake_inhibitors), and [glucocorticosteroids](https://en.wikipedia.org/wiki/Glucocorticoid). [Smoking](https://en.wikipedia.org/wiki/Tobacco_smoking), and too little [exercise](https://en.wikipedia.org/wiki/Exercise) are also risk factors.

Table 34:prevention and management of Osteoporosis

| **Interventions by public health function** | **Interventions offered by level of service delivery** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Community** | **Health centre** | **District Hospital** | **Regional Hospital** | **Tertiary Hospital** |
| **Health Promotion Interventions** |  |  |  |  |  |
| Create community awareness on osteoporosis | Yes | Yes | Yes | Yes | Yes |
| Health education to communities on the risk factors of osteoporosis and prevention measures | Yes | Yes | Yes | Yes | Yes |
| Distribute IEC materials, such as brochures, leaflet, booklets | Yes | Yes | Yes | Yes | Yes |
| Promote early health care seeking behaviour | Yes | Yes | Yes | Yes | Yes |
| Sensitization of elderly, families, community health agents on reduction of falls and healthy diet containing calcium. | Yes | Yes | Yes | Yes | Yes |
| Train CHWs and health care workers on osteoporosis | Yes | Yes | Yes | Yes | Yes |
| **Disease prevention interventions** |  |  |  |  |  |
| Encourage positive life-style modifications including physical activities, such as low impact exercises (walking, swimming or yoga), | Yes | Yes | Yes | Yes | Yes |
| Guidance on use of good nutrition: rich balanced diet focusing on calcium and vitamin D containing food. | Yes | Yes | Yes | Yes | Yes |
| Encourage early healthy seeking behaviour | Yes | Yes | Yes | Yes | Yes |
| Guidance on Maintaining a healthy weight to reduce pressure on the joints | Yes | Yes | Yes | Yes | Yes |
| Screening of people at high risk | No | No | Yes | Yes | Yes |
| Education on avoidance of smoking, and excess alcohol consumption which can all increase the risk of a person developing osteoporosis | Yes | Yes | Yes | Yes | Yes |
| **Curative interventions** |  |  |  |  |  |
| Physical and Clinical assessment | No | No | Yes | Yes | Yes |
| Supportive management eg exercices ; Diet therapy | Yes (as advised/guided | Yes | Yes | Yes | Yes |
| Medication e.g. for pain | As prescribed | Yes | Yes | Yes | Yes |
| Suppléments eg vitamin D suppléments. | As prescribed | Yes | Yes | Yes | Yes |
| Assess to prevent further complications | No | No | Yes | Yes | Yes |
| Referrals to next level for management | Yes | Yes | Yes | Yes | Yes |
| **Investigations** |  |  |  |  |  |
| * Blood tests : Serum Ca+, oestrogen , progesterone, 1,2,5 Di hydroxyl calciferone | No | No | Yes | Yes | Yes |
| * X rays | No | No | Yes | Yes | Yes |
| * CT scan | No | No | No | Yes | Yes |
| * MRI | No | No | No | No | Yes |
| Admissions if necessary | No | No | Yes | Yes | Yes |
| Monitoring for any signs of complications | Yes | Yes | Yes | Yes | Yes |
| management of any fractures as a result of osteoporosis | No | No | Yes | Yes | Yes |
| surgical interventions such as kyphoplasty can be performed. | No | No | No | No | Yes |
| Hormonal replacement therapy e.g., Oestrogen replacement therapy and calcitonin for post-menopausal women. | No | No | No | No | Yes |
| Follow up even through back referral | Yes | Yes | Yes | Yes | Yes |
| **Rehabilitation interventions** |  |  |  |  |  |
| Physical therapy even through Community based rehabilitation | Yes | Yes | Yes | Yes | Yes |
| Environmental modification for independent activities of daily living | Yes | Yes | Yes | Yes | Yes |
| Multidisciplinary intervention | Yes | Yes | Yes | Yes | Yes |
| Provide movement support (wheelchair, crutches, toilet seat etc.) | Yes | Yes | Yes | Yes | Yes |
| Provide mobility support aids | Yes | Yes | Yes | Yes | Yes |
| **Palliative interventions** |  |  |  |  |  |
| Psycho-social & spiritual support | Yes | Yes | Yes | Yes | Yes |
| Home based care | Yes | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |

### Parkinson’s disease

Parkinson's disease occurs when nerve cells, or neurons, in an area of the brain that controls movement become impaired and/or die.

Table 35: prevention and management of Parkinson’s disease

| **Interventions by public health function** | **Interventions offered by level of service delivery** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Community** | **Health centre** | **District Hospital** | **Regional Hospital** | **Tertiary Hospital** |
| **Health Promotion Interventions** |  |  |  |  |  |
| Awareness creation among communities /families on parkinsonism disease including early onset parkinsonism disease | Yes | Yes | Yes | Yes | Yes |
| Sensitize community on early signs and symptoms of Parkinson's disease | Yes | Yes | Yes | Yes | Yes |
| advocacy programs on parkinsonism | Yes | Yes | Yes | Yes | Yes |
| Distribute IEC materials | Yes | Yes | Yes | Yes | Yes |
| CHWs / and Health workers training on parkinsonism and its management (strengthen their knowledge on parkinsonism | Yes | Yes | Yes | Yes | Yes |
| **Disease prevention interventions** |  |  |  |  |  |
| Encourage regular Exercise to reduce the risk of early onset Parkinson's disease or onset later in life. | Yes | Yes | Yes | Yes | Yes |
| Advice /guidance on other preventive measures such as | Yes | Yes | Yes | Yes | Yes |
| * Avoidance of exposure to pesticides and herbicides | Yes | Yes | Yes | Yes | Yes |
| * Use of vitamins such as Vitamin C and E | Yes | Yes | Yes | Yes | Yes |
| Encourage adherence to treatment /treatment compliance | Yes | Yes | Yes | Yes | Yes |
| **Curative interventions** |  |  |  |  |  |
| Identification of suspected Parkinson's cases | Yes | Yes | Yes | Yes | Yes |
| Thorough Medical history; physical and neurological examination | No | Yes | Yes | Yes | Yes |
| Supportive treatment |  |  |  |  |  |
| * Diet therapy /guidance on balanced diet | Yes | Yes | Yes | Yes | Yes |
| * Pain management | As prescribed | Yes | Yes | Yes | Yes |
| * Nutritional supplements | Yes | Yes | Yes | Yes | Yes |
| Encourage /Advice on adherence to medication | Yes | Yes | Yes | Yes | Yes |
| Monitoring for any complications arising including difficulties in swallowing; urine incontinence; breathing complications | Recognize and refer | Yes | Yes | Yes | Yes |
| Stabilize patient in case on any complications e.g. patient with difficulties in breathing before referral to a hospital | No (refer | Yes | Yes | Yes | Yes |
| Referral for a patient with parkinsonism for further management | Yes | Yes | Yes | Yes | Yes |
| Follow up including after referral back | Yes | Yes | Yes | Yes | Yes |
| **Rehabilitation interventions** |  |  |  |  |  |
| Regular Physical Exercise programs for elderly persons with Parkinsonism disease to improve mobility and flexibility even thro CBR | Yes | Yes | Yes | Yes | Yes |
| Generalized relaxation techniques such as gentle rocking to improve flexibility | Yes | Yes | Yes | Yes | Yes |
| Provision of elderly friendly environment on physical structure & social services | Yes | Yes | Yes | Yes | Yes |
| Multidisciplinary rehabilitation programme (Physiotherapy, Occupational therapy, speech therapy nursing care etc.) -even home based | Yes | Yes | Yes | Yes | Yes |
| **Palliative interventions** |  |  |  |  |  |
| Psycho-social support to the elderly, care givers and family. | Yes | Yes | Yes | Yes | Yes |
| Linkage to psychosocial support groups | Yes | Yes | Yes | Yes | Yes |
| Palliative care to improve quality of life for both the person with Parkinson's and the family by   * *providing relief from the symptoms such as pain for the patient* * *Stress relief for the patient and families.* | Yes (pain management only as prescribed | As prescribed | Yes | Yes | Yes |
| Provide emotional support/counselling to address factors such as loss of function and jobs, depression, fear, | Yes | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |

### Arthritis

Arthritis is a chronic systemic disease that affects the joints, connective tissues, muscle, tendons, and fibrous tissue. Symptoms generally include joint pain and stiffness while others may include redness, warmth, swelling, and decreased range of motion of the affected joints. There are many types of arthritis with the most common being, osteoarthritis (degenerative joint disease) and rheumatoid arthritis

Table 36:prevention and management of arthritis

| **Interventions by public health function** | **Interventions offered by level of service delivery** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Community** | **Health centre** | **District Hospital** | **Regional Hospital** | **Tertiary Hospital** |
| **Health Promotion Interventions** |  |  |  |  |  |
| Create community awareness on arthritis | Yes | Yes | Yes | Yes | Yes |
| Health education to communities on the risk factors of arthritis and prevention measures | Yes | Yes | Yes | Yes | Yes |
| Distribute IEC materials, such as brochures, leaflet, booklets | Yes | Yes | Yes | Yes | Yes |
| Promote early health care seeking behaviour | Yes | Yes | Yes | Yes | Yes |
| Sensitization of community and stakeholders on early signs and symptoms of arthritis (joint pain, redness tenderness). | Yes | Yes | Yes | Yes | Yes |
| Promote physical activity and healthy diet | Yes | Yes | Yes | Yes | Yes |
| Educate patients & family on aggravating factors, home and self-care | No | No | Yes | Yes | Yes |
| Conduct health education on signs and symptoms of arthritis along with its complications, aggravating factors, home and self-care for the patients and family members. | No | No | Yes | Yes | Yes |
| Train CHWs and health care workers on arthritis | Yes | Yes | Yes | Yes | Yes |
| **Disease prevention interventions** |  |  |  |  |  |
| Encourage positive life-style modifications including physical activities, such as low impact exercises (walking, swimming or yoga), | Yes | Yes | Yes | Yes | Yes |
| Guidance on use of good nutrition: rich balanced diet eg olive oil, nuts, berries | Yes | Yes | Yes | Yes | Yes |
| Encourage early healthy seeking behaviour | Yes | Yes | Yes | Yes | Yes |
| Guidance on Maintaining a healthy weight to reduce pressure on the joints | Yes | Yes | Yes | Yes | Yes |
| Screening of people at high risk | No | No | Yes | Yes | Yes |
| Education on avoidance of smoking, which can all increase the risk of a person developing arthritis | Yes | Yes | Yes | Yes | Yes |
| **Curative interventions** |  |  |  |  |  |
| History, physical and clinical assessment | No | No | Yes | Yes | Yes |
| Conservative management through: encouraging rest; weight management; exercises | Yes | Yes | Yes | Yes | Yes |
| Pain relieve with analgesics eg ibuprofen; NSAIDs | No | Yes | Yes | Yes | Yes |
| Admission when necessary | No | No | Yes | Yes | Yes |
| **Investigations** |  |  |  |  |  |
| * Blood tests | No | No | Yes | Yes | Yes |
| * X-rays | No | No | Yes | Yes | Yes |
| Referral to the next level of care as necessary | Yes | Yes | Yes | Yes | Yes |
| Monitoring and prevention of further complications | No | No | Yes | Yes | Yes |
| Surgical interventions such as joint repair; joint replacement, joint infusion and joint replacement be provided | No | No | No | No | Yes |
| Provision of adaptive Aids /assistive devices | No | No | Yes | Yes | Yes |
| Follow up including through back referrals | Yes | Yes | Yes | Yes | Yes |
| **Rehabilitation interventions** |  |  |  |  |  |
| Physical therapy /Physical activities including through CBR | Yes | Yes | Yes | Yes | Yes |
| Occupational therapy including through CBR | Yes | Yes | Yes | Yes | Yes |
| Environmental modification for independent activities of daily living | Yes | Yes | Yes | Yes | Yes |
| Link to Rehabilitation centre | Yes | Yes | Yes | Yes | Yes |
| Facilitate movement support (eg., crutches, toilet seat | Yes | Yes | Yes | Yes | Yes |
| **Palliative interventions** |  |  |  |  |  |
| Psycho-social & spiritual support | Yes | Yes | Yes | Yes | Yes |
| Home based care | Yes | Yes | Yes | Yes | Yes |
| Counselling & reassurance of patients on disease conditions and complications. | Yes | Yes | Yes | Yes | Yes |
| Conduct group therapy sessions for patients with arthritis, | Yes | Yes | Yes | Yes | Yes |
|  | | | | | |

### Muscular Skeletal Disease

Musculoskeletal conditions comprise more than 150 conditions that affect the locomotor system of individuals. They range from those that arise suddenly and are short-lived, such as fractures, sprains and strains, to lifelong conditions associated with ongoing functioning limitations and disability. Musculoskeletal conditions are typically characterized by pain (often persistent) and limitations in mobility, dexterity and overall level of functioning, reducing people’s ability to work.

Table 37:prevention and management of Muscular Skeletal diseases

| **Interventions by public health function** | **Interventions offered by level of service delivery** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Community** | **Health centre** | **District Hospital** | **Regional Hospital** | **Tertiary Hospital** |
| **Health Promotion Interventions** |  |  |  |  |  |
| Create community awareness on musculoskeletal diseases | Yes | Yes | Yes | Yes | Yes |
| Promote healthy lifestyle (healthy nutrition, physical exercises; minimizing stress; avoidance of tobacco and harmful use of alcohol .) | Yes | Yes | Yes | Yes | Yes |
| Advocacy on musculosketal diseases |  |  |  |  |  |
| Distribution of IEC Material | Yes | Yes | Yes | Yes | Yes |
| Training of CHWs and health workers on Musculo-skeletal diseases (strengthen their knowledge) | Yes | Yes | Yes | Yes | Yes |
| **Disease prevention interventions** |  |  |  |  |  |
| Primordial prevention of risk factors E.g., Promote healthy life- style, exercise, tobacco cessation, avoiding harmful alcohol consumption, increasing physical activity, adopting a healthy diet | Yes | Yes | Yes | Yes | Yes |
| Provide medical treatment for infections | No | Yes | Yes | Yes | Yes |
| Education on how to minimize stress | No | Yes | Yes | Yes | Yes |
| Promote adherence to treatment | Yes | Yes | Yes | Yes | Yes |
| Provide food Supplements | No | Yes | Yes | Yes | Yes |
| Routine screening | No | No | Yes | Yes | Yes |
| Educate the community to identify early signs and symptoms MSD | No | No | No | No | Yes |
| **Curative interventions** |  |  |  |  |  |
| History; physical and clinical Assessment | No | Yes | Yes | Yes | Yes |
| Symptomatic management of MSD | No | Yes | Yes | Yes | Yes |
| Provision of supportive treatment | No | Yes | Yes | Yes | Yes |
| Provide medical treatment for infections | No | Yes | Yes | Yes | Yes |
| Promote Adherence to prescribed medications and supplements | Yes | Yes | Yes | Yes | Yes |
| Refer to next level for management | Yes | Yes | Yes | Yes | Yes |
| Hospital admission | No | No | Yes | Yes | Yes |
| Clinical management | No | No | Yes | Yes | Yes |
| Screening/examination for MSD, | No | No | Yes | Yes | Yes |
| Provide treatment for infections | No | Yes | Yes | Yes | Yes |
| **investigations** |  |  |  |  |  |
| Laboratory investigations including endocrine investigations | No | No | No | No | Yes |
| X-Ray, | No | No | Yes | Yes | Yes |
| Biopsy | No | No | No | Yes | Yes |
| Surgical procedures | No | No | No | Yes | Yes |
| High care services | No | No | No | Yes | Yes |
| ICU | No | No | No | No | Yes |
| Follow-up including through home-based care or community rehab/or back referrals | Yes | Yes | Yes | Yes | Yes |
| **Rehabilitation interventions** |  |  |  |  |  |
| Physiotherapy | Yes | Yes | Yes | Yes | Yes |
| Basic exercises | Yes | Yes | Yes | Yes | Yes |
| Provision of assisting devices | No | No | Yes | Yes | Yes |
| **Palliative interventions** |  |  |  |  |  |
| Psychological and psychosocial support | Yes | Yes | Yes | Yes | Yes |
| Nutritional support | Yes | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |

### Epilepsy

Epilepsy is a condition characterized by repeated seizures due to a disorder of the brain cells

Table 38:prevention and management of epilepsy

| **Interventions by public health function** | **Interventions offered by level of service delivery** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Community** | **Health centre** | **District Hospital** | **Regional Hospital** | **Tertiary Hospital** |
| **Health Promotion Interventions** |  |  |  |  |  |
| Provide information and create awareness on epilepsy, its recognition and prevention measure | Yes | Yes | Yes | Yes | Yes |
| Education to mitigate, discrimination and social stigma | Yes | Yes | Yes | Yes | Yes |
| Distribute and display IEC materials on epilepsy | Yes | Yes | Yes | Yes | Yes |
| Integration of epilepsy care in different levels of service delivery | Yes | Yes | Yes | Yes | Yes |
| Training of VHWs on epilepsy – including signs and symptoms, prevention of epileptic attacks, and its management at community level | Yes | Yes | Yes | Yes | Yes |
| Refresher trainings of health workers on epilepsy – including signs and symptoms, prevention of epileptic attacks, and its management at community level | No | Yes | Yes | Yes | Yes |
| Promote Multi sectoral approach in promotion of access to opportunities such as educational, occupations to epileptics | Yes | Yes | Yes | Yes | Yes |
| Promote public private partnership to improve care and reduce the disease impact | Yes | Yes | Yes | Yes | Yes |
| **Disease prevention interventions** |  |  |  |  |  |
| Preventing head injuries to prevent post traumatic epilepsy | Yes | Yes | Yes | Yes | Yes |
| Promote early health seeking behaviour educate family members on reduction of hazards that predispose epileptics to injuries | Yes | Yes | Yes | Yes | Yes |
| Early detection and management of infectious diseases, e.g., meningitis | Yes | Yes | Yes | Yes | Yes |
| Advocate for treatment adherence | Yes | Yes | Yes | Yes | Yes |
| **Curative interventions** |  |  |  |  |  |
| History and clinical examination | No | Yes | Yes | Yes | Yes |
| Early recognition of signs and symptoms of epilepsy, e.g., recurrent seizures | Yes | Yes | Yes | Yes | Yes |
| Relief of any pain due to physical injuries as a result of epilepsy | Yes | Yes | Yes | Yes | Yes |
| First aid on complications due to seizures e.g., burns, tongue bite. | Yes | Yes | Yes | Yes | Yes |
| Psychosocial support for patients with anxiety and/or depression due to epilepsy | Yes | Yes | Yes | Yes | Yes |
| Refer to a higher level for management | Yes | Yes | Yes | Yes | Yes |
| Encourage Adhere to the prescribed treatment | Yes | Yes | Yes | Yes | Yes |
| Management of varied symptoms associated with seizures, including loss of awareness or consciousness, and disturbances of movement, sensation (including vision, hearing, and taste) or other cognitive functions | No | Yes | Yes | Yes | Yes |
| Management of physical injuries associated with epilepsy, such as bruising | No | Yes | Yes | Yes | Yes |
| Management of psychological conditions, including anxiety and depression. | No | No | Yes | Yes | Yes |
| Provision of refills | No | Yes | Yes | Yes | Yes |
| Provision of oxygen for patients with status epilepticus | No | No | Yes | Yes | Yes |
| Provision of intravenous anti-epileptic medicines | No | No | No | No | Yes |
| Provision of ICU for patients with status epilepticus | No | No | No | No | Yes |
| Provide general anaesthesia for patients with status epilepticus | No | No | No | No | Yes |
| Surgical management of contractures sustained from burns | No | No | No | No | Yes |
| Regula Follow up including community based | Yes | Yes | Yes | Yes | Yes |
| **Rehabilitation interventions** |  |  |  |  |  |
| Promote access to occupational health opportunities/ education | Yes | Yes | Yes | Yes | Yes |
| Continuously engage the clients on community activities including recreational activities | Yes | Yes | Yes | Yes | Yes |
| Rehabilitate patient to self-care and adopted lifestyle. | No | No | Yes | Yes | Yes |
| Physiotherapy for patients with contractures sustained due to burns | No | No | No | No | Yes |
| Occupational therapy for patients with mental and/or physical disability | No | No | No | No | Yes |
| **Palliative interventions** |  |  |  |  |  |
| Psychosocial support for the patient and their families | Yes | Yes | Yes | Yes | Yes |
| Provide emotional support and care | Yes | Yes | Yes | Yes | Yes |
| Provide family counselling | No | No | Yes | Yes | Yes |
| Societal education to reduce discrimination and social stigma | Yes | Yes | Yes | Yes | Yes |
| Continuous encouragement on treatment adherence | Yes | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |

## Mental Health

### Depression

Depression is a common mental disorder, characterized by sadness, loss of interest or pleasure, feelings of guilt or low self-worth, disturbed sleep or appetite, feelings of tiredness and poor concentration.

***Table 58 prevention and management of depression***

| Interventions by public health function | Interventions offered by level of service delivery | | | | |
| --- | --- | --- | --- | --- | --- |
| Community | Health centre | District Hospital | Regional Hospital | Tertiary Hospital |
| **Health Promotion Interventions** |  |  |  |  |  |
| Community awareness about depression | Yes | Yes | Yes | Yes | Yes |
| Training of peer mentors and village health workers about depression and management | Yes | Yes | Yes | Yes | Yes |
| SBCC message about depression | Yes | Yes | Yes | Yes | Yes |
| Create Community awareness on risk factors e.g., alcohol and substance abuse | Yes | No | Yes | Yes | Yes |
| Advocate for recreational and Wellness centers; | Yes | Yes | Yes | Yes | Yes |
| Health education on management of daily stress and healthy lifestyle | Yes | Yes | Yes | Yes | Yes |
| Advocacy for mental health services | Yes | Yes | Yes | Yes | Yes |
| Distribution of IEC materials | Yes | Yes | Yes | Yes | Yes |
| Strengthen CHWs and Health workers knowledge on depression through Trainings | Yes | Yes | Yes | Yes | Yes |
| **Disease prevention interventions** |  |  |  |  |  |
| Promote provision of support for vulnerable members of community | Yes | Yes | Yes | Yes | Yes |
| Guidance on Avoidance of alcohol and substance abuse | Yes | Yes | Yes | Yes | Yes |
| Encourage participation in physical activities /exercises | Yes | Yes | Yes | Yes | Yes |
| Encourage /guidance on meditation |  |  |  |  |  |
| Guidance of individuals /families /communities on participation of recreational /relaxing activities eg music therapy/ reading; sleep | Yes | Yes | Yes | Yes | Yes |
| Education /guidance on stigma and discrimination reduction | Yes | Yes | Yes | Yes | Yes |
| Advice on healthy diets | Yes | Yes | Yes | Yes | Yes |
| Provide counselling for vulnerable people | Yes | Yes | Yes | Yes | Yes |
| Manage conditions that predispose to depression | Yes | Yes | Yes | Yes | Yes |
| Provide focused group discussions on mental health issues – e.g., school health to deal with substance abuse, behavioural issues | Yes | Yes | Yes | Yes | Yes |
| Advocacy for Establishment and use of recreational and wellness centres | Yes | Yes | Yes | Yes | Yes |
| Advice on maintenance of healthy weight | Yes |  |  |  |  |
| Guidance on Avoidance of alcohol and substance abuse | Yes | Yes | Yes | Yes | Yes |
| **Curative interventions** |  |  |  |  |  |
| Recognize signs indicative of depression | Yes | Yes | Yes | Yes | Yes |
| History, physical examination, | No | Yes | Yes | Yes | Yes |
| Support on depression treatment and adherence treatment | Yes | Yes | Yes | Yes | Yes |
| Early referral to appropriate care level | Yes | Yes | Yes | Yes | Yes |
| Psychosocial therapy | No | Yes | Yes | Yes | Yes |
| Behavioural therapy | No | No | Yes | Yes | Yes |
| Psychotherapy | No | No | Yes | Yes | Yes |
| Medication: Use of ant-depressants | No | No | Yes | Yes | Yes |
| Management of underlying factors eg drug abuse | No | No | Yes | Yes | Yes |
| Use of medical devices |  |  |  |  |  |
| * [Electroconvulsive therapy](https://en.wikipedia.org/wiki/Management_of_depression#Electroconvulsive_therapy) | No | No | No | No | Yes |
| * [Deep brain stimulation](https://en.wikipedia.org/wiki/Management_of_depression#Deep_brain_stimulation) | No | No | No | No | Yes |
| * [Repetitive transcranial magnetic stimulation](https://en.wikipedia.org/wiki/Management_of_depression#Repetitive_transcranial_magnetic_stimulation) | No | No | No | No | Yes |
| * [Vagus nerve stimulation](https://en.wikipedia.org/wiki/Management_of_depression#Vagus_nerve_stimulation) | No | No | No | No | Yes |
| * [Cranial electrotherapy stimulation](https://en.wikipedia.org/wiki/Management_of_depression#Cranial_electrotherapy_stimulation) | No | No | No | No | Yes |
| Guidance to patient on [Other treatments](https://en.wikipedia.org/wiki/Management_of_depression#Other_treatments) forms including |  |  |  |  |  |
| * [Exercise](https://en.wikipedia.org/wiki/Management_of_depression#Exercise) therapy | Yes | Yes | Yes | Yes | Yes |
| * [Meditation](https://en.wikipedia.org/wiki/Management_of_depression#Meditation) | Yes | Yes | Yes | Yes | Yes |
| * [Music therapy](https://en.wikipedia.org/wiki/Management_of_depression#Music_therapy) | Yes | Yes | Yes | Yes | Yes |
| * Adequate [Sleep](https://en.wikipedia.org/wiki/Management_of_depression#Sleep) | Yes | Yes | Yes | Yes | Yes |
| Management of any Treatment of complications | No | No | Yes | Yes | Yes |
| High care services | No | No | No | Yes | Yes |
| ICU Services | No | No | No | No | Yes |
| **Rehabilitation interventions** |  |  |  |  |  |
| Physiotherapy/physical exercises | Yes | Yes | Yes | Yes | Yes |
| Occupational therapy including thro CBR | Yes | Yes | Yes | Yes | Yes |
| Speech therapy | No | No | Yes | Yes | Yes |
| **Palliative interventions** |  |  |  |  |  |
| Provision of: home-based care | Yes | Yes | Yes | Yes | Yes |
| Psychological support | Yes | Yes | Yes | Yes | Yes |
| Spiritual support | Yes | Yes | Yes | Yes | Yes |
| Nutritional support | Yes | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |

### Alzheimer

Alzheimer’s disease is an irreversible, progressive brain disorder that slowly destroys memory and thinking skills and, eventually, the ability to carry out the simplest tasks.

Table 39:prevention and management of Alzheimer

| **Interventions by public health function** | **Interventions offered by level of service delivery** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Community** | **Health centre** | **District Hospital** | **Regional Hospital** | **Tertiary Hospital** |
| **Health Promotion Interventions** |  |  |  |  |  |
| Create awareness on Alzheimer’s and dementia including prevention measures | Yes | Yes | Yes | Yes | Yes |
| Sensitization of community health agents on predisposing risk factors. | Yes | Yes | Yes | Yes | Yes |
| Promote Advocacy programs for Alzheimer’s disease eg. community advocacy programs | Yes | Yes | Yes | Yes | Yes |
| Distribute IEC materials: eg brochures, leaflet, booklets etc. | Yes | Yes | Yes | Yes | Yes |
| Integrated outreach services to the communities | No | Yes | Yes | Yes | Yes |
| Training of CHWs and health care workers on Alzheimer’s /strengthen their knowledge | Yes | Yes | Yes | Yes | Yes |
| **Disease prevention interventions** |  |  |  |  |  |
| Encourage individuals especially elderly to engage in intellectual activities (reading, game, playing music instruments, knitting, board games, yoga, capacitor,) | Yes | Yes | Yes | Yes | Yes |
| Encourage elderly to participate in regular social interaction | Yes | Yes | Yes | Yes | Yes |
| Encourage physical activities | Yes | Yes | Yes | Yes | Yes |
| Guidance on Prevention of injuries | Yes | Yes | Yes | Yes | Yes |
| Encourage elderly to have proper sleeping patterns | Yes | Yes | Yes | Yes | Yes |
| Maintenance of healthy lifestyles including healthy diet | Yes | Yes | Yes | Yes | Yes |
| Encourage participation in in family and community activities | Yes | Yes | Yes | Yes | Yes |
| Promote early health seeking behaviour for early detection | Yes | Yes | Yes | Yes | Yes |
| Promote safe environment at different places including homes | Yes | No | No | Yes | Yes |
| **Curative interventions** |  |  |  |  |  |
| Medical history and examination including behaviour observation, | Yes | Yes | Yes | Yes | Yes |
| Assessments of intellectual functioning including memory testing / cognitive testing | Yes | Yes | Yes | Yes | Yes |
| Assess and identify elders on cognitive impairment through simple memory and orientation test and neurological assessment | No | Yes | Yes | Yes | Yes |
| Psychosocial support including behavioural therapy | Yes | Yes | Yes | Yes | Yes |
| Monitoring for any indication of complications including swallowing difficulties; oral and dental disease, pressure ulcers, malnutrition, hygiene problems, or respiratory, skin, or eye infections. | Yes | Yes | Yes | Yes | Yes |
| Management of complications | No (Refer | Yes Mild | Yes | Yes | Yes |
| Promote stigma reduction | Yes | Yes | Yes | Yes | Yes |
| Referral to the appropriate health facilities | Yes | Yes | Yes | Yes | Yes |
| Guidance on Exercise programs to improve activities of daily living and improve outcomes. | Yes | Yes | Yes | Yes | Yes |
| Medication -cholinesterase inhibitors; Memantine (Namenda) | No | No | No | Yes | Yes |
| Enhance physical activity and people’s interaction for known case | Yes | Yes | Yes | Yes | Yes |
| Counselling on treatment compliance | Yes | Yes | Yes | Yes | Yes |
| Provision of Nursing care /relieve discomfort | No | No | Yes | Yes | Yes |
| Supporting cognitive function to minimize confusion and disorientation. | No | Yes | Yes | Yes | Yes |
| Guidance on physical safety through safe environment eg at home | Yes | Yes | Yes | Yes | Yes |
| High care services | No | No | No | Yes | Yes |
| Referrals including referrals back | No | Yes | Yes | Yes | Yes |
| **Diagnostics** |  |  |  |  |  |
| Laboratory tests (complete blood cell count, chemistry profile, and vitamin B12 deficiency and examination of the cerebrospinal fluid (CSF) | No | No | Yes | Yes | Yes |
| **Imaging** |  |  |  |  |  |
| CT scan | No | No | No | No | Yes |
| MRI | No | No | No | No | Yes |
| Electroencephalography (EEG) | No | No | No | No | Yes |
| *N/B Post-mortem / Examination of brain tissue for a definite diagnosis* | No | No | No | No | Yes |
| **Rehabilitation interventions** |  |  |  |  |  |
| Promote exercise | Yes | Yes | Yes | Yes | Yes |
| Community based rehabilitation (CBR) | Yes | Yes | Yes | Yes | Yes |
| Cognitive rehabilitation | Yes | Yes | Yes | Yes | Yes |
| Multidisciplinary rehabilitation programme (Physiotherapy, Occupational therapy, speech therapy nursing care etc.) | Yes | Yes | Yes | Yes | Yes |
| Nutritional support/ nutritional rehabilitation | Yes | Yes | Yes | Yes | Yes |
| **Palliative interventions** |  |  |  |  |  |
| Psychological support | Yes | Yes | Yes | Yes | Yes |
| Spiritual support | Yes | Yes | Yes | Yes | Yes |
| Linkage to Psycho-social and spiritual support | Yes | Yes | Yes | Yes | Yes |
| Home based care | Yes | Yes | Yes | Yes | Yes |
| Guide patient & caregivers on activities of daily living (ADL) | Yes | Yes | Yes | Yes | Yes |
| Counselling families and linkage to support structures | Yes | Yes | Yes | Yes | Yes |
| End life support | Yes | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |

## Cancer

**This section covers interventions geared towards cancer in the various levels of care. This includes different cancers such as cervical cancer, breast cancer, prostate cancer, oral cancers as well as childhood cancers.**

Table 40:prevention and management of Cancer

| **Cancer interventions** | **Service components offered by level of service delivery** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Community** | **Health centre** | **District Hospital** | **Regional Hospital** | **Referral hospital** | |
| **Health promotion** |  |  |  |  |  | |
| Awareness creation to communities; families and individual on cancer plus prevention | Yes | Yes | Yes | Yes | Yes | |
| Promote healthy lifestyles | Yes | Yes | Yes | Yes | Yes | |
| Advocacy for cancer eg observation on health dyads/cancer days |  |  |  |  |  | |
| Distribution of IEC materials | Yes | Yes | Yes | Yes | Yes | |
| Multi-sectoral collaboration on control of risk factors | Yes | Yes | Yes | Yes | Yes | |
| Health education on risk factors of cancers e.g. alcohol use, smoking, unhealthy diet, physical inactivity | Yes | Yes | Yes | Yes | Yes | |
| Promote early healthy seeking behaviour and regular check ups | Yes | Yes | Yes | Yes | Yes | |
| Training of CHWs/ /Health workers on cancer (strengthen their knowledge | Yes | Yes | Yes | Yes | Yes | |
| **Disease prevention** |  |  |  |  |  | |
| Screening and early detection e.g. | Yes | Yes | Yes | Yes | Yes | |
| * Guidance on Breast self-examination | Yes | Yes | Yes | Yes | Yes | |
| * Clinical examination of breast by a health worker | No | Yes | Yes | Yes | Yes | |
| * Mammography for breast cancer screening | No | No | No | Yes | Yes | |
| * Cervical cancer screening e.g with Visual examination with Acetic acid | No | No | Yes | Yes | Yes | |
| * Prostate cancer screening -PSA | No | No | No | Yes | Yes | |
| * Early diagnosis of some malignancies in childhood such as ALL, AML, Hodgkin and Non-Hodgkin lymphomas | No | No | No | No | Yes | |
| * Oral and oro-pharyngeal cancer |  |  |  |  |  | |
| Guidance to communities/individuals on adoption of healthy lifestyle -avoidance of -tobacco products, avoidance of alcohol, healthy diet; physical activity | Yes | Yes | Yes | Yes | Yes | |
| Health education on risk factors | Yes | Yes | Yes | Yes | Yes | |
| Encourage communities/individuals to avoid traditional healers and seek health care early | Yes | Yes | Yes | Yes | Yes | |
| Information to individuals on self -examination | Yes | Yes | Yes | Yes | Yes | |
| Conduct routine check-ups -e.g. oral health check-ups for oral cancers et | No | Yes | Yes | Yes | Yes | |
| Vaccination (for some cancers e.g., HPV vaccine) | Yes | Yes | Yes | Yes | Yes | |
| Documentation and reporting; | Yes | Yes | Yes | Yes | Yes | |
| Operations and epidemiological studies | Yes | Yes | Yes | Yes | Yes | |
| **Curative interventions** |  |  |  |  |  | |
| Recognition of signs indicative of cancer | Yes | Yes | Yes | Yes | Yes | |
| Taking a history | No | Yes | Yes | Yes | Yes | |
| Physical and clinical examination | No | Yes | Yes | Yes | Yes | |
| Supportive management | Yes | Yes | Yes | Yes | Yes | |
| * Pain therapy | Yes | Yes | Yes | Yes | Yes | |
| * Nutrition support | Yes | Yes | Yes | Yes | Yes | |
| Admissions | No | No | Yes | Yes | Yes | |
| Management of opportunistic infection | No | Yes | Yes | Yes | Yes | |
| Management of any underlying conditions | No | Yes | Yes | Yes | Yes | |
| Management of any complications | No | No | Yes | Yes | Yes | |
| Transfusions | No | No | Yes | Yes | Yes | |
| Oxygen therapy | No | No | Yes | Yes | Yes | |
| Chemotherapy | No | No | No | No | Yes | |
| Surgical interventions | No | No | No | Yes | Yes | |
| Radiotherapy | No | No | No | No | Yes | |
| Hormonal therapy e.g. for Breast cancer | No | No | No | Yes | Yes | |
| High dependency services/High care | No | No | No | Yes | Yes | |
| ICU services | No | No | No | No | Yes | |
| Referral to the next level of care | Yes | Yes | Yes | Yes | Yes | |
| Counselling on treatment compliance | Yes | Yes | Yes | Yes | Yes | |
| Post treatment Follow up | No | Yes | Yes | Yes | Yes | |
| **Diagnostics** |  |  |  |  |  | |
| * Blood tests e.g. blood film | No | No | Yes | Yes | Yes | |
| * Imaging - | No | No | Yes | Yes | Yes | |
| * + X-rays | No | No | Yes | Yes | Yes | |
| * + CT scan | No | No | No | Yes | Yes | |
| * + MRI | No | No | No | No | Yes | |
| * Endoscopy | No | No | No | Yes | Yes | |
| * Biopsies | No | No | Yes | Yes | Yes | |
| * Smears | No | No | Yes | Yes | Yes | |
| * Mammography | No | No | Yes | Yes | Yes | |
| * Gene testing -BRCA testing for women high family risk of Breast cancer | No | No | No | No | Yes | |
| **Rehabilitation** |  |  |  |  |  | |
| Home based care | Yes | Yes | Yes | Yes | Yes | |
| Patient therapy groups | Yes | Yes | Yes | Yes | Yes | |
| Physiotherapy /Physical therapy | Yes | Yes | Yes | Yes | Yes | |
| Provision of prosthesis | No | No | Yes | Yes | Yes | |
| Provision of aids such as clutches, eyeglasses etc. | No | No | Yes | Yes | Yes | |
| Occupational therapy | No | No | Yes | Yes | Yes | |
| Speech therapy | No | No | Yes | Yes | Yes | |
| Reconstructive surgery | No | No | No | No | Yes | |
| **Palliative** |  |  |  |  |  | |
| Psychosocial support | Yes | Yes | Yes | Yes | Yes | |
| Provide information and counselling on the role of families in the provision of palliative care | Yes | Yes | Yes | Yes | Yes | |
| Patient therapy groups | Yes | Yes | Yes | Yes | Yes | |
| Spiritual support | Yes | Yes | Yes | Yes | Yes | |
| Palliative care pain management | No | No | No | Yes | Yes | |
| Linkage to support groups eg treatment support groups | Yes | Yes | Yes | Yes | Yes | |
| Income generating activities through multi=sectoral approach | Yes | Yes | Yes | Yes | Yes | |
|  |  |  |  |  |  | |

## Injuries

Traumatic injury is a term which refers to physical injuries of sudden onset and severity which require immediate medical attention.

Table 41:prevention and management of injuries

| **Interventions by public health function** | **Interventions offered by level of service delivery** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Community** | **Health centre** | **District Hospital** | **Regional Hospital** | **Tertiary Hospital** |
| **Health Promotion Interventions** |  |  |  |  |  |
| Mass community awareness on injuries and prevention measures | Yes | Yes | Yes | Yes | Yes |
| Create community awareness on risk factors (e.g., Alcohol abuse, use of mobile phones while driving, not using seat belt; use of Zebra Crossing etc.) | Yes | Yes | Yes | Yes | Yes |
| Conduct health education on injuries and prevention measures | Yes | Yes | Yes | Yes | Yes |
| Educate communities to avoid traditional bonesetter(fracture) | Yes | Yes | Yes | Yes | Yes |
| Develop, distribute, and display IEC materials on injuries | Yes | Yes | Yes | Yes | Yes |
| Multisectoral approach in forming protection teams/ (Mahokela, auxiliary social workers, VHW, disciplinary teams etc. | Yes | Yes | Yes | Yes | Yes |
| Promote safe home environments and general environmental safety measures to prevent injuries | Yes | Yes | Yes | Yes | Yes |
| Promote workplace safety to prevent injuries | Yes | Yes | Yes | Yes | Yes |
| Advocate for multisectoral approach in prevention of injuries e.g., with road sector for road maintenance | Yes | Yes | Yes | Yes | Yes |
| Capacitate communities on first aid | Yes | Yes | Yes | Yes | Yes |
| Education on avoidance of harmful traditional practice e.g., use of “mulamu” stick | Yes | Yes | Yes | Yes | Yes |
| Raise awareness about the benefits of vitamin D supplements for improving and maintaining bone health | Yes | Yes | Yes | Yes | Yes |
| Promote Early health seeking behaviour | Yes | Yes | Yes | Yes | Yes |
| Capacity building of CHWs and health care providers on traumas and injuries (strengthen their knowledge on injuries/trauma | Yes | Yes | Yes | Yes | Yes |
| **Disease prevention interventions** |  |  |  |  |  |
| Facilitate development Implement occupational safety and health legislation to protect workers from work-related health problems | Yes | Yes | Yes | Yes | Yes |
| Inspection of workplaces | Yes | Yes | Yes | Yes | Yes |
| Education to communities/individuals on prevention of injuries eg observing roads signs; avoiding physical fights etc |  |  |  |  |  |
| Multi sectoral approach in prevention of injuries eg advocacy for Enforcement of traffic law /Road safety | Yes | Yes | Yes | Yes | Yes |
| Community education on safe environment | Yes | Yes | Yes | Yes | Yes |
| School health programs on injuries prevention | Yes | Yes | Yes | Yes | Yes |
| Data and reporting/operations research on injuries | Yes | Yes | Yes | Yes | Yes |
| **Curative interventions** |  |  |  |  |  |
| History and clinical examination such as checking for signs of injury including abrasion, contusion, laceration, fracture and head injury | No | No | No | Yes | Yes |
| Provision of Emergency Medical Services & provision of first aid | Yes | Yes | Yes | Yes | Yes |
| Stabilize patient before referral | Yes/first aid | Yes | Yes | Yes | Yes |
| Resuscitation | No | No | Yes | Yes | Yes |
| Management of pain | Yes | Yes | Yes | Yes | Yes |
| Fluid administration | No | Yes | Yes | Yes | Yes |
| Antibiotic therapy | No | Yes | Yes | Yes | Yes |
| Give Tetanus Toxoid vaccine | No | Yes | Yes | Yes | Yes |
| Admission | No | No | No | Yes | Yes |
| Advanced trauma life support (ATLS) management | No | No | No | Yes | Yes |
| Surgical interventions such as POP, internal or external fixation. | No | No | No | Yes | Yes |
| Medical management such as Pain management, antibiotics, Vaso pressors | No | No | No | Yes | Yes |
| Transfusions | No | No | No | Yes | Yes |
| Oxygen administration | No | Yes | Yes | Yes | Yes |
| Follow up and management of other complications such as infections | No | No | No | Yes | Yes |
| Referral to the next level | Yes | Yes | Yes | Yes | Yes |
| Surgical interventions/reconstructive surgery as indicated | No | No | Yes | Yes | Yes |
| Appropriate nursing care eg to prevent complications (bedsore, contractures | No | No | Yes | Yes | Yes |
| High care services | No | No | No | Yes | Yes |
| ICU services | No | No | No | No | Yes |
| Follow up | Yes | Yes | Yes | Yes | Yes |
| **Diagnostics /investigations** |  |  |  |  |  |
| Laboratory investigations eg blood tests | No | No | Yes | Yes | Yes |
| X-rays | No | No | Yes | Yes | Yes |
| CT-scan | No | No | No | Yes | Yes |
| MRI | No | No | No | No | Yes |
| **Rehabilitation interventions** |  |  |  |  |  |
| Provision of painkiller medication | Yes | Yes | Yes | Yes | Yes |
| Provision of medical aides when necessary | Yes | Yes | Yes | Yes | Yes |
| Provide rehabilitation support such as Neuromuscular and muscle-skeletal | No | Yes | Yes | Yes | Yes |
| Basic exercises | No | No | No | Yes | Yes |
| Occupational therapy  physiotherapy services | No | No | No | Yes | Yes |
| Psycho-social & spiritual support | No | No | No | No | Yes |
| Neuromuscular and muscle-skeletal rehabilitation support | No | No | No | No | Yes |
| Counsel patients and care givers, family members on complications. | No | No | No | No | Yes |
| **Palliative interventions** |  |  |  |  |  |
| Home based care | Yes | Yes | Yes | Yes | Yes |
| Psychosocial and spiritual support | Yes | Yes | Yes | Yes | Yes |
| Nutritional support | No | No | No | Yes | Yes |
| Counsel patients and care givers, family members on complications. | No | No | No | No | Yes |
|  |  |  |  |  |  |

### Gender Based Violence

Gender-Based violence refers to harmful acts directed at an individual based on their gender. It is rooted in gender inequality, the abuse of power and harmful norms.

Table 42:prevention and management of gender-based violence

| **Interventions by public health function** | **Interventions offered by level of service delivery** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Community** | **Health centre** | **District Hospital** | **Regional Hospital** | **Tertiary Hospital** |
| **Health Promotion Interventions** |  |  |  |  |  |
| Create awareness on prevention gender-based violence | Yes | Yes | Yes | Yes | Yes |
| Create awareness on harmful norms and cultural beliefs | Yes | Yes | Yes | Yes | Yes |
| Create awareness on implications of gender-based violence | Yes | Yes | Yes | Yes | Yes |
| Training of community-based distributers (include young people in the program) | Yes | Yes | Yes | Yes | Yes |
| Train gatekeepers to identify potential perpetrators of GBV | Yes | Yes | Yes | Yes | Yes |
| Train gatekeepers on the referral pathway to reduce stigma and discrimination to survivors | Yes | Yes | Yes | Yes | Yes |
| Conduct community dialogues on GBV issues with all structures at community level | Yes | Yes | Yes | Yes | Yes |
| Promote school health program with emphasis on prevention of school related gender-based violence | Yes | Yes | Yes | Yes | Yes |
| Promote family planning | No | Yes | Yes | Yes | Yes |
| Develop and distribute IEC materials | No | Yes | Yes | Yes | Yes |
| Training of all health care workers at all levels on the first line support of survivors | No | Yes | Yes | Yes | Yes |
| Mapping of social services in their catchment area | No | Yes | Yes | Yes | Yes |
| Advocacy for education especially for girls | Yes | Yes | Yes | Yes | Yes |
| Educate service providers on Forensic evidence | No | No | Yes | Yes | Yes |
| Raise awareness on survivor’s rights | No | No | Yes | Yes | Yes |
| Educate health care workers on Survivor centred approach the Guiding Principles | No | No | Yes | Yes | Yes |
| **Disease prevention interventions** |  |  |  |  |  |
| Orientate clients on human rights | Yes | Yes | Yes | Yes | Yes |
| Early identification of cases/clients | Yes | Yes | Yes | Yes | Yes |
| Provision of family planning services through CBDs | Yes | Yes | Yes | Yes | Yes |
| Orient clients on SRH / rights | No | Yes | Yes | Yes | Yes |
| Avail essential drugs for prevention of pregnancy HIV and STIs | No | Yes | Yes | Yes | Yes |
| Routine screening of STIs at all service delivery points including Outreach Services | No | Yes | Yes | Yes | Yes |
| Health talks on GBV prevention, treatment, referral and follow up | No | Yes | Yes | Yes | Yes |
| Education on benefits of reporting and pathways | No | Yes | Yes | Yes | Yes |
| Routine screening of STIs including through Outreach Services | Yes | Yes | Yes | Yes | Yes |
| Recording and reporting /operational research | Yes | Yes | Yes | Yes | Yes |
| **Curative interventions** |  |  |  |  |  |
| History taking and physical examination accordingly | No | Yes | Yes | Yes | Yes |
| Administer Post exposure prophylaxis for those who are eligible | No | Yes | Yes | Yes | Yes |
| Treat minor complications such as bleeding wound | No | Yes | Yes | Yes | Yes |
| Pain relieve with pain killers | Yes | Yes | Yes | Yes | Yes |
| Institute symptomatic treatment | No | Yes | Yes | Yes | Yes |
| Urgent referral of clients with linkage to the nearest health facility and other social services including safe homes and children’s homes | Yes | Yes | Yes | Yes | Yes |
| Post rape care | No | No | Yes | Yes | Yes |
| Admission if indicated | No | No | Yes | Yes | Yes |
| Surgical procedures if indicated | No | No | Yes | Yes | Yes |
| Investigations -Vaginal and anal swabs swab | No | No | Yes | Yes | Yes |
| Provide counselling about social services available (case management) | No | No | Yes | Yes | Yes |
| Follow up | Yes | Yes | Yes | Yes | Yes |
| **Rehabilitation interventions** |  |  |  |  |  |
| Encourage compliance and adherence with medical check ups | Yes | Yes | Yes | Yes | Yes |
| Refer the survivor to a specialized GBV agency provided with consent | Yes | Yes | Yes | Yes | Yes |
| Termination of pregnancy if indicated | No | No | Yes | Yes | Yes |
| **Palliative interventions** |  |  |  |  |  |
| Psychosocial support | Yes | Yes | Yes | Yes | Yes |
| Spiritual support | Yes | Yes | Yes | Yes | Yes |
| Provision of Counselling and psychosocial support | Yes | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |

### Burns and corrosion

A burn is**an injury to the skin or other organic tissue primarily caused by heat or due to radiation, radioactivity, electricity, friction or contact with chemicals.**

Table 43:prevention and management of burns and corrosion

| **Interventions by public health function** | **Interventions offered by level of service delivery** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Community** | **Health centre** | **District Hospital** | **Regional Hospital** | **Tertiary Hospital** |
| **Health Promotion Interventions** |  |  |  |  |  |
| Create Awareness on Safety measures that prevent burns & corrosion at home and community. | Yes | Yes | Yes | Yes | Yes |
| Raise awareness on danger of using unprescribed ointments | Yes | Yes | Yes | Yes | Yes |
| Health education on storage of flammables materials e.g .Paraffin | Yes | No | Yes | Yes | Yes |
| Advocacy for multi-sectoral approach in prevention of burns in communities | Yes | Yes | Yes | Yes | Yes |
| Distribution of IEC materials | Yes | Yes | Yes | Yes | Yes |
| Strengthening CHWs and health workers knowledge on burns including prevention measures through trainings | Yes | Yes | Yes | Yes | Yes |
| **Disease prevention interventions** |  |  |  |  |  |
| Guidance on measures to prevent burns in home settings e.g., Avoid storage of flammable and corrosive materials within children’s reach | Yes | Yes | Yes | Yes | Yes |
| Guidance on first- aid measures | Yes | Yes | Yes | Yes | Yes |
| Advice on availability of first aid materials and ensure availability at facility level | Yes | Yes | Yes | Yes | Yes |
| Advocacy for Availability of fire extinguisher @ home settings and facilities | Yes | Yes | Yes | Yes | Yes |
| Conduct community-based surveillance on cause of burns | Yes | Yes | Yes | Yes | Yes |
| **Curative interventions** |  |  |  |  |  |
| Comprehensive history, including the mechanism of burn /injury and physical assessment | No | Yes | Yes | Yes | Yes |
| Provide ABC life support (A-airway maintenance, B- Breathing and ventilation, C- Circulation and haemorrhage) | Yes (first aid before referral) | Yes | Yes | Yes | Yes |
| Pain relief -eg. through oral analgesics /pain killers | Yes | Yes | Yes | Yes | Yes |
| Management of burns as per guidelines | Yes | Yes | Yes | Yes | Yes |
| Treatment of infection with broad spectrum antibiotic | No | Yes | Yes | Yes | Yes |
| Fluid resuscitation | No | Yes | Yes | Yes | Yes |
| Fluid and electrolyte resuscitation | No | No | No | No | Yes |
| Appropriate nutritional therapy |  |  |  |  |  |
| Do thorough evaluation of burns under anaesthesia as may be indicated | No | No | Yes | Yes | Yes |
| Admissions as may be indicated | No | No | Yes | Yes | Yes |
| Minor surgical procedures | No | Yes | Yes | Yes | Yes |
| Wound dressings / Apply dressings | Yes (after referral back) | Yes | Yes | Yes | Yes |
| Referrals to next level for further management | Yes | Yes | Yes | Yes | Yes |
| Appropriate surgical intervention eg. skin grafting and debridement | No | No | Yes | Yes | Yes |
| High care | No | No | No | Yes | Yes |
| ICU services | No | No | No | No | Yes |
| Follow up | Yes | Yes | Yes | Yes | Yes |
| **Rehabilitation interventions** |  |  |  |  |  |
| physiotherapy to prevent contractures /physical exercises /CBR | Yes | Yes | Yes | Yes | Yes |
| Psycho -social and nutritional support for the family | Yes | Yes | Yes | Yes | Yes |
| Occupational therapy | No | Yes | Yes | Yes | Yes |
| Provision of orthotics and prosthesis | No | No | No | Yes | Yes |
| Reconstructive plastic surgery/plastic surgery | No | No | No | No | Yes |
| **Palliative interventions** |  |  |  |  |  |
| Psychosocial support | Yes | Yes | Yes | Yes | Yes |
| Spiritual support | Yes | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |

### Poisoning

Poisoning occurs**when people drink, eat, breathe, inject, or touch enough of a hazardous substance (poison) to cause illness or death. This section hence takes into consideration poisoning such as Food poisoning, fluids and gases, metals, alcohol and medicines poisoning**

Table 44:prevention and management of Poisoning

| **Interventions by public health function** | **Interventions offered by level of service delivery** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Community** | **Health centre** | **District Hospital** | **Regional Hospital** | **Tertiary Hospital** |
| **Health Promotion Interventions** |  |  |  |  |  |
| Awareness on poisoning | Yes | Yes | Yes | Yes | Yes |
| Distribution of IEC materials | Yes | Yes | Yes | Yes | Yes |
| Advocacy with relevant sector on safety measures e.g., labelling; transportation etc. |  |  |  |  |  |
| Strengthening CHWs and Health workers knowledge on poisoning -including prevention | Yes | Yes | Yes | Yes | Yes |
| **Disease prevention interventions** |  |  |  |  |  |
| Avoid placing poisonous substances within children’s reach | Yes | Yes | Yes | Yes | Yes |
| Avoid contact of harmful chemicals or their ingestion | Yes | Yes | Yes | Yes | Yes |
| Guidance on first aid in the event of ingestion –(e.g. not to induce vomiting: seek medical advice immediately and show the container to health care worker) | Yes | Yes | Yes | Yes | Yes |
| Ensure availability of first aid materials | Yes | Yes | Yes | Yes | Yes |
| **Curative interventions** |  |  |  |  |  |
| Taking history, mechanism of poisoning | No | Yes | Yes | Yes | Yes |
| Cautiously remove clothing that could be contaminated | No | Yes | Yes | Yes | Yes |
| Provide ABC life support (A-airway maintenance, B- Breathing and ventilation, C- Circulation and haemorrhage) | Yes (first aid and refer) | Yes | Yes | Yes | Yes |
| Admissions | No | No | Yes | Yes | Yes |
| Fluid replacement | No | Yes | Yes | Yes | Yes |
| Fluid resuscitation | No | No | Yes | Yes | Yes |
| Urgent Refer to next level of care | Yes | Yes | Yes | Yes | Yes |
| Nasogastric tube insertion | No | No | Yes | Yes | Yes |
| Gastric lavage, charcoal, or antidote administration | No | No | Yes | Yes | Yes |
| Manage in high care | No | No | No | Yes | Yes |
| Manage in ICU | No | No | No | No | Yes |
| Follow up | Yes | Yes | Yes | Yes | Yes |
| **Rehabilitation interventions** |  |  |  |  |  |
| Physiotherapy services | Yes | Yes | Yes | Yes | Yes |
| **Palliative interventions** |  |  |  |  |  |
| Psycho-social support for the family | Yes | Yes | Yes | Yes | Yes |
| Counselling support | Yes | Yes | Yes | Yes | Yes |
| Spiritual support | No | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |

## Neglected Tropical Diseases

Neglected tropical diseases (NTDs) are a diverse group of tropical infections which are common in low-income populations in developing regions of Africa, Asia, and America. They are caused by a variety of pathogens such as viruses, bacteria, protozoa and parasitic worms (helminths). **NTDs impair physical and cognitive development, contribute to illness and death, and also limits productivity. [[3]](#footnote-3)**

### Soil Transmitted Helminth

Table 45:prevention and management of Soil Transmitted Helminth

| **Interventions by public health function** | **Interventions offered by level of service delivery** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Community** | **Health centre** | **District Hospital** | **Regional Hospital** | **Tertiary Hospital** |
| **Health Promotion Interventions** |  |  |  |  |  |
| Health education to adults and communities on STH and prevention measures | Yes | Yes | Yes | Yes | Yes |
| Awareness creation on improving sanitation including proper waste disposal to reduce the risk of infection | Yes | Yes | Yes | Yes | Yes |
| Community education on personal hygiene including proper disposal of human waste | Yes | Yes | Yes | Yes | Yes |
| Community awareness on effective sewerage disposal systems | Yes | Yes | Yes | Yes | Yes |
| Multisectoral approach in addressing the risk factors of STH including improving sanitation, access to clean water, and income status of communities | Yes | Yes | Yes | Yes | Yes |
| Distribution of IEC materials | Yes | Yes | Yes | Yes | Yes |
| Community Health workers / Heathy workers training on STH including preventive measures | Yes | Yes | Yes | Yes | Yes |
| **Disease prevention interventions** |  |  |  |  |  |
| Promote proper cleaning and cooking of food | Yes | Yes | Yes | Yes | Yes |
| Promote proper hygiene practices e.g. including hand hygiene before handling food and after handling soil/manure | Yes | Yes | Yes | Yes | Yes |
| Discourage consuming of soil that may be contaminated with human faecal matter | Yes | Yes | Yes | Yes | Yes |
| Promote proper waste disposal e.g. Not passing stool in the soil or outdoors/ | Yes | Yes | Yes | Yes | Yes |
| Promoting good nutrition | Yes | Yes | Yes | Yes | Yes |
| **Curative interventions** |  |  |  |  |  |
| History and clinical examination | No | Yes | Yes | Yes | Yes |
| Identification of features/signs indicative of STH including history of passage of a live worm in faeces; abdominal pain while others may have cough; difficulty in breathing, or fever | Yes | Yes | Yes | Yes | Yes |
| Clinical diagnosis of STH; *history of passage of a live worm, in faeces; abdominal pain while others may have cough; difficulty in breathing, or fever* | No | Yes | Yes | Yes | Yes |
| Supportive therapy including relieve of any abdominal pain with painkillers; nutritional support (proper nutrition) | Yes | Yes | Yes | Yes | Yes |
| **Diagnostics**  • Microscopy –stool for identifying eggs e.g. ascaris and hookworm eggs | No | Yes | Yes | Yes | Yes |
| * blood tests for eosinophilia; for anaemia and nutritional deficiencies | No | No | Yes | Yes | Yes |
| * Imaging for heavily invested individuals, e.g. chest x ray to check lung involvement for hookworm | No | No | Yes | Yes | Yes |
| * Ultrasound to detect hepatobiliary or pancreatic involvement eg. in ascaris | No | No | Yes | Yes | Yes |
| Treatment using Anthelminthic medications such as albendazole and mebendazole, | No | Yes | Yes | Yes | Yes |
| Local cryotherapy to destroy the hookworms while still in the skin | No | No | Yes | Yes | Yes |
| Follow up and prevention of complications e.g., breathing complications | No | Yes | Yes | Yes | Yes |
| Management of anemia and its complications (use of iron supplements, vitamin C. Folic acid and vitamin B12 supplements | No (Refer) | Yes | Yes | Yes | Yes |
| Referral to next level for further management | Yes | Yes | Yes | Yes | Yes |
| Surgical interventions Eg worm extraction | No | No | No | Yes | Yes |
|  |  |  |  |  |  |

## Oral Health services

WHO defines **oral health** as “a state of being free from chronic mouth and facial pain, oral and throat cancer, oral infection and sores, periodontal (gum) **disease**, tooth decay, tooth loss, and other **diseases** and **disorders** that limit an individual’s capacity in biting, chewing, smiling, speaking, and psychosocial well-being.” The conditions defined here include dental caries; periodontal disease; ulcerative gingivitis; cancrum oris. The oral injuries have been aggregated together in management of injuries in another section on this document while oral cancers have also been aggregated as part of management of cancers.

### Dental caries

Dental caries (tooth decay) Dental caries result when plaque forms on the surface of a tooth and converts the free sugars contained in foods and drinks into acids that destroy the**tooth** over time.

Table 46:prevention and management of dental caries

| **Interventions by public health function** | **Interventions offered by level of service delivery** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Community** | **Health centre** | **District Hospital** | **Regional Hospital** | **Tertiary Hospital** |
| **Health Promotion Interventions** |  |  |  |  |  |
| Health education on dental caries including risk factors and prevention measures | Yes | Yes | Yes | Yes | Yes |
| Promotion of oral hygiene practices e.g. brushing and flossing |  |  |  |  |  |
| Promotion of healthy lifestyles; good nutrition; breastfeeding for infants | Yes | Yes | Yes | Yes | Yes |
| Provision of IEC material | Yes | Yes | Yes | Yes | Yes |
| Provision of oral hygiene aids (toothbrushes and toothpaste) | Yes | Yes | Yes | Yes | Yes |
| Strengthen CHWs/health workers care knowledge on dental cares through training | Yes | Yes | Yes | Yes | Yes |
| Multi sectoral approach in addressing socio-cultural determinants such as poor living conditions and safe water provision | Yes | Yes | Yes | Yes | Yes |
| Community dental outreach services | Yes | Yes | Yes | Yes | Yes |
| **Disease prevention interventions** |  |  |  |  |  |
| Screening for early diagnosis | Yes | Yes | Yes | Yes | Yes |
| Pit and fissure sealants application | Yes | Yes | Yes | Yes | Yes |
| Guidance on Oral hygiene through regular cleaning of teeth -tooth brushing and flossing | Yes | Yes | Yes | Yes | Yes |
| Guidance on healthy diets / Diet modification -use of low sugar diets | Yes | Yes | Yes | Yes | Yes |
| Use of fluoridated toothpastes | Yes | Yes | Yes | Yes | Yes |
| Provision of Atraumatic Restorative Treatment by a visiting oral Health personnel | No | Yes | Yes | Yes | Yes |
| Fluoride applications | No | No | Yes | Yes | Yes |
| Caries assessment | No | No | Yes | Yes | Yes |
| Diet analysis and counselling | No | No | Yes | Yes | Yes |
| **Curative interventions** |  |  |  |  |  |
| History and clinical examination /assessment | No | Yes | Yes | Yes | Yes |
| Recognition of signs of dental caries including pain, difficulty with eating and cavities in teeth | Yes | Yes | Yes | Yes | Yes |
| Treatment planning and Patient education on the treatment choice | No | Yes | Yes | Yes | Yes |
| Oral health instructions | No | Yes | Yes | Yes | Yes |
| Recognition of symptoms of complications of dental caries including swelling of the tissue around the tooth, tooth loss, and abscess formation | Yes | Yes | Yes | Yes | Yes |
| Pain relief with analgesics | Yes | Yes | Yes | Yes | Yes |
| Topical fluoride application | No | Yes | Yes | Yes | Yes |
| Pit and Fissure sealant application | No | Yes | Yes | Yes | Yes |
| Restoration of teeth | No | Yes | Yes | Yes | Yes |
| Tooth Extraction treatment under local anaesthesia | No | Yes | Yes | Yes | Yes |
| Investigations including dental x-rays (OPG: IOPA: Bite wings) | No | No | Yes | Yes | Yes |
| Provision of Atraumatic Restorative Treatment | No | No | Yes | Yes | Yes |
| Provision of Root canal treatment (Pulpectomy) for advanced dental caries | No | No | Yes | Yes | Yes |
| Pulpotomy (for milk teeth) | No | No | No | Yes | Yes |
| Extraction and restorations under general anaesthesia for patients with special needs | No | No | No | Yes | Yes |
| Referrals to the next level for further management | Yes | Yes | Yes | Yes | Yes |
| Follow up and management of any comp0lications | No | No | Yes | Yes | Yes |
| **Rehabilitation interventions** |  |  |  |  |  |
| Prosthodontic treatment/ e.g. dentures provision | No | No | No | Yes | Yes |
| Orthodontic treatment | No | No | No | No | Yes |
| **Palliative interventions** |  |  |  |  |  |
| Psychosocial support | Yes | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |

### Periodontal disease

Periodontal disease affects the tissues that surround and support the tooth. The disease is characterized by bleeding or swollen gums (gingivitis), pain and sometimes bad breath. In its more severe form, it can affect deeper tissues (periodontal ligaments) and bone (alveolar process) that holds teeth, causing them to become loose and sometimes fall out.

Table 47: prevention and management of periodontal disease

| **Interventions by public health function** | **Interventions offered by level of service delivery** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Community** | **Health centre** | **District Hospital** | **Regional Hospital** | Tertiary Hospital |
| **Health Promotion Interventions** |  |  |  |  |  |
| Community awareness on periodontal disease including risk factors and prevention measures | Yes | Yes | Yes | Yes | Yes |
| Provision of IEC material | Yes | Yes | Yes | Yes | Yes |
| Provision of oral hygiene aids (toothbrushes and toothpaste) | Yes | Yes | Yes | Yes | Yes |
| Health education on proper oral hygiene practices e.g. brushing and flossing | Yes | Yes | Yes | Yes | Yes |
| Multi sectoral approach in addressing socio- determinants such as poor living conditions | Yes | Yes | Yes | Yes | Yes |
| Community dental outreach services | Yes | yes | Yes | Yes | Yes |
| Strengthen CHWs and health workers knowledge on periodontal disease through training |  |  |  |  |  |
| **Disease prevention interventions** |  |  |  |  |  |
| Screening for early diagnosis | Yes | Yes | Yes | Yes | Yes |
| Home visits for home based oral care activities | Yes | Yes | Yes | Yes | Yes |
| Daily oral hygiene measures to prevent periodontal disease including brushing properly on a regular basis (at least twice daily) and flossing daily | Yes | Yes | Yes | Yes | Yes |
| Guidance on healthy lifestyles such as cessation of smoking; eating healthy balanced diets | Yes | Yes | Yes | Yes | Yes |
| Encourage routine dental check-ups | Yes | Yes | Yes | Yes | Yes |
| **Curative interventions** |  |  |  |  |  |
| History and Basic periodontal assessment | No | Yes | Yes | Yes | Yes |
| Full periodontal assessment | No | No | Yes | Yes | Yes |
| Recognition of symptoms of periodontal disease | Yes | Yes | Yes | Yes | Yes |
| Treatment planning and Patient education on the treatment choice | No | Yes | Yes | Yes | Yes |
| Relieve of pain with analgesics | Yes | Yes | Yes | Yes | Yes |
| Good oral hygiene instructions | Yes | Yes | Yes | Yes | Yes |
| Antibiotic therapy if indicated | No | Yes | Yes | Yes | Yes |
| Fluoride application | No | Yes | Yes | Yes | Yes |
| Extraction of severely mobile teeth | No | Yes | Yes | Yes | Yes |
| Scaling and polishing | No | Yes | Yes | Yes | Yes |
| I**nvestigations** – dental radiograph: : Periapical view and Orthopantomogram (OPG) | No | No | Yes | Yes | Yes |
| Root planning | No | No | Yes | Yes | Yes |
| Periodontal surgery limited to Local Anesthesia | No | No | Yes | Yes | Yes |
| Management of any underlying conditions such as diabetes | No | No | Yes | Yes | Yes |
| Periodontal surgery under General Anesthesia | No | No | No | Yes | Yes |
| **Rehabilitation interventions** |  |  |  |  |  |
| Provision of prosthesis e.g. dentures to replace lost teeth | No | No | Yes | Yes | Yes |
| **Palliative interventions** |  |  |  |  |  |
| Psychosocial support | Yes | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |

### Acute Necrotizing Ulcerative Gingivitis (ANUG)

Acute necrotizing ulcerative gingivitis (ANUG) is a severe painful form of gingivitis characterized by necrotizing inflammation of the marginal interdental gingiva with little or no bone involvement. The disease begins at the interdental papillae with a red and oedematous gingiva. Spontaneous bleeding and sore mouth are some of the presenting signs and symptoms. If untreated, acute necrotizing ulcerative gingivitis lesions may progress to the life threatening disease cancrum oris. Note that not all cases of ANUG develop into Noma.

Table 48:prevention and management of acute necrotising ulcerative gingivitis (ANUG)

| **Interventions by public health function** | **Interventions offered by level of service delivery** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Community** | **Health centre** | **District Hospital** | **Regional Hospital** | **Tertiary Hospital** |
| **Health Promotion Interventions** |  |  |  |  |  |
| Create Community awareness on oral health on ANUG including prevention measures | Yes | Yes | Yes | Yes | Yes |
| Health education on proper oral hygiene practices e.g. brushing and flossing; | Yes | Yes | Yes | Yes | Yes |
| Distribution oof IEC material | Yes | Yes | Yes | Yes | Yes |
| Provision of oral hygiene aids (toothbrushes and toothpaste) | Yes | Yes | Yes | Yes | Yes |
| Multi sectoral approach in addressing socio-cultural determinants such as poor living conditions | Yes | Yes | Yes | Yes | Yes |
| Community dental outreach service | Yes | Yes | Yes | Yes | Yes |
| Equip CHWs and HCWs with knowledge on ANUG | Yes | Yes | Yes | Yes | Yes |
| **Disease prevention interventions** |  |  |  |  |  |
| Regular screening for early diagnosis | Yes | Yes | Yes | Yes | Yes |
| Promote /guidance on Daily oral hygiene measures to prevent ANUG | Yes | Yes | Yes | Yes | Yes |
| Guidance on adoption of healthy lifestyles such as cessation of smoking and eating healthy balanced diets | Yes | Yes | Yes | Yes | Yes |
| Routine dental check-ups | Yes | Yes | yes | Yes | Yes |
| **Curative interventions** |  |  |  |  |  |
| Physical and clinical assessment | No | Yes | Yes | Yes | Yes |
| Basic periodontal examination | No | Yes | Yes | Yes | Yes |
| Treatment planning and Patient education on the treatment choice | No | Yes | Yes | Yes | Yes |
| Pain management | Yes | Yes | Yes | Yes | Yes |
| Gentle removal of the necrotized gingival tissue | No | Yes | Yes | Yes | Yes |
| Scaling and polishing | No | Yes | Yes | Yes | Yes |
| Use of antimicrobial mouthwash | Yes | Yes | Yes | Yes | Yes |
| Fluoride application | No | Yes | Yes | Yes | Yes |
| Refer to the next level for management | Yes | Yes | Yes | Yes | Yes |
| Diagnostics-Radiographs /dental x rays | No | No | Yes | Yes | Yes |
| Thorough debridement | No | No | Yes | Yes | Yes |
| Irrigation with diluted hydrogen peroxide | No | No | Yes | Yes | Yes |
| Refer for HIV testing services | No | Yes | Yes | Yes | Yes |
| **Rehabilitation interventions** |  |  |  |  |  |
| Follow ups on complications of ANUG | Yes | Yes | Yes | Yes | Yes |
| **Palliative interventions** |  |  |  |  |  |
| Psychosocial support to the patient, and family. | Yes | Yes | Yes | Yes | Yes |
| Home based oral care | Yes | Yes | Yes | yes | Yes |
|  |  |  |  |  |  |

### Noma/cancrum oris

Noma (also known as infectious oral necrosis or cancrum oris) is an infectious disease that develops in the mouth and spreads rapidly to the other parts of the face, destroying oro-facial tissues and neighbouring structures in its fulminating course. The disease presents in the form of an ulcer in the oral mucosa and bleeding gums with areas of necrosis. The cheeks, chin and lips then swell rapidly and develop dark grey areas which if untreated disintegrate to expose destroyed soft and hard tissues.

Table 49:prevention and management of NOMA/CANCRUM ORIS

| **Interventions by public health function** | **Interventions offered by level of service delivery** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Community** | **Health centre** | **District Hospital** | **Regional Hospital** | **Tertiary Hospital** |
| **Health Promotion Interventions** |  |  |  |  |  |
| Create community awareness on NOMA | Yes | Yes | Yes | Yes | Yes |
| Oral health education on risk factors of NOMA and on the importance of self-examination | Yes | Yes | Yes | Yes | Yes |
| Provision of IEC material | Yes | Yes | Yes | Yes | Yes |
| Provision of oral hygiene aids (toothbrushes and toothpaste) | Yes | Yes | Yes | Yes | Yes |
| Equip CHWs and Health care workers with skills on NOMA e.g., early detection and prevention measures | Yes | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |
| Multi sectoral approach in addressing socio-cultural determinants such as poor living conditions | Yes | Yes | Yes | Yes | Yes |
| Community dental outreach service | Yes | Yes | Yes | Yes | Yes |
| Advocacy for oral health including NOMA – eg through oral health days |  |  |  |  |  |
| **Disease prevention interventions** |  |  |  |  |  |
| Screening for early diagnosis/early detection | Yes | Yes | Yes | Yes | Yes |
| Guidance on Daily oral hygiene measures | Yes | Yes | Yes | Yes | Yes |
| Guidance on good nutrition for children /high protein diet | Yes | Yes | Yes | Yes | Yes |
| Administer vitamin A to all children | Yes | Yes | Yes | Yes | Yes |
| Guidance on healthy lifestyles eg cessation of smoking and eating healthy balanced diets | Yes | Yes | Yes | Yes | Yes |
| Multi-sectoral approach in maintaining community water sources free of contamination | Yes | Yes | Yes | Yes | Yes |
| Guidance on proper disposal of all human waste /garbage | Yes | Yes | Yes | Yes | Yes |
| Operational and Epidemiological research | Yes | Yes | Yes | Yes | Yes |
| **Curative interventions** |  |  |  |  |  |
| History and assessment | No | No | Yes | Yes | Yes |
| Pain management /with pain killers | Yes | Yes | Yes | Yes | Yes |
| Antibiotic therapy | No | Yes | Yes | Yes | Yes |
| Treatment planning and Patient education (depending on stage) | No | No | Yes | Yes | Yes |
| Provide antimicrobial mouthwash | No | No | Yes | Yes | Yes |
| Scaling and polishing & root planning | No | No | Yes | Yes | Yes |
| Fluid rehydration | No | No | Yes | Yes | Yes |
| Blood transfusion if indicated | No | No | Yes | Yes | Yes |
| Nutritional therapy / high protein diet | No | No | Yes | Yes | Yes |
| Debridement and irrigation by hydrogen peroxide of necrotic area and regular dressing | No | No | Yes | Yes | Yes |
| Reconstructive surgery | No | No | No | No | Yes |
| Referrals to the next level of care | Yes | Yes | Yes | Yes | Yes |
| **Rehabilitation interventions** |  |  |  |  |  |
| Follow ups | Yes | Yes | Yes | Yes | Yes |
| Prosthodontics | No | No | No | Yes | Yes |
| Reconstructive surgery | No | No | No | No | Yes |
| **Palliative interventions** |  |  |  |  |  |
| Psychosocial support to the patient and family | Yes | Yes | Yes | Yes | Yes |
| Home based oral care | Yes | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |

## Dermatology conditions -skin conditions

Table 50:Prevention and management of dermatology conditions /skin conditions

| **Skin diseases** | **Interventions offered at different levels of care** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Community level** | **Health centre** | **District Hospital** | **Regional hospital** | **National referral Hospital** |
| **Health promotion interventions** |  |  |  |  |  |
| Health education | Yes | Yes | Yes | Yes | Yes |
| Community awareness on skin diseases | Yes | Yes | Yes | Yes | Yes |
| Promote Intersectoral collaboration on sanitation, housing, and provision of adequate clean safe water | Yes | Yes | Yes | Yes | Yes |
| Provision of IEC materials on skin disease | Yes | Yes | Yes | Yes | Yes |
| Training community /health workers on common skin diseases | Yes | Yes | Yes | Yes | Yes |
| **Disease prevention interventions** |  |  |  |  |  |
| Guidance on personal and general hygiene | Yes | Yes | Yes | Yes | Yes |
| Guidance on avoidance of harmful practices | Yes | Yes | Yes | Yes | Yes |
| Advise on early health seeking behaviours | Yes | Yes | Yes | Yes | Yes |
| Contact tracing | Yes | Yes | Yes | Yes | Yes |
| **Curative interventions** |  |  |  |  |  |
| Early identification of skin disease | Yes | Yes | Yes | Yes | Yes |
| * History taking | No | Yes | Yes | Yes | Yes |
| * Clinical examination | No | Yes | Yes | Yes | Yes |
| **Diagnostic tests** |  |  |  |  |  |
| Blood culture and sensitivity | No | No | Yes | Yes | Yes |
| Biopsy | No | No | Yes | Yes | Yes |
| Haematological investigations | No | No | Yes | Yes | Yes |
| Microscopic skin scraping | No | No | Yes | Yes | Yes |
| Immune assay | No | No | No | Yes | Yes |
| **Treatment** |  |  |  |  |  |
| **Topical applications treatment** |  |  |  |  |  |
| Ointments | No | Yes | Yes | Yes | Yes |
| Creams | No | Yes | Yes | Yes | Yes |
| Lotions | No | Yes | Yes | Yes | Yes |
| Sprays | No | Yes | Yes | Yes | Yes |
| Cryotherapy pencils | No | No | Yes | Yes | Yes |
| Silver nitrate pencils | No | No | Yes | Yes | Yes |
| Intra-lesional treatment | No | No | No | Yes | Yes |
| **Systemic treatment** |  |  |  |  |  |
| Oral treatment | No | Yes | Yes | Yes | Yes |
| Intra-venous treatment | No | No | Yes | Yes | Yes |
| **Surgical treatment** |  |  |  |  |  |
| Excision | No | No | Yes | Yes | Yes |
| Curettage | No | No | Yes | Yes | Yes |
| Cryotherapy | No | No | No | Yes | Yes |
| **Radiotherapy** |  |  |  |  |  |
| Laser treatment | No | No | No | No | Yes |
| Puva (psoralen B) | No | No | No | No | Yes |
| Chemotherapy | No | No | No | No | Yes |
| **Treatment of cases and their contacts** | No | Yes | Yes | Yes | Yes |
| **Referral to the next level** | Yes | Yes | Yes | Yes | No |
| **Rehabilitation interventions** |  |  |  |  |  |
| Home based care e.g., for skin carcinomas | Yes | No | No | No | No |
| Nutritional support | Yes | Yes | Yes | Yes | Yes |
| Follow up | Yes | Yes | Yes | Yes | Yes |
| **Palliative Interventions** |  |  |  |  |  |
| Psychological and psychosocial support for patients and families | Yes | Yes | Yes | Yes | Yes |
| Support groups for people with skin diseases | Yes | Yes | Yes | Yes | Yes |
| Pain management | No | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |

## Eye Care and Prevention of Blindness

Table 51: Eye care; Prevention and management of blindness

| **Interventions by public health function** | **Interventions offered by level of service delivery** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Community** | **Health centre** | **District Hospital** | **Regional Hospital** | **Tertiary Hospital** |
| **Health Promotion Interventions** |  |  |  |  |  |
| Community awareness on eye care and prevention of vision impairment | Yes | Yes | Yes | Yes | Yes |
| Community health education including on personal hygiene and environmental sanitation | Yes | Yes | Yes | Yes | Yes |
| Outreach to communities – use different modalities such as audio-visual aid for sensitization | Yes | Yes | Yes | Yes | Yes |
| Sensitize the community on risk factors including on avoidance of hazardous traditional Medicines (eye scrappers) | Yes | Yes | Yes | Yes | Yes |
| Distribution of IEC materials: brochures, leaflet, booklets etc. | Yes | Yes | Yes | Yes | Yes |
| Strengthen health workers knowledge on eye care, disease prevention and management | Yes | Yes | Yes | Yes | Yes |
| **Disease prevention interventions** |  |  |  |  |  |
| Promoting Mass Drug Administration (MDA) to prevent sight associated infections such as trachoma | Yes | Yes | Yes | Yes | Yes |
| Discourage use traditional medicines for eye care | Yes | Yes | Yes | Yes | Yes |
| Screening for visual impairment | Yes | Yes | Yes | Yes | Yes |
| Assess for and manage associated conditions like diabetes, steroid use and hypertension | No | Yes | Yes | Yes | Yes |
| Conduct retina assessment at regular intervals for people with chronic medical illness such diabetes | No | No | Yes | Yes | Yes |
| **Curative interventions** |  |  |  |  |  |
| Assessment for vision impairment including sudden or rapidly progressing loss of vision and refractory errors | No | Yes | Yes | Yes | Yes |
| Reassess and follow up on -treatment compliance | No | Yes | Yes | Yes | Yes |
| Admit when necessary /inpatient services | No | No | Yes | Yes | Yes |
| Screen for refractory errors & provide eyeglasses | No | No | Yes | Yes | Yes |
| Provide specialized medical and surgical eye interventions | No | No | No | Yes | Yes |
| Management of any underlying conditions e.g., Diabetes; HTN, | No | Yes | Yes | Yes | Yes |
| Referral of patents to next level for management | Yes | Yes | Yes | Yes | Yes |
| High care Vision impairment management | No | No | No | No | Yes |
| **Rehabilitation interventions** |  |  |  |  |  |
| Provide movement aids/mobility aids e.g., for the blind | No | Yes | Yes | Yes | Yes |
| Linkage to eye rehabilitation centre (include eye care, psychological support, -orientation on mobility and training in daily activities) | No | No | Yes | Yes | Yes |
| Provide Eyeglasses /spectacles | No | No | Yes | Yes | Yes |
| **Palliative interventions** |  |  |  |  |  |
| Psycho-social & spiritual support | Yes | Yes | Yes | Yes | Yes |
| Provide close support in activities of daily living | Yes | Yes | Yes | Yes | Yes |
| Continuous Counselling for caregivers, family members and children to support people with sight problem | No | No | Yes | Yes | Yes |
|  |  |  |  |  |  |

## Ear, Nose and Throat

### Otitis media

Otitis media occurs as a result of**an initial episode of acute otitis media** and is characterized by a persistent discharge from the middle ear through a tympanic perforation.

Table 52: Prevention and management of Otitis media

| **Interventions by public health function** | **Interventions offered by level of service delivery** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Community** | **Health centre** | **District Hospital** | **Regional Hospital** | **Tertiary Hospital** |
| **Health Promotion Interventions** |  |  |  |  |  |
| Creation of awareness on otitis media including prevention measures | Yes | Yes | Yes | Yes | Yes |
| Distribution of IEC materials | Yes | Yes | Yes | Yes | Yes |
| Health workers training on otitis media, preventive measures and management | Yes (CHWs) | Yes | Yes | Yes | Yes |
| **Disease prevention interventions** |  |  |  |  |  |
| Breast-feeding for primary prevention at infancy | Yes | Yes | Yes | Yes | Yes |
| Proper/healthy nutrition for children | Yes | Yes | Yes | Yes | Yes |
| Eliminate household tobacco smoking, / second-hand smoking | Yes | Yes | Yes | Yes | Yes |
| Control allergies/ reduce exposure to allergens | Yes | Yes | Yes | Yes | Yes |
| Prevent colds. Reduce child's exposure to colds | Yes | Yes | Yes | Yes | Yes |
| Hand hygiene for the caregivers and the children | Yes | Yes | Yes | Yes | Yes |
| Seek early treatment for adenoids | Yes | Yes | Yes | Yes | Yes |
| vaccinations. For the child influenza vaccine; pneumococcal, meningitis and other vaccines too. | Yes (through outreaches | Yes | Yes | Yes | Yes |
| Antibiotic prophylaxis | No | No | Yes | Yes | Yes |
| **Curative interventions** |  |  |  |  |  |
| Recognition of symptoms indicative of Otitis media in children including Crying, inability to sleep, irritability, fever, and restlessness; The child keeps pulling the ear. (Older child will complain of ear-ache.) and discharge form the ear | Yes | Yes | Yes | Yes | Yes |
| History and clinical examination | No | Yes | Yes | Yes | Yes |
| Antibiotic therapy | No | Yes | Yes | Yes | Yes |
| Use of anti-inflammatory drugs to reduce inflammation | No | Yes | Yes | Yes | yes |
| Vitamin C to boost and reinforce immune mechanism. | No | Yes | Yes | Yes | Yes |
| Zinc supplements to reduce recurrent ear infections | No | Yes | Yes | Yes | Yes |
| Relieve pain with analgesics such as ibuprofen; paracetamol  *or home remedies such as pressing warm water bottle or a hot bag of salt against the ear at community level.* | Yes | Yes | Yes | Yes | Yes |
| Relieve fever with antipyretics eg paracetamol or /sponging | Yes | Yes | Yes | Yes | Yes |
| Diagnostic tests -pneumatic otoscope; tympanometry; tympanocentesis | No | No | Yes | Yes | Yes |
| Administration of Oral or nasal steroids if the cause is due to allergies | No | No | Yes | Yes | Yes |
| Surgical intervention – “myringotomy,” surgically open the eardrum to help relieve pressure. | No | No | Yes | Yes | Yes |
| Follow up, prevention and management of any complications such as rupturing of the eardrum and everlasting hearing loss. | No (refer) | No (refer) | Yes | Yes | Yes |
| Proper nutrition for the child | Yes | Yes | Yes | Yes | Yes |
| Referral to a health facility/hospital for further management | Yes | Yes | Yes | Yes | Yes |
| Follow up |  |  |  |  |  |
| **Rehabilitation interventions** |  |  |  |  |  |
| Audiological follow up of complicated conditions. | No | Yes | Yes | Yes | Yes |
| Linkage to audiology | No | No | No | No | Yes |
| Provision of hearing aids | No | No | No | No | Yes |
| **Palliative interventions** |  |  |  |  |  |
| Counselling and support for families of affected children. | No | Yes | Yes | Yes | Yes |
| Psychological support to care givers and children | No | No | Yes | Yes | Yes |
|  |  |  |  |  |  |

## Foodborne And Waterborne Diseases

Foodborne and waterborne diseases are illnesses caused by bacteria that are present in contaminated food and water sources. Foodborne diseases often take the form of "food poisoning," with vomiting and diarrhoea. Waterborne diseases can manifest as either food poisoning or pneumonia, depending on the bacteria involved. Generally, they are characterized by diarrhoea, nausea, vomiting with or without fever, abdominal pain, headache and/or body malaise.

Table 53 : Prevention and management of foodborne and waterborne diseases

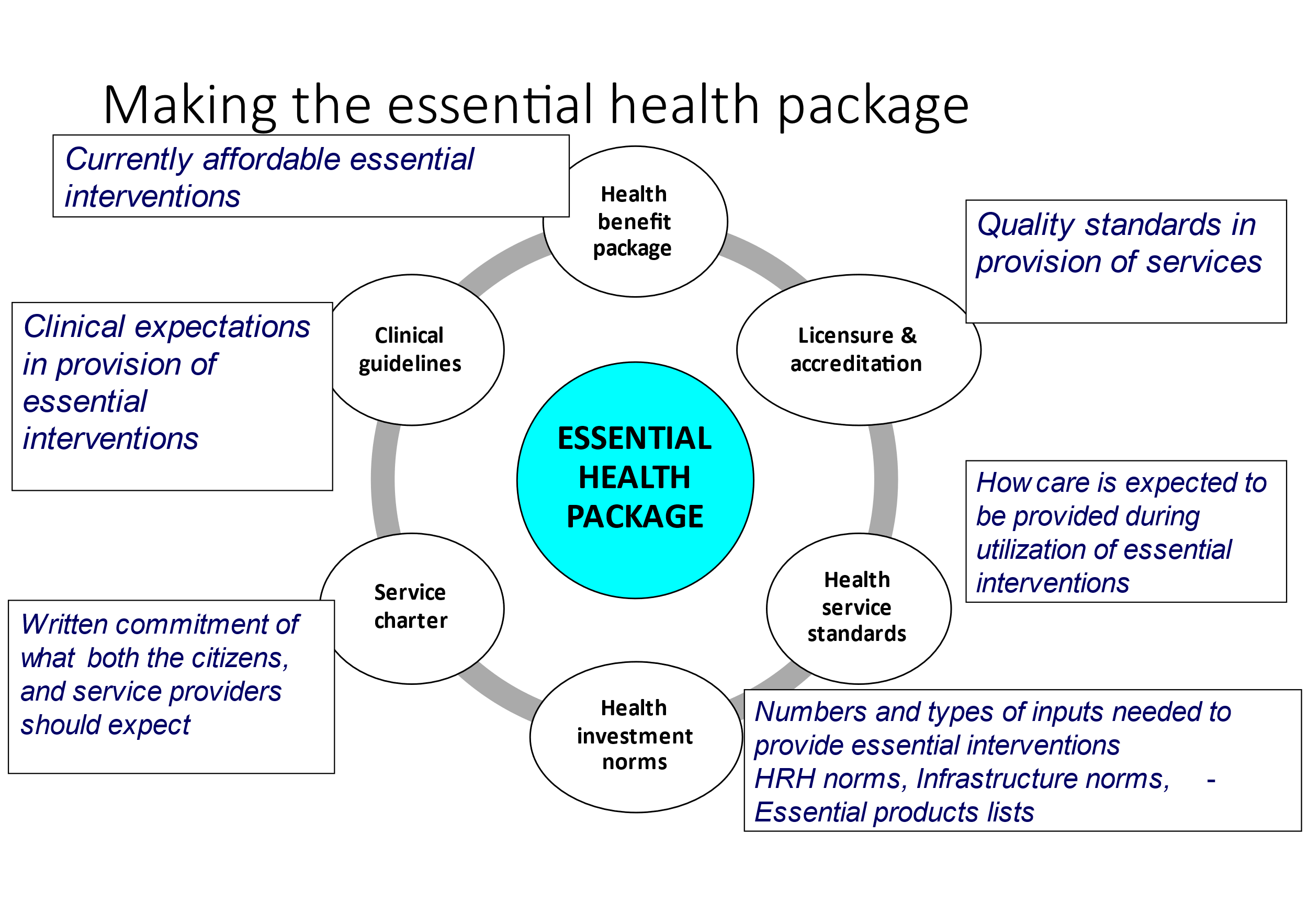
| **Interventions by public health function** | **Interventions offered by level of service delivery** | | | | |
| --- | --- | --- | --- | --- | --- |
| **Community** | **Health centre** | **District Hospital** | **Regional Hospital** | **Tertiary Hospital** |
| **Health Promotion Interventions** |  |  |  |  |  |
| Health Education on food and waterborne diseases | Yes | Yes | Yes | Yes | Yes |
| Create awareness on importance of hygiene practices | Yes | Yes | Yes | Yes | Yes |
| Create awareness on 5 keys to safer foods | Yes | Yes | Yes | Yes | Yes |
| Advocate for Multisectoral approach to food hygiene and safety issues | Yes | Yes | Yes | Yes | Yes |
| Education on food hygiene and quality | Yes | Yes | Yes | Yes | Yes |
| Distribution of IEC materials | Yes | Yes | Yes | Yes | Yes |
| Train of Health workers on food and waterborne diseases | Yes (CHWs) | Yes | Yes | Yes | Yes |
| **Disease prevention interventions** |  |  |  |  |  |
| Promote 5 keys to safer | Yes | Yes | Yes | Yes | Yes |
| Food Inspection: food businesses, schools, FMU stores, Ports of entry, markets, slaughterhouses | Yes | Yes | Yes | Yes | Yes |
| Screening for Food handlers for communicable diseases and monitoring of registered food handlers | Yes | Yes | Yes | Yes | Yes |
| Implementation of food safety management system such as HACCP in all food establishments | Yes | Yes | Yes | Yes | Yes |
| Promote Proper solid and liquid waste and pest’s management around food and water establishment | Yes | Yes | Yes | Yes | Yes |
| Take food and water samples for laboratory analysis | Yes | Yes | Yes | Yes | Yes |
| Operational Research in Food Hygiene and safety | Yes | Yes | Yes | Yes | Yes |
| **Curative interventions** |  |  |  |  |  |
| History and clinical examination | No | Yes | Yes | Yes | Yes |
| Recognition of signs and symptoms of food/water borne diseases | Yes | Yes | Yes | Yes | Yes |
| Administer ORS | Yes | Yes | Yes | Yes | Yes |
| Management of the food/water borne diseases | No | Yes | Yes | Yes | Yes |
| Management of dehydration | No | Yes | Yes | Yes | Yes |
| Monitor for worsening of condition | Yes | Yes | Yes | Yes | Yes |
| Immediate transfer to the hospital depending on the condition | Yes | Yes | Yes | Yes | Yes |
| Diagnostic tests: examination of stool and blood tests | No | Yes | Yes | Yes | Yes |
| High care services | No | No | No | Yes | Yes |
| Intensive care services | No | No | No | No | Yes |
| **Palliative interventions** |  |  |  |  |  |
| Psychosocial support | Yes | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |

#### 

# Chapter 5: Implementation for the EHP

Implementation of the EHP requires availability of requisite resources. Additionally, successful implementation calls for definition of relevant standards and guidelines in the sector as summarized in the figure below

Figure 1: Operationalizing EHP (source WHO)



**Health Systems Investments**

For successful implementation of the EHP, there is need for the country to ensure availability of appropriate capacity of the different components of the health systems across the country. This will not only guarantee quality of health services but also guarantee progress in coverage of essential healthy services. Key among priority pillars of health systems strengthening of attention include Leadership and governance, Service delivery, health workforce, Health Products and Technology, Health Information and health infrastructure. The EHP therefore forms a good basis for definition of the requisite norms and standards for these health systems inputs. This will guide the sector in what to invest in for better progress towards achieving the health goals.

**Health service standards**

The EHP is also critical in informing the health service standards for all the different levels of the service delivery systems regardless of ownership. This is in addition to informing the licensure and accreditation of the service delivery points. All this is towards improving the quality of services provided to the people of Lesotho

**Clinical guidelines**

The implementation of EHP goes hand in hand with other guidelines including clinical guidelines for the various levels of service delivery. This EHP therefore shall also inform the development of the clinical guidelines in for the various conditions and for the different service delivery points

**Management support to the Implementation of the Essential Health Package**

The EHP represents the package of services that the health sector strives to make available for the people. To ensure it achieves its objective of availing, delivering affordable, equitable and quality health service the following support factors are critical in addition to the ones described above:

**Stakeholders’ collaboration/partners coordination**

Different stakeholders in the health sector, Private partnership and other ministries need to be involved with their roles incorporated in the implementation process for collaborative efforts and to increase awareness of the EHP. Better coordination of stakeholders working in the health sector to avoid parallel activities and ensure synergy and efficiency. Synergy in carrying out activities such as supportive supervision; feedback meetings; provision of necessary guidelines is imperative. Cross-sectoral collaboration to improve access to utilities, infrastructure, roads etc. must be fostered.

**Referrals**.

An effective health referral system enhances delivery of quality services and reduces operational inefficiencies at all levels of care. This is to provide better linkage between the primary, Provider networks, secondary and tertiary hospitals for effective health services delivery.

Therefore, referral guidelines to support the EHP and provide direction on offering effective management of referral services to the population will need to be established.

# Chapter 6: Financial Implications

The Ministry of Health is mandated to ensure productive life, access to affordable and sustainable quality health services to all people living in Lesotho (NHSP, 2019). As part of its Sustainable Development Goal targets, the ministry is aiming to achieve universal health coverage by 2030. This means providing access to quality essential health services; safe, effective, and affordable essential medicines and vaccines; and protection from financial risk. An essential package of health services provided to citizens in an equitable manner is key to achieving health and financial protection goals.

**Costing of the EHSP**

Costing estimate of the Lesotho essential health service package is based on the estimate made for the recent National Health Strategic Plan (2019-2023). The cost estimate is based on an inputs-based methodology as stipulated in the One-Health Tool. The Ministry of Health specified the required activity inputs and price estimates as applied to the present context. The burden of disease, clinical guidelines and practices, service provision modalities and target coverages by 2030 served as the basis for the yearly cost estimates. The health system strengthening investments considered in the NHSP 2018 - 2023 were accounted for the EHSP costing estimates. The cost of each component is driven by the availability of functional inputs (e.g., trained human resources for health, or equipped health facilities), as well as program management costs, including, supervision, monitoring, and advocacy.

The three NHSP Policy Scenarios have been modelled with estimated costs of responding to the causes of mortality, and the overall cost of implementing the strategic plan. The Moderate Scenario was recommended to be applied and is expected to yield the desired health impact at **mean per capita of $111.**

**Fiscal space analysis**

A fiscal space analysis for the years 2020–2030 for the EHSP was conducted to predict the expected available resources. In the fiscal space, all potential sources of resources for health were explored by comparing the estimated resource needs with projections of the resources available.

For the Lesotho fiscal space analysis, an in-depth review of the five dimensions in the conceptual framework developed by the World Bank served as the basis (Heller, 2006). These dimensions include:

1. Macroeconomy: how will macroeconomic conditions affect resource levels for health? Including external debt return.
2. Re-prioritization of the health sector: how much fiscal space could be generated by increasing the health sector’s share of the government budget?
3. Health sector-specific resources: can additional taxes and other revenue sources be implemented and earmarked for health? ‘Innovative’ health financing strategies?
4. Foreign aid: how will future foreign aid flows affect the resource envelope for health?
5. Efficiency gains: can the fiscal space for health be increased through more efficient use of current and future financial resources?

The fiscal space analysis was performed based on the current proposed reforms to the health financing structure and discussions on innovative funding options/sources with the Ministry of Finance and Economics Cooperation (MOFEC).

# Chapter 7: Monitoring & Evaluation of EHP Implementation

The monitoring and review of the EHP implementation shall be carried out informed by the overall M&E framework of the health sector. The EHP represents the outcomes the health sector strives to attain, for achievement of the overall goals. Representative indicators shall be identified, to monitor progress towards attaining Universal Health Coverage with the EHP services. As such the monitoring shall be aligned to the existing monitoring and evaluation processes in the health sector.

**Performance monitoring and review processes**

The routine performance monitoring in the health sector which outlines the performance against the set objectives in the health sector plans shall be one of the ways through which implementation of the EHP shall be done. Implementation of the EHP is expected to lead to better health outputs and outcomes, therefore routine performance monitoring and review is a sure way of monitoring implementation of EHP.

**Annual Joint Review**

This is a process where the health sector documents progress and results against the implementation of the annual operational plan using sector key performance indicators and targets set in the strategic plan. The annual report is a comprehensive analytic report following the Ouagadougou framework in analyzing the performance of the health sector. It is expected that performance against implementation of the EHP shall also be part of the annual review process.

**EHP Evaluations**

Evaluations will be undertaken to determine the extent to which the aspirations and priorities as set in the EHP have been achieved. This shall include a mid-term and an end term evaluation.

**Mid-Term Evaluation**

The purpose of the mid-term evaluation will be to evaluate/review the progress of implementation, identify and propose adjustment to the EHP as required. The Mid Term evaluation specific objectives will include:

1. Assess progress in meeting the implementation of the EHP
2. Review appropriateness of the existing inputs towards supporting EHP implementation with a view to adjusting accordingly depending on progress e.g., increasing availability of Human resources for health.

**End Term Evaluation**

The End Term evaluation will be undertaken, and the findings and recommendations will be used to inform formulation of the next EHP. The evaluation will determine the overall progress on implementation. The resourcing of the EHP including financial and other resources; document lessons learned and recommendations to inform formulation of the next EHP.

**Indicators for Monitoring progress on implementation of EHP**

The following section provides some of the indicators for monitoring and evaluating progress on the implementation of the EHP. As elaborated earlier, these will be linked to the overall health sector monitoring and evaluation framework

Table 54 : Indicators for monitoring progress of ehp implementation

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **INDICATORS** | **Baseline** | **Target**  **(EHP)** | **Target**  **(SDG)** | **Source of data** |
|  | **2021** |  | **2030** |  |
| **IMPACT INDICATORS** |  |  |  |  |
| Life Expectancy at birth (male / female) | 59.5=F  51.7=M |  |  | 2016 Population and Housing Census |
| Per capita Income (USD) |  |  |  | Survey e.g., economic survey |
| Neonatal mortality rate (NMR) | 36/1000 live births | 31/1000 live births | 12/1000 Live births | Survey e.g., 2016 Population and Housing Census, 2018 MICS |
| Infant Mortality Rate (IMR) | 62/1000 live births | 24/1000 live births |  |
| U5 mortality rate (U5MR) | 76/1000 live births | 65/1000 live births | 25/1000 live births |
| Children aged <5 years (0-59m) stunted (%) | 34.5% | 23.3% |  |
| Children aged <5 years (0-59m) underweight (%) | 10.5% |  |  |
| Children aged <5 years (0-59m) wasted (%) | 2.1% | 2% |  |
| Maternal Mortality Ratio (MMR per 100,000 live births) | 618/100000 live births | 567/100000 live births | 70/100,000 live births |
| Total Fertility Rate (TFR) | 2.7 |  |  |
| **OUTCOME INDICATORS** |  |  |  |  |
| % proportion of births occurring in a health facility | 58% |  |  | Routine HMIS data and survey |
| Proportion of births attended by skilled attendants | 86.6% | 95% |  | Survey e.g., LDHS WHO Global Health Observatory database |
| % of children 12-23 months old who are fully immunized | 68.8% | 90% |  | Routine data |
| % pregnant women who have at least four ANC visits | 76.6% | 85% |  | Routine data (HMIS) and Surveys |
| Contraceptive prevalence rate | 64.9% | 80% |  | Survey |
| Unmet need for family planning (%) | 16% | 8% |  | Survey |
| HIV Incidence Rate | 1.1% |  |  | Survey e.g., LEPHIA |
| HIV prevalence rate | 23% |  |  | Survey e.g., LEPHIA |
| % persons with HIV receiving ART therapy | 83% | 95% |  | Routine |
| TB treatment success rate (%) | 77% | 74% |  | Routine data |
| Prevalence of raised fasting blood glucose | 6.3% |  |  | Survey -STEPs |
| Prevalence of raised Blood pressure among adults |  |  |  | Survey -STEPs |
| Deaths due to injuries (trauma and road traffic injuries) | 218 |  |  | 2019 Road Safety Admin Records |
| **INPUT INDICATORS** |  |  |  |  |
| **Health Financing** |  |  |  |  |
| General government expenditure on health as a percentage of total expenditure on health |  |  |  | /GOL expenditure reports /economic surveys |
| General government expenditure on health as a percentage of total government expenditure | 12% | 16% |  | GOL expenditure reports /economic surveys |
| Out-of-pocket expenditure |  |  |  | Household surveys |
| Per capita GOL expenditure on health | 10.6% | 20% |  | Household surveys |
| **Human resources for Health** |  |  |  |  |
| Density of village health workers (per 10 000 population) |  |  |  | Administrative data |
| Doctor / population Ratio (per 100,000) |  |  |  | Administrative data |
| Nurse / population Ratio (per 100,000) |  |  |  | Administrative data |
| **Health commodities** |  |  |  |  |
| Availability of essential medicines in the health facilities |  |  |  | Routine data /surveys |
| Availability of non-pharmaceutical products in the health facilities |  |  |  | Routine data /surveys |
| Proportion of the population with access to affordable medicines |  |  |  | Routine data /surveys |
| **Health infrastructure** |  |  |  |  |
| Health facilities Density (per 100 000 population) |  |  |  | Administrative data |
| Hospital beds density (per 10 000 population) |  |  |  | Administrative data |
| **Health Information System** |  |  |  |  |
| Completeness of reporting by facilities | 85% | 100% |  | Routine data/HMIS data |
| Timeliness of reporting by health facilities | 72% | 100% |  | Routine data /HMIS data |
| **Leadership and Governance** |  |  |  |  |
| Proportion of health facilities with functional\*\* Governance structures. (board/committee meetings) | 100% | 100% |  | Routine data |
| *\*\* Functional : - holding at least 80% of planned meetings and with evidence of using information for timely decisions making* |  | | | |

# Bibliography

1. El‐Jardali F, Fadlallah R, Daouk A, Rizk R, Hemadi N, El Kebbi O, Farha A, Akl EA. Barriers and facilitators to implementation of essential health benefits package within primary health care settings in low‐income and middle-income countries: A systematic review. Int J Health Plann Mgmt. 2019; 34:15–41
2. Essential Health Packages from other countries –Liberia; Kenya
3. Glassman A, Giedion U, Sakuma Y, Smith PC. (2016). Defining a Health Benefits Package: What Are the Necessary Processes? Health Systems & Reform, 2:1, 39-50, DOI: 10.1080/23288604.2016.1124171
4. Global Burden of Disease Estimates
5. Akachi Y and Kruk ME. 2017. Quality of care: measuring a neglected driver of improved health. Policy & practice. Bull World Health Organ 95:465–472.
6. Ministry of Health: Annual Joint review report 2017
7. Ministry of Health: Annual Joint review report 2018
8. Ministry of Health: Health sector Human Resource Norms and Standards
9. Ministry of Health: Lesotho National Health Policy 2011
10. Ministry of Health: Monitoring and Evaluation Plan
11. Ministry of Health: The Health Sector Strategic Plan 2012/13-2016/17
12. Ministry of Health: The Lesotho Essential Health Package
13. Ministry of Health: The Lesotho National Health Strategic plan 2018/19-2022/23
14. Ministry of Health; Health sector Infrastructure Norms and Standards
15. Ministry of Health; National Health Policy 2017
16. Mueller DH, Lungu D, Acharya A, Palmer N (2011) Constraints to Implementing the Essential Health Package in Malawi. PLoS ONE 6(6): e20741. doi: 10.1371/journal.pone.0020741
17. Teerawattananon Y, Luz A, Kanchanachitra C, Tantivess S. Prince Mahidol Award Conference S. Role of priority setting in implementing universal health coverage. BMJ. 2016;532: i244.
18. Waddington C. 2013. Essential health packages: What are they for? What do they change? HLSP Institute. Available at: <file:///C:/Users/avortrig/Downloads/2013%20Essential%20health%20packages%20(4).pdf>
19. MFDP (2020)

Peter S. Heller (2006), The prospect of Creating ‘Fiscal Space’ for the Health Sector. Health Policy and Planning. 21(2): 75-79.

# Annexes 1: Summary of interventions by major disease groupings

While each level of service delivery, including community level has a role to play in management of the identified conditions as indicated in the previous chapters; the tables highlight the predominant levels where intervention categories are mainly applicable. The section provides a summary of interventions categories drawn from interventions for each of the identified conditions, by public health function and by level of service delivery.

**Maternal and new-born conditions**

|  |  |
| --- | --- |
| **Maternal and New-born care** | |
| **Intervention’s category** | **Level of service delivery** |
| Awareness creation on maternal and new-born conditions/and services | Community/ Health centre/ District/regional/tertiary hospitals |
| IEC | Community/ Health centre/ District/regional/tertiary hospitals |
| Health education | Community/ Health centre/ District/regional/tertiary hospitals |
| Capacity building -strengthen knowledge on maternal and new-born conditions among health workforce | Community/ Health centre/ District/regional/tertiary hospitals |
| ANC services | N/b Promotion at Community level/  Health centre/District/Regional /tertiary level |
| Maternal assessment | Health centre/ District/regional/tertiary hospitals |
| Counselling services | Health centre/ District/regional/tertiary hospitals |
| Family planning | Health centre/ District/regional/tertiary hospitals |
| STI screening | Health centre/ District/regional/tertiary hospitals |
| Screening for diabetes | Health centre/District/regional /Tertiary hospital |
| PMTCT | Health centre/ District/regional/tertiary hospitals |
| Supplementation e.g. vitamin A; Folic | Health centre/ District/regional/tertiary hospitals |
| Foetal assessments | Health centre/ District/regional/tertiary hospitals |
| Maternal vaccination--Td | Health centre/ District/regional/tertiary hospitals |
| Management of acute maternal infections | District/regional /Tertiary hospital |
| Labour and delivery care | Health centre/ District/regional/tertiary hospitals |
| BEmoNC | Health centre/ District/regional/tertiary hospitals |
| Post -partum care | Health centre/ District/regional/tertiary hospitals |
| Maternal nutrition | Health centre/ District/regional/tertiary hospitals |
| Management of STIs including HIV | Health centre/ District/regional/tertiary hospitals |
| Management of pregnancy diabetes | District/regional /Tertiary hospital |
| Post arbortal care | District/regional /Tertiary hospital |
| Management of infertility | District/regional /Tertiary hospital |
| Management of obstetric fistulae | District/regional /Tertiary hospital |
| Pre-conceptual care services | District/regional /Tertiary hospital |
| Management of cancers eg cervical cancer | District/regional /Tertiary hospital |
| Essential New-born care | Health centre/ District/regional/tertiary hospitals |
| Management of prematurity | District/Regional /tertiary hospitals |
| Management of birth asphyxia | District/Regional /tertiary hospitals |
| Management of neonatal sepsis | District/Regional /tertiary hospitals |
| Management of neonatal jaundice | District/Regional /tertiary hospitals |
| Management of congenital conditions | District/Regional /tertiary hospitals |
| Management of other neonatal conditions-haematological; cardiac; endocrine; orthopaedic; respiratory conditions | District/Regional /tertiary hospitals |
| **Diagnostics** | |
| Blood tests | Health centre/ District/regional/tertiary hospitals |
| Haemoglobin | Health centre/ District/regional/tertiary hospitals |
| Blood grouping | District/regional/tertiary hospitals |
| Urine tests | District/regional/tertiary hospitals |
| Screening for STIs/HIV/TB/syphilis/Anaemia | District/regional/tertiary hospitals |
| Ultrasound | District/regional/tertiary hospitals |
| Random blood sugars | District/regional/tertiary hospitals |
| Diagnosis and management of maternal conditions | District/regional/tertiary hospitals |
| Blood transfusions | District/regional/tertiary hospitals |
| Medical surgical care | District/regional/tertiary hospitals |
| Timely referrals | Community /HC/District/regional/tertiary hospitals |
| Admissions | District/regional/tertiary hospitals |
| High care | Regional /tertiary hospitals |
| ICU care | Tertiary hospital |
| Death surveillance /maternal deaths audits | Community /HC/District/regional/tertiary hospitals |
| Psychosocial welfare interventions | Health centre/ District/regional/tertiary hospitals |
| **Child health services** |  |
| Awareness creation on childhood conditions and services | Community /HC/District/regional/tertiary hospitals |
| IEC | Community /HC/District/regional/tertiary hospitals |
| Health education | Community /HC/District/regional/tertiary hospitals |
| Promotion of hygiene practices | Community /HC/District/regional/tertiary hospitals |
| Capacity strengthening on childhood conditions among health workers | Community /HC/District/regional/tertiary hospitals |
| Immunization | HC/District/regional/tertiary hospitals |
| * BCG | HC/District/regional/tertiary hospitals |
| * Polio | HC/District/regional/tertiary hospitals |
| * Pentavalent | HC/District/regional/tertiary hospitals |
| * Pneumococcal | HC/District/regional/tertiary hospitals |
| * Measles /rubella | HC/District/regional/tertiary hospitals |
| * Rota | HC/District/regional/tertiary hospitals |
| Integrated management of childhood illnesses (IMCI) | HC/District/regional/tertiary hospitals |
| Prevention and control of ARIs | Community /HC/District/regional/tertiary hospitals |
| Prevention and control of diarrhoea | Community /HC/District/regional/tertiary hospitals |
| Growth monitoring | Community /HC/District/regional/tertiary hospitals |
| Nutrition assessments | Community /HC/District/regional/tertiary hospitals |
| Micronutriment supplementation e.g. Vitamin A | Community /HC/District/regional/tertiary hospitals |
| De-worming | Community /HC/District/regional/tertiary hospitals |
| Infant and Young child feeding | Community /HC/District/regional/tertiary hospitals |
| Identification and treatment of childhood malnutrition | HC/District/regional/tertiary hospitals |
| Timely referrals | Community /HC/District/regional/tertiary hospitals |
| **Adolescent sexual reproductive health** |  |
| Awareness creation | Community /HC/District/regional/tertiary hospitals |
| IEC/BCC | Community /HC/District/regional/tertiary hospitals |
| Youth friendly services | HC/District/regional/tertiary hospitals |
| Family planning | HC/District/regional/tertiary hospitals |
| Vaccination e.g HPV | HC/District/regional/tertiary hospitals |
| Peer education | Community /HC/District/regional/tertiary hospitals |
| Condom promotion | Community /HC/District/regional/tertiary hospitals |
| STI management | HC/District/regional/tertiary hospitals |
| Counselling for unintended pregnancies | HC/District/regional/tertiary hospitals |
| Post exposure prophylaxis | HC/District/regional/tertiary hospitals |
| Psychosocial welfare interventions | Community /HC/District/regional/tertiary hospitals |

**Communicable conditions**

|  |  |
| --- | --- |
| **Intervention categories** | **Level of service delivery** |
| Awareness creation /mass campaigns on Communicable conditions | Community/health centre/District/regional/tertiary hospitals |
| IEC/BCC | Community/health centre/District/regional/tertiary hospitals |
| Health education | Community/health centre/District/regional/tertiary hospitals |
| **Management and control of STIs/HIV/AIDs** | Health centre/District/regional/tertiary hospitals |
| Screening for STIs/HIV/AIDs | Community/health centre/District/regional/tertiary hospitals |
| Promote condom use | Community/health centre/District/regional/tertiary hospitals |
| Syndromic management of STI | health centre/District/regional/tertiary hospitals |
| Post exposure prophylaxis | District/regional/tertiary hospitals |
| Management of opportunistic infections | Health centre/District/regional/tertiary hospitals |
| PMTCT | Health centre/District/regional/tertiary hospitals |
| TB screening | Community/health centre/District/regional/tertiary hospitals |
| Male circumcision | Health centre/District/regional/tertiary hospitals |
| Vaccinations eg Hep. | Community/health centre/District/regional/tertiary hospitals |
| Nutrition supplementation | Community/health centre/District/regional/tertiary hospitals |
| ART therapy & monitoring | District/regional/tertiary hospitals |
| Management of complications | District/regional/tertiary hospitals |
| **Management and control of TB** | Community/health centre/District/regional/tertiary hospitals |
| TB screening | Community/health centre/District/regional/tertiary hospitals |
| Active case finding | Community/health centre/District/regional/tertiary hospitals |
| DOTs to promote adherence | Community/health centre/District/regional/tertiary hospitals |
| Vaccination-BCG | Health centre/District/regional/tertiary hospitals |
| Contact tracing | Community/health centre/District/regional/tertiary hospitals |
| Management of TB/HIV co-infection | Health centre/District/regional/tertiary hospitals |
| Nutritional support | Community/health centre/District/regional/tertiary hospitals |
| Management of Drug Resistant TB | District/regional/tertiary hospitals |
| Management of complications |  |
| **Diagnostics for TB** | Community/health centre/District/regional/tertiary hospitals |
| * TB smear test | health centre/District/regional/tertiary hospitals |
| * TB skin test | health centre/District/regional/tertiary hospitals |
| * Gene Xpert | District/regional/tertiary hospitals |
| * X-rays | District/regional/tertiary hospitals |
| **Prevention and control of conditions of epidemic potential** |  |
| Effective surveillance | Community /HC/District/regional/tertiary hospitals |
| Immunization e.g., OPV/IPV | HC/District/regional/tertiary hospitals |
| Multisectoral approach in epidemic control | Community /HC/District/regional/tertiary hospitals |
| Outbreaks response | Community /HC/District/regional/tertiary hospitals |
| Notification | Community /HC/District/regional/tertiary hospitals |
| Nutritional support | Community /HC/District/regional/tertiary hospitals |
| Data management and research | Community /HC/District/regional/tertiary hospitals |
| * **Diagnostics** |  |
| * Culture tests | HC/District/regional/tertiary hospitals |
| * Blood tests | HC/District/regional/tertiary hospitals |
| * PCR e.g., real time PCR for anthrax | District/regional/tertiary hospitals |
| * Serology tests | District/regional/tertiary hospitals |
| * Chest X-rays | District/regional/tertiary hospitals |
| * CT scan | District/regional/tertiary hospitals |
| Admissions | District/regional/tertiary hospitals |
| High care | Regional/tertiary hospitals |
| ICU care | Tertiary hospitals |
| Timely Referral of patients with communicable diseases | Community/health centre/District/regional/tertiary hospitals |
| Follow up for patients with /or have recovered infectious disease | Community/health centre/District/regional/tertiary hospitals |
| Home based care | Community/health centre/District/regional/tertiary hospitals |
| Physiotherapy /physical therapy | Community/health centre/District/regional/tertiary hospitals |
| Psychosocial welfare interventions | Community/health centre/District/regional/tertiary hospitals |

**Non communicable conditions**

|  |  |
| --- | --- |
| **Intervention categories** | **Level of service delivery** |
| Awareness creation on non -communicable conditions / | Community/Health centre/District/regional/tertiary hospital |
| Community sensitization on pre-disposing factors | Community/Health centre/District/regional/tertiary hospital |
| IEC/BCC | Community/Health centre/District/regional/tertiary hospital |
| Health education | Community/Health centre/District/regional/tertiary hospital |
| Capacity building on NCDs | Community/Health centre/District/regional/tertiary hospital |
| Routine screening for risk factors/identification | Health centre/District/regional/tertiary hospital |
| Screening for NCDs | Health centre/District/regional/tertiary hospital |
| Non -pharmaceutical management of NCDs-e.g., adoption of healthy lifestyle; diet modification; exercises; healthy weight etc | Health centre/District/regional/tertiary hospital |
| Medication | Health centre/District/regional/tertiary hospital |
| Transfusions | District/regional/tertiary hospitals |
| Chemotherapy | Tertiary hospitals |
| Radiotherapy | Tertiary hospitals |
| Surgical interventions e.g., angioplasty | Tertiary hospital |
| Admissions | District/regional/tertiary hospital |
| High care | Regional /tertiary hospital |
| ICU care | Tertiary |
| Referral of cases | Community/Health centre/District/regional/tertiary hospital |
| Management of complications | District/regional/tertiary hospital |
| Management of underlying conditions | District/regional/tertiary hospital |
| Follow up of cases | Community/Health centre/District/regional/tertiary hospital |
| Home based care | Community/Health centre/District/regional/tertiary hospital |
| Community based rehabilitation | Community/Health centre/District/regional/tertiary hospital |
| Physical therapy /exercises | Community/Health centre/District/regional/tertiary hospital |
| Occupational therapy | District/regional/tertiary hospital |
| Speech therapy | District/regional/tertiary hospitals |
| Palliative pain therapy | Regional /tertiary hospitals |
| Psychosocial welfare interventions | Community/Health centre/District/regional/tertiary hospital |
| **Diagnostics** |  |
| Blood pressure screening | Community/Health centre/District/regional/tertiary hospital |
| Blood sugar screening | Community/Health centre/District/regional/tertiary hospital |
| Blood lipids /Lipids profile | Health centre/District/regional/tertiary hospital |
| Biopsies (for cancer) | Regional/tertiary hospitals |
| Mammography (breast cancer) | Tertiary hospitals |
| Endoscopy | District/regional/tertiary hospitals |
| BMI | Community/Health centre/District/regional/tertiary hospital |
| X-rays | District/regional/tertiary hospitals |
| Ultra-sound | District/regional/tertiary hospitals |
| CT scan | District/regional/tertiary hospitals |
| Angiography | Tertiary hospital |
| Electro-cardiogram-ECG | Tertiary hospital |
| Echocardiogram | Tertiary hospital |
| MRI | Tertiary hospital |

**Neglected Tropical Diseases**

|  |  |
| --- | --- |
| **Intervention categories** | **Level of service delivery** |
| Awareness creation on NTDs | Community /Health centre/District/regional /Tertiary hospital |
| IEC/BCC | Community /Health centre/District/regional /Tertiary hospital |
| Health education | Community /Health centre/District/regional /Tertiary hospital |
| Strengthening the knowledge of health workforce on NTDs | Community /Health centre/District/regional /Tertiary hospital |
| Early detection of NTDs | Community /Health centre/District/regional /Tertiary hospital |
| Multi-sectoral approach in improving sanitation and hygiene | Community/ Health centre/District/Regional /tertiary hospitals |
| Nutrition interventions | Health centre/District/Regional /tertiary hospitals |
| Supportive management | Health centre/District/Regional /tertiary hospitals |
| Supplementation e.g., Iron | Health centre/District/Regional /tertiary hospitals |
| Medication-e.g. Management with Mass Drugs Administration (MDA) | Health centre/District/Regional /tertiary hospitals |
| Surgical interventions e.g., cryotherapy /hookworm extraction | District/Regional /tertiary hospitals |
| Management of complications | District/Regional /tertiary hospitals |
| Timely Referral of cases | Community/Health centre/District/Regional /tertiary hospitals |
| **Diagnostics** |  |
| Stool microscopy | Health centre/District/Regional /tertiary hospitals |
| Blood tests | Health centre/District/Regional /tertiary hospitals |
| Ultrasound | District/Regional /tertiary hospitals |
| X-rays e.g., chest x-ray | District/Regional /tertiary hospitals |

**Mental Health services**

|  |  |
| --- | --- |
| **Intervention categories** | **Level of service delivery** |
| Awareness creation on mental health conditions | Community /Health centre/District/regional /Tertiary hospital |
| IEC/BCC | Community /Health centre/District/regional /Tertiary hospital |
| Health education | Community /Health centre/District/regional /Tertiary hospital |
| Promote healthy lifestyles -eg proper diet; weight management | Community /Health centre/District/regional /Tertiary hospital |
| Advocacy for mental health services | Community /Health centre/District/regional /Tertiary hospital |
| Mental health outreaches | Health centre/District/regional /Tertiary hospital |
| Management of depression/post-traumatic stress | District/regional /Tertiary hospital |
| Management of Alzheimer’s | District/regional /Tertiary hospital |
| Crisis interventions | Community /Health centre/District/regional /Tertiary hospital |
| Psychosocial therapy | Community /Health centre/District/regional /Tertiary hospital |
| Behavioural therapy | District/regional /Tertiary hospital |
| Psychotherapy | District/regional /Tertiary hospital |
| Medication | District/regional /Tertiary hospital |
| Management of underlying factors eg substance abuse | District/regional /Tertiary hospital |
| Medical devices eg electroconvulsive therapy | Tertiary hospital |
| Physiotherapy | Health centre/District/regional /Tertiary hospital |
| Occupational therapy | District/regional /Tertiary hospital |
| Home based care | Community /Health centre/District/regional /Tertiary hospital |
| Timely Referral of cases | Community /Health centre/District/regional /Tertiary hospital |

**Dermatology services**

|  |  |
| --- | --- |
| **Interventions** | **Level of service delivery** |
| Create awareness on Dermatology conditions | Community/Health centre/District/regional/tertiary hospital |
| IEC/BCC | Community/Health centre/District/regional/tertiary hospital |
| Health education | Community/Health centre/District/regional/tertiary hospital |
| Capacity strengthening | Community/Health centre/District/regional/tertiary hospital |
| Promote Hygiene measures | Community/Health centre/District/regional/tertiary hospital |
| Contact tracing | Community/Health centre/District/regional/tertiary hospital |
| Management of contacts | Health centre/District/regional/tertiary hospital |
| Multisectoral approach in improving water/sanitation /hygiene | Community/Health centre/District/regional/tertiary hospital |
| Nutritional interventions | Community/Health centre/District/regional/tertiary hospital |
| Medications (Topical/ systemic) | Health centre/District/regional/tertiary hospital |
| Surgical interventions | District/regional/tertiary hospital |
| Radiotherapy | Regional/tertiary hospital |
| Palliative pain management e.g. for skin cancer | Regional/tertiary hospital |
| Psychosocial welfare interventions | Community/Health centre/District/regional/tertiary hospital |
| Timely referral of cases | Community/Health centre/District/regional/tertiary hospital |
| Follow up | Community/Health centre/District/regional/tertiary hospital |

**Eye services**

|  |  |
| --- | --- |
| **Intervention categories** | **Level of service delivery** |
| Awareness creation on Communicable conditions | Community/Health centre/District/regional /Tertiary hospital |
| IEC/BCC | Community /Health centre/District/regional /Tertiary hospital |
| Health education | Community /Health centre/District/regional /Tertiary hospital |
| Screening for eye conditions | Health centre/District/regional /Tertiary hospital |
| Treatment of injuries /infections | Health centre/District/regional /Tertiary hospital |
| Prevention of neonatal conjunctivitis | Health centre/District/regional /Tertiary hospital |
| Outreaches | Health centre/District/regional /Tertiary hospital |
| MDA e.g. for trachoma | Health centre/District/regional /Tertiary hospital |
| Assessment and management of underlying conditions | District/regional /Tertiary hospital |
| Specialized medical interventions | District/regional /Tertiary hospital |
| Specialized surgical interventions | Regional /Tertiary hospital |
| Visual rehabilitation /visual aids | District/regional /Tertiary hospital |
| Mobility aids | Community /Health centre/District/regional /Tertiary hospital |
| Timely referral of cases | Community /Health centre/District/regional /Tertiary hospital |
| Psychosocial welfare interventions | Community /Health centre/District/regional /Tertiary hospital |
| Follow up | Community /Health centre/District/regional /Tertiary hospital |

**Oral health services**

|  |  |
| --- | --- |
| **Intervention categories** | **Level of service delivery** |
| Awareness creation on oral conditions | Community /Health centre/District/regional /Tertiary hospital |
| IEC/BCC | Community /Health centre/District/regional /Tertiary hospital |
| Health education | Community /Health centre/District/regional /Tertiary hospital |
| Capacity strengthening on oral conditions | Community /Health centre/District/regional /Tertiary hospital |
| Dental outreaches | Health centre/District/regional /Tertiary hospital |
| Screening for dental conditions | Health centre/District/regional /Tertiary hospital |
| Nutrition interventions | Community /Health centre/District/regional /Tertiary hospital |
| Encouraging healthy lifestyle –oral hygiene /proper diet/ no smoking | Community /Health centre/District/regional /Tertiary hospital |
| prosthodontics | District/regional /Tertiary hospital |
| Prosthesis | District/regional /Tertiary hospital |
| Orthodontic treatment | District/regional /Tertiary hospital |
| Medication e.g., analgesics/antibiotic | Health centre/District/regional /Tertiary hospital |
| Surgical interventions eg reconstructive surgery | Regional /Tertiary hospital |
| Timely Referral of cases | Community /Health centre/District/regional /Tertiary hospital |
| Follow up | Community /Health centre/District/regional /Tertiary hospital |

**Injuries GBV, Burns and corrosions /poisoning**

|  |  |
| --- | --- |
| **Intervention categories** | **Level of service delivery** |
| Awareness creation on violence and injuries | Community /Health centre/District/regional /Tertiary hospital |
| IEC/BCC | Community /Health centre/District/regional /Tertiary hospital |
| Health education | Community /Health centre/District/regional /Tertiary hospital |
| Pre-hospital care | Health centre/District/regional /Tertiary hospital |
| Emergency health services | Health centre/District/regional /Tertiary hospital |
| First aid and emergency resuscitation | Community /Health centre/District/regional /Tertiary hospital |
| Management of injuries | Health centre/District/regional /Tertiary hospital |
| Management of gender-based violence | Health centre/District/regional /Tertiary hospital |
| Management of burns and corrosions | Health centre/District/regional /Tertiary hospital |
| Management of poisoning | Health centre/District/regional /Tertiary hospital |
| Disaster management and response | Community /Health centre/District/regional /Tertiary hospital |
| Timely Referral | Community /Health centre/District/regional /Tertiary hospital |
| Follow up | Community /Health centre/District/regional /Tertiary hospital |

**Cross cutting interventions for collaboration with other sectors**

These interventions cuts across the sectors and the health sector therefore requires to collaborate with relevant sectors in their implementation in order to promote good health

|  |
| --- |
| **Intervention categories** |
| Awareness creation on violence and injuries |
| Safe water |
| Sanitation and hygiene |
| Nutrition services in collaboration with agriculture sector |
| Pollution control |
| Proper Housing |
| School health programs |
| Food fortification |
| Population management |
| Disaster management and response |
| Road infrastructure and transport |
| Control of Substance abuse |
| Vector control |

# Annex 2: Ten top causes of mortality by age cohort (WHO burden of disease estimates 2015)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **0-4 yeas** | **5-14 years** | **15-29 years** | **30-49 years** | **50-59 years** | **60-69 years** | **Over 70 years** |
| 1 | HIV/AIDS | HIV/AIDS | HIV/AIDS | HIV/AIDS | HIV/AIDS | Cardiovascular diseases | Cardiovascular diseases |
| 2 | Preterm birth complications | Diarrhoeal diseases | Interpersonal violence | Tuberculosis | Cardiovascular diseases | HIV/AIDS | Stroke |
| 3 | Lower respiratory infections | Road injury | Maternal conditions | Interpersonal violence | Diabetes mellitus | Stroke | Ischaemic heart disease |
| 4 | Birth asphyxia and birth trauma | Lower respiratory infections | Tuberculosis | Cardiovascular diseases | Tuberculosis | Ischaemic heart disease | Diabetes mellitus |
| 5 | Neonatal sepsis and infections and neonatal conditions | Tuberculosis | Road injury | Maternal conditions | Ischaemic heart disease | Diabetes mellitus | Chronic obstructive pulmonary disease |
| 6 | Diarrhoeal diseases | Interpersonal violence | Diarrhoeal diseases | Diarrhoeal diseases | Stroke | Tuberculosis | Lower respiratory infections |
| 7 | Congenital anomalies | Other unintentional injuries | Self-harm | Lower respiratory infections | Lower respiratory infections | Lower respiratory infections | Diarrhoeal diseases |
| 8 | Protein-energy malnutrition | Drowning | Lower respiratory infections | Self-harm | Diarrhoeal diseases | Chronic obstructive pulmonary disease | Hypertensive heart disease |
| 9 | Tuberculosis | Meningitis | Other malignant neoplasms | Other malignant neoplasms | Hypertensive heart disease | Diarrhoeal diseases | Tuberculosis |
| 10 | Meningitis | Exposure to mechanical forces | Cardiovascular diseases | Road injury | Other malignant neoplasms | Hypertensive heart disease | HIV/AIDS |

# Annex 3: Top ten causes of morbidity (source WHO burden of disease estimates 2015)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **0-4 years** | **5-14 years** | **15-29 years** | **30-49 years** | **50-59 years** | **60-69 years** | +70 years |
| 1 | Iron-deficiency anaemia | Iron-deficiency anaemia | HIV/AIDS | HIV/AIDS | HIV/AIDS | Other hearing loss | Other hearing loss |
| 2 | Diarrhoeal diseases | Asthma | Depressive disorders | Depressive disorders | Depressive disorders | Diabetes mellitus | Diabetes mellitus |
| 3 | Congenital anomalies | Skin diseases | Anxiety disorders | Back and neck pain | Diabetes mellitus | Depressive disorders | Depressive disorders |
| 4 | Neonatal conditions | Childhood behavioural disorders | Migraine | Other hearing loss | Back and neck pain | Back and neck pain | Uncorrected refractive errors |
| 5 | Other infectious diseases | HIV/AIDS | Other hearing loss | Migraine | Other hearing loss | HIV/AIDS | Back and neck pain |
| 6 | Preterm birth complications | Anxiety disorders | Skin diseases | Diabetes mellitus | Uncorrected refractive errors | Uncorrected refractive errors | Cataracts |
| 7 | HIV/AIDS | Idiopathic intellectual disability | Drug use disorders | Other musculoskeletal disorders | Chronic obstructive pulmonary disease | Chronic obstructive pulmonary disease | Alzheimer disease and other dementias |
| 8 | Protein-energy malnutrition | Depressive disorders | Back and neck pain | Anxiety disorders | Osteoarthritis | Osteoarthritis | Chronic Kidney diseases |
| 9 | Uncorrected refractive errors | Congenital anomalies | Alcohol use disorders | Uncorrected refractive errors | Other musculoskeletal disorders | Chronic Kidney diseases | Chronic obstructive pulmonary disease |
| 10 | Otitis media | Other hearing loss | Iron-deficiency anaemia | Drug use disorders | Oral conditions | Oral conditions | Osteoarthritis |

# Annex 4: EHP Technical Team

**CONSULTANT**

* DR ISABEL MAINE

LEADS

* DR NYANE LETSIE
* DR ZBELO MESFIN
* GETRUDE AVORTRI

**COHORT TEAMS**

1. **PREGNANCY AND NEWBORN (UP TO 28 DAYS)**

* DR NONKOSI TLALE
* DR THABELO MAKHUPANE
* DR HENRI MAHADIMBY
* MPOEETSI MAKAU
* MOTSOANKU MEFANE
* TLEBERE MPO
* RAMAHLAPANE LECHESA
* MAKOAE MATHAHA
* AMELIA MASHEA MABITLE (NUL)
* ESTHER MANDARA (CHAI)

1. **EARLY CHILDHOOD (29 DAYS – 59 MONTHS)**

* DR NWAKO AZUBUIKE BENJAMIN
* DR LUCY MAPOTA
* DR LEBOHANG SAO
* MOLAOA MAQHAMA
* MARETHABILE KELANE
* NTHATISI MOTHISI
* LISEMELO SEHERI
* TUMELO MOTHEBE
* MATSITSO MOHOANYANE
* KELUMETSE MOLETSANE
* MABATHO MADUNA
* BLANDINAH MOTAUNG (UNFPA)

1. **LATE CHILDHOOD AND ADOLESCENTS (5 – 19 YEARS)**

* DR MAKHOASE RANYALI
* DR MPHO KHOABANE
* DR LIKETSO MOCHOCHOKO
* DR CYRIL NKOMO (CHAI)
* MATHATO NKUATSANA
* MATSEPELI NCHEPHE
* KHOTSO MAHLALEFI
* PALESA RAMOTHELLO
* ARABANG SETLELI
* MPHENG MOLAPO (MOET)
* THABELANG RABAHOLO (EGPAF)
* THATO SEUTLOALI (WHO)

1. **ADULTHOOD ( 20 - 59 YEARS)**

* DR NAVONEIWA MAREALLE
* DR TSEPANG LEKHELE
* DR MOSALA ZULU (PIH)
* MOIPONE LETEBA
* MOSEPELI RATIKANE
* MAKHOTSO TSOTETSI
* MATHABO MAREKA
* NTHABISENG MASIA
* NELLY FOBO (IMAL)
* MABATAUNG MOKHATHALI (MOGYSR)

1. **ELDERLY (60+ YEARS)**

* DR THABELO RAMATLAPENG
* CECILIA KHACHANE
* ANNA MASHEANE
* SEJOJO PHAAROE
* MOELO SEHLABAKA
* NKARENG MOSALA
* RAMAHLAPANE THEJANE
* MATSELISO NOE (CHAL)
* MASEALIMO MARUMO (MOSD)
* THATO MXAKAZA (WHO)

**HMIS TEAM**

* MASEBEO KOTO
* LEBOHANG RANTSATSI
* MATLHOLOHELO QACHA

**DRIVERS**

* MOHLOUOA MAEMA
* SEKHOANE SEPHAPHATHI

1. National Health Strategic Plan:NHSP 2018/19- 2022/23 [↑](#footnote-ref-1)
2. WHO: Maternal and new-born health [*https://www.euro.who.int/en/health-topics/Life-stages/maternal-and-newborn-health*](https://www.euro.who.int/en/health-topics/Life-stages/maternal-and-newborn-health) [↑](#footnote-ref-2)
3. Neglected tropical diseases: CDC. [*https://www.cdc.gov/globalhealth/ntd/index.html*](https://www.cdc.gov/globalhealth/ntd/index.html) [↑](#footnote-ref-3)