



HEALTH SECTOR STRATEGIC DEVELOPMENT PLAN

HSSDP: 2010-2014



MINISTRY OF HEALTH, ERITREA

THE STATE OF ERITREA MINISTRY OF HEALTH

MARCH 2010

FORWARD

In the past two decades since liberation Eritrea has witnessed unprecedented, of more than 50 percent, reduction in infant, under five and maternal mortality and unparalleled successes in the control of many communicable diseases including malaria, measles, HIV-AIDS etc. , mainly due to strong political commitment which puts health at the centre of development and social justice.

The prevailing conducive policy environment is a continuation of what existed during the years of struggle for independence. The strong political commitment of the State of Eritrea to Health of the population is the foundation of the conducive policy environment. The main guiding principles and the strategic directions of this HSSDP are also the guiding principles and strategic directions of Macro-policy of Eritrea. Besides the availability of a socially accountable Government committed to human development, social justice and health of the population, the availability of highly dedicated people and health workforce, the existence of a heritage of community involvement and multisectorial approach for development endeavours are among the key opportunities. We shall continue using these opportunities for ensuring sustained success in the health sector.

The main aim of this HSSDP is to set the stage for implementation of the National Health Policy (NHP), which has been prepared concomitantly. The HSSDP shall facilitate moving from policy to action by providing guidance for the preparation and operations of action plans at all levels of the health sector for the next five years, 2010-2014. Effective materialization of this goal requires preparation and implementation of division (package of interventions), Zone and Sub-Zone specific long and medium term Action Plans and annual or operational plans. Hence, I would like to urge all departments, Zonal Ministry of Health Branch offices and parastatal health institutions to review their level specific action plans according to the National Health Policy and this HSSDP. Finally, as only implementation can put plans in to action, I would like to urge the whole health manpower to enhance its engagement in implementation.

The process of preparing the HSSDP, although tedious and long had been enlightening in terms of learning the existing strengths, weakness, opportunities and threats of the health sector. The HSSDP has spelled out the objectives, strategies and expected outputs for each health intervention identified in the NHP. Both the NHP and the HSSDP have put due emphasis on promoting health and healthy life style and preventing both communicable and non communicable diseases and injuries, along with high quality curative services for the sick and rehabilitative care for those with residual damage of illness.

Eritrean health policies and strategies that are presented in the NHP and this HSSDP are the result of a critical assessment of the nature, magnitude and root causes of the prevailing health problems of the country and awareness of newly emerging health problems. The health strategies are based on the fundamental principle that health, constituting physical, mental and social well being, is a prerequisite for the enjoyment of life and for optimal productivity. Higher standards of living as a result of economic growth will also enhance the physical, mental and social well-being of the people of Eritrea. The health strategies are also founded on the commitment to rights of the people.

Decentralization is seen as the most appropriate system of Government for the full exercise of these rights. The Ministry of Health shall strengthen the management capability of Zonal, Sub-Zonal and health facility level, as a prerequisite for effective decentralization. The Ministry accords appropriate emphasis on the needs of the less privileged rural population and urban poor, which constitute the majority of the population, as well as on the more vulnerable population groups, which include mothers and children.

I would like to express my sincere gratitude to all those who worked tirelessly to produce this HSSDP. I would also like to call upon all stake holders, including the population, our health workforce, all concerned sectors and civic societies, as well our international and bilateral partners and many others to strengthen their concerted efforts for the success of this HSSDP.

Amina Nurhussien
Minster of Health

LIST OF ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal care
BCC	Behaviour change communication
BHCP	Basic Health Care Package
CHA	Community Health Agent
DKB	Dehubawi Keyh Bahri Zone
DOTs	Directly Observed Treatment Strategy
EDHS	Eritrea Demographic and Health Survey
EHP	Eritrea Health Package
FGM	Female Genital Mutilation
FP	Family Planning
GB	Gash Barka zone
GDP	Gross Domestic Product
GOE	Government of Eritrea
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
HRH	Human Resource for Health
HSSDP	Health Sector Strategic and Development Plan
IMCI	Integrated Management of Neonatal and Childhood Illnesses
IMR	Infant mortality rate
ITNs	Insecticide Treated Nets
IVM	Integrated Vector Management
LLINs	Long lasting Insecticide Treated Nets
MA	Maakel zone
MDR-TB	Multidrug-Resistant Tuberculosis
MMR	Maternal mortality rate
MND	Ministry of National Development
MOH	Ministry of Health
NCDs	Non-communicable diseases
NDP	National Drug Policy
NHP	National Health Policy
NRH	National Referral Hospitals
ODA	Official Development Aid
PHC	Primary Health Care
PLHAs	People living with HIV/AIDS
PMTCT	Prevention of Mother to Child Transmission
RH	Reproductive Health
RHS	Reproductive Health Services
SKB	Semenawi Keyh Bahri Zone
SRH	Sexual and Reproductive Health
STIs	Sexually Transmitted Infections
SZHMT	Sub-Zobal Health Management Team
TB	Tuberculosis
U5MR	Under-five mortality rate
VHC	Village Health Committee
WHO	World Health Organisation
ZHMT	Zoba Health Management Team
ZMO	Zobal Medical Officer

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Executive Summary

As the result of the concerted efforts made to build new health facilities and upgrade and rehabilitate the existing ones accompanied with the efforts made in equipping them with the necessary equipments, drugs, other supplies and most important of all with the necessary trained human resource, access to health care within 10 Km radius increased from around 40 percent at the time of liberation to around 75 percent at the moment, while around 60 percent of the population live within 5 Kms from a health facility.

The developments and progresses made in health and other sectors over the past two decades since liberation, led to an unprecedented reduction in infant mortality from 72 per 1,000 live births in 1995 to 48 per 1,000 live births in 2002 and in under-five mortality from 136 per 1,000 live births in 1995 to 93 per 1,000 live births in 2002. A maternal mortality study undertaken in 2003 revealed a Maternal Mortality Ratio of 752 per 100,000 live births, for the year 2002, using a household survey on a nationally representative sample. The WHO, UNFPA, UNICEF and World Bank 2005 estimate for maternal mortality ratio in Eritrea is 450/100,000 live births. Access to safe water supply has increased from 16.4 percent in 1995 to 67.4 percent in 2002 and access to basic sanitation from 12.8 percent to 25.6 percent.

Trends in Life expectancy are usually taken as a summary or resultant of trends of many other health indicators. Life expectancy at birth increased significantly from 49 years in 1991 to 63 years in 2003 (World Health Report 2008). While most other developing countries show a decline in life expectancy due to the rising toll in deaths related to HIV/AIDS, life expectancy at birth in Eritrea is showing a positive growth, among other things due to reduction of infant and child mortality due to measles, malaria and other communicable diseases as well as the reduction in adult mortality due to malaria and other communicable diseases.

In the low-income countries like Eritrea, few health conditions are usually responsible for a high proportion of the health problems; these include childhood infectious diseases (many of which are preventable), maternal and prenatal conditions, HIV/AIDS, malaria, TB, and non-communicable diseases like hypertension, diabetes, mental health, and micronutrient deficiencies. These burdens of diseases significantly compromise the health status of the general population and therefore, the economic development of the low income countries..

There are effective interventions to prevent and treat these diseases both at the health facility, and community levels. Different Studies in different income levels have shown that if these diseases are prevented and controlled at the health facility, household, and community levels, the following benefits could be obtained and economic development could also be enhanced: patient load at health facilities is reduced; unnecessary hospital stay is avoided; quality of health service is improved; waste of drugs and other resources is reduced; Fewer health professionals are required or quality of service could be improved with the same number of health professionals; total health expenditure is minimized; productivity increases; and poverty is alleviated or eradicated; etc.

Eritrea like other low-income countries is characterized by younger population, high mortality and fertility rates, high incidence of communicable diseases, and the increasing trend of non-communicable diseases including cardio-vascular diseases, diabetes etc. The major health related challenges are summarized as:

Although remarkable achievements has been witnessed, there is still need of continuous focus on communicable diseases and other poverty related diseases that include nutritional deficiencies, diarrheal diseases, acute respiratory infections, malaria, HIV/AIDS and tuberculosis, rapidly increasing prevalence of NCD including injuries among the population, and low attendance of deliveries by skilled birth attendants.

These challenges are complicated by cross cutting issues such as: poverty, low level of education, shortage of trained health personnel in various fields, inadequate coverage in the areas of environmental sanitation, occupational health and other social determinants of health and the presence of high emergency threats/risks such as drought, epidemics and war.

The Monitoring and evaluation system of the HSSDP shall use various sources of information for monitoring progress towards the achievement of the objectives and to evaluate achievements, drawbacks and impact of programs. The Ministry of Health in collaboration with the National Statistics Office is currently undertaking (beginning of 2010) the third Eritrean Demographic and Health Survey (EDHS). The 2010 EDHS is using a very large sample size to collect extensive information including a relatively precise data on maternal mortality ratio and HIV sero prevalence. The fourth round EDHS is planned to be undertaken in 2015. The timing of these two EDHS rounds is fortunate for the implementation period of this HSSDP because the third round EDHS will provide us with reliable population based baseline data while the fourth round shall provide us with end-term evaluation data for the implementation period of this HSSDP.

The Health Sector Strategic Development Plan (HSSDP) is presented in seven chapters and four annexes. The HSSDP begins by introduction which presents the background, policy environment, the methodology and the structure of the document. The introduction is followed by chapter two that describes the governance and strategic direction of the health system that includes description of the national health system, the guiding principles, vision, mission and sector wide strategic directions and objectives. Based on the meetings held with the departments, divisions and units of the Ministry of Health and review of documents to analyse the strengths, weakness, opportunities and threats (SWOT), which are partly presented in the introduction and based on the direction and guidance described in the National Health Policy as well as in chapter two of this HSSDP, chapter three identifies the core interventions of the basic health care package, which include maternal and child health care and nutrition; prevention and control of communicable diseases with its integrated disease surveillance and response; prevention and control of non-communicable diseases, as well as cross cutting public health programs that include:- environmental health services, health promotion and education, quality of care, support supervision, rehabilitative health care, disaster preparedness and response and occupational health. The background information, objectives, strategies and expected outcomes and/or indicators of each of these basic health care package interventions is presented.

Chapter four presents: hospital and emergency medical care and referral network and integrated essential medical care. While chapter five presents, BHCP essential systems that include:- human resource for health development and management, pharmaceuticals procurement, national medicines administration/ regulation, procurement and supplies management system, infrastructure engineering, infrastructure medical and transport equipment, laboratory and diagnostic services, medical imaging services, blood transfusion services and legal affairs.

Chapter six presents sector planning, monitoring & evaluation that include planning and budgeting, health management information system, sector monitoring and evaluation and health research. The last chapter, chapter seven presents health care financing and funding including HSSDP financing, HSSDP funding and HSSDP budget.

Annex 1 presents the details of the recurrent budget, annex 2 presents a list of health related laws, regulations and policies, while the last annex, annex 3, presents the implementation framework in a tabular form:- the objectives, strategies, verifiable indicators, means of verification the responsible bodies and the budget for each component of the HSSDP.

Chapter1: INTRODUCTION

A. Background

Eritrea was under Italian occupation from 1889 to 1941, the British from 1941 to 1952 and Ethiopia from 1952 to April 1991. In May 1991 the Eritrean People's Liberation Front liberated the country and established a provisional government of Eritrea. Eritrea was declared an independent and sovereign nation on 20th May 1993.

Eritrea is located in the Horn of Africa, between latitudes 12 degrees 42'N and 18 degrees 2'N and longitudes 36 degrees 30'E to 43 degrees 20'E. It is bounded by the Sudan to the North and West, the Red Sea to the East, Ethiopia to the South and the Republic of Djibouti to the Southeast. The country has a surface area of about 124,000 square kilometres with four distinct topographic regions: central highlands (2000 meters above sea level), western lowlands (1000 meters above sea level), eastern lowlands (500 meters above sea level) and coastal lands (500 meters above sea level).

Administratively the country is divided into six administrative zones (see figure1) known as Zobas: Gash Barka (GB), Anseeba, Debub, Debubawi Keyh Bahri (DKB), Maakel (Ma) and Semenawi Kehy Bahri (SKB) Zones, 57 sub-zones, 699 administrative areas and 2,564 villages.

No population census has been carried out in Eritrea but based on a population estimate by the Ministry of Local Government (2001) the projected total population of Eritrea is approximately 3.46 million (MOH: Activity Report 2007).

Service delivery

At the time of liberation in 1991 the main causes of childhood morbidity and mortality were malaria, diarrheal diseases, acute respiratory infections, vaccine preventable diseases and malnutrition. Ministry of Health's emphasis was on primary health care as the most appropriate approach to tackle these challenges with encouraging results. Morbidity and mortality due to malaria has been reduced by over 85 percent since 1999 and at the moment more than 85 percent of Eritrean children have received the third dose of DPT and were immunized against measles. As a result of these efforts, Eritrea has eliminated neonatal tetanus, controlled measles and only a single reported case of polio since 1997. HIV prevalence in the general population of Eritrea is estimated at 0.7 percent.

Although Diarrheal Diseases and Acute Respiratory Infections are still a major cause of morbidity and mortality among the under-five children, the findings of the Eritrean Demographic and Health Surveys of 1995 and 2002 show a reduction in morbidity with morbidity due to acute respiratory infections in children under three years reducing from 23% in 1995 to 19% in 2002, morbidity due to fever from 42% in 1995 to 30% in 2002 and morbidity due to diarrhoea from 24% in 1995 to 13% in 2002.

Non-communicable diseases like cardiovascular diseases, diabetes mellitus, hypertension, cancers, liver diseases, preventable blindness, asthma, gastritis, duodenal ulcer, and mental illnesses are also among the leading causes of morbidity and mortality in health facilities indicating an increasing burden of non-communicable diseases. Taking into account the present and future increasing importance of non-communicable diseases, MOH is making the necessary preparations to prevent and manage non-communicable diseases. Although the increasing importance of non-communicable diseases cannot be overemphasised, prevention and control of communicable diseases will continue to equally be a policy priority.

Immunization coverage for the third dose of DPT, Hepatitis B and Homophiles Influenza to children between 12 and 23 months stands at more than 90 percent. In spite of the impressive improvements however, Eritrea still faces some challenges, notable among which is the low coverage of supervised delivery.

Human Resource for Health

The total Ministry of health workforce in the year 2009 was 6,988, which constitutes around 95 percent of the total health work force in the entire health sector. Only about 5 percent of the total health workforce are employed by the private sector (mainly pharmacies), religious organizations and industries.

The MOH has successfully established the Orotta School of Medicine and the Orrota Post graduate Medical Education and has recently graduated and dispatched its first batch of 31 medical doctors and 8 paediatricians. The College of Health Sciences consisting of: (i) School of Nursing, (ii) School of Allied Health Professions, (iii) School of Pharmacy and (iv) School of Public Health has also been strengthened and is training qualified health professionals in various fields. The College awards Diploma and bachelor's degrees and is preparing to develop local postgraduate programmes, to a master's degree level.

Notwithstanding the systematic development of health professionals to meet the local needs, there is still a dire need to enhance production to keep up with the pace of population growth, complexity of the burden of disease, ambitious NHP goals and technological advances.

Organisation of health services

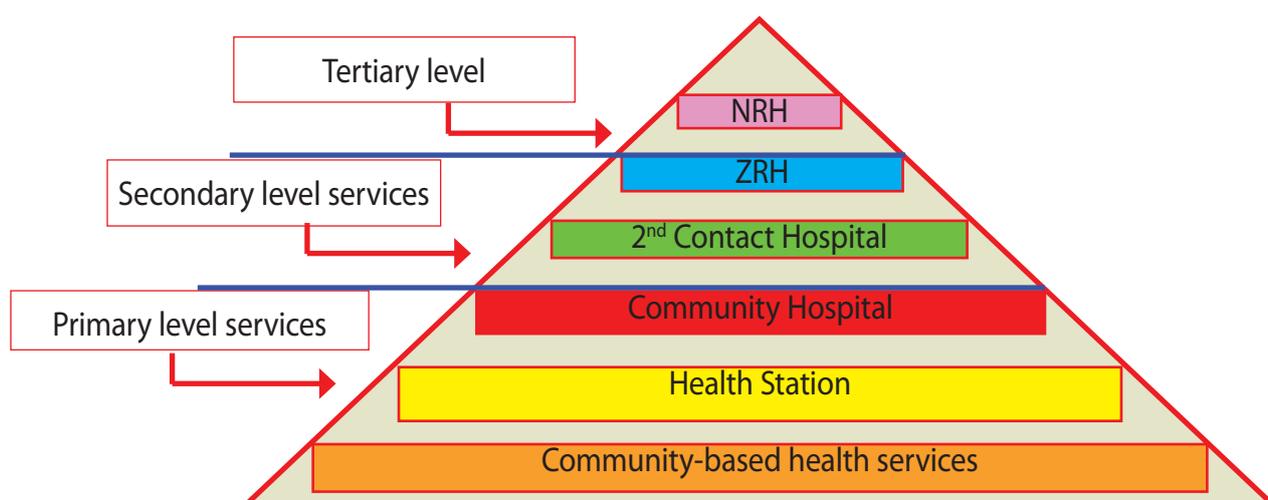
The Government, through the Ministry of Health, remains the major health provider in the country. Provision of health services in Eritrea has been provided through a three tier system (see figure 1), which include primary, secondary and tertiary level of service.:

Primary level of service consists of (i) Community-based health services with coverage of an estimated 2,000 to 3,000 peoples. This level provides BHCP based services by empowering communities, mobilising and maximising resources. The key delivery agent is the Community Health Worker under the leadership of the Village Health Committee. (ii) Health Stations offer facility-based primary health care services to a catchment population of approximately 5,000-10,000. (iii) Community Hospital is the referral facility for the primary health care level of service delivery serving a community of approximately 50,000-100,000 people. Community hospitals provide all services as the lower level facilities and additionally obstetric and general surgical services nearest with an aim of providing vital life saving surgical intervention closest to the people.

Secondary level of services is provided by the regional (zonal) referral hospitals and 2nd contact hospitals. They serve as referral facilities for the lower level facilities as well as teaching/training institutions for middle and operational level professionals and provide facilities for operational/applied research.

Tertiary level of service is be provided by the national referral hospitals which are situated in the capital city-Asmara. They not only serve as national referral facilities but as centres of excellence for specialised training/education, research and continuing education for acquisition of specialised health body of knowledge.

Figure 1: Eritrea three tier health delivery structure



There are 26 hospitals, 52 health centres, and 184 health stations, and 34 clinics owned by different industries and/or organizations, which serve their workers. Of the 26 hospitals in the country, 5 are the National Public Referral Hospitals, 6 are Zonal Referral Hospitals, and 13 are community hospitals while 1 is for profit public-private-mix hospital.

B. Policy Environment

This Health Sector Strategic and Development Plan 2010-2014 is developed on the basis of the National Health Policy whose summaries are outlined below.

The NHP takes stock of the achievements post-independence and recognises the key challenges to be low percentage of pregnant women who are delivered by skilled attendants; high neonatal mortality; the most at risk population groups are still more exposed to HIV and infected than others; TB prevalence and incidence is still a challenge; the threat of resurgence of malaria due to climatic changes and cross border transmission and emergence and/or re-emergence of vector-borne diseases, prevalence of non-communicable diseases and injuries is on the increase; the rapid expansion of health infrastructure with the need to prevent, control/ manage the double burden of communicable and non-communicable diseases and progressive technological advancement in health, has led to a high demand for appropriately skilled health personnel.

In order to respond to these challenges in the coming decades, the health sector will strive to attain the following strategic policy goals:

1. Significantly reduce the burden of early childhood illness and improve maternal and child health/development
2. Control communicable diseases with an aim of reducing them to a non-public health problem.
3. Prevent, control and manage non-communicable diseases.
4. Strengthen cross cutting health interventions
5. Enhance efficiency, equity and quality of service delivery through health systems development
6. Improve effectiveness of governance of the health system
7. Introduce more effective and efficient health-financing scheme, as economic and purchasing capacity of the population improves.
8. Strengthen sector planning, monitoring and evaluation capability

In order to achieve the above mentioned goals and in response to the health service needs of the population, an appropriate mix of promotive, preventive, curative, rehabilitative and supportive services will be provided based on the following strategic directions and policy orientations.

Considering the above mentioned appropriate mix services and the burden of disease in Eritrea and the need to enhance cost-effectiveness of interventions, a Basic Health Care Package (BHCP) that aims at maximising value for available resources by allocating them to interventions that realise the greatest benefits in improving the health of the population has been defined and it will be the policy framework for future interventions.

The BHCP consist of three priority interventions: (i) maternal and child health and nutrition, (ii) prevention, control and management of communicable diseases and (iii) prevention, control and management of non-communicable diseases. These priority interventions are complemented by cross-cutting interventions: (i) environmental health services, (ii) health education and promotion, (iii) integrated disease surveillance & response and (iv) disaster preparedness and response (v) quality of care, (vi) Support supervision (vii) rehabilitative health care and (viii) occupational health

Efficiency and effectiveness in provision of the BHCP is ensured through a continuous improvement of the following essential and support health systems: (i) human resource for health development and management (ii) Pharmaceuticals Procurement, Supply and Logistics Management, (iii) Medical Equipments Engineering (iv) National Medicines Administration/ Regulation (v) Procurement and Supplies Management System (vi) Transportation and Communication (vii) Infrastructure Engineering (viii) Laboratory and Diagnostic Services (ix) Medical Imaging Services (x) Blood Transfusion Services (xi) Legal Affairs

Hospital care, emergency medical care and referral network, health care financing and financial management, sector planning, monitoring and evaluation shall also be strengthened along with strengthening of the overall health sector governance. .

The priority and cross cutting interventions provided comprehensively with the essential health systems constitute the BHCP. The BHCP shall form the basis for design of this HSSDP and all subsequent operational, medium term and long term action plans to enable gradual vertical and horizontal integration of the currently more vertically implemented projects and programs.

The main thrust of the NHP and consequently this HSSDP shall be to strengthen community based health services; gradually restructure facility-based health services in order to make them more responsive to the people's needs and available as close as possible to where people live and work, through upgrading of health centres to community hospitals or downgrading them to health stations; strengthen decentralised health governance structures; improve efficiency and the quality of care provided by hospitals; restructure the existing health financing framework into an acceptable and appropriate financing structure that enhances health-care utilization health care seeking behaviour and strengthen health sector coordination at all levels to enable better participation of all players.

C. Methodology

This Health Sector strategic Development Plan (HSSDP) has been developed as a product of collective efforts of key departments of the MOH under the leadership of the Minister of Health. The draft National Health Policy and several program specific strategic plans and guidelines were referenced as well as relevant international documents. All units, programs and departments have presented their program specific strategic action plans, which were used as the bases for drafting the documents. The document was finalized after extensive consultation meetings and comments by all departments of the Ministry of Health.

D. Structure of the Document

The Health Sector strategic Development Plan document provides a summarised description of key current challenges based on the situational analysis that formed the basis for the strategic direction. Building on the general strategic direction, the HSSDP presents background and problem analysis, objectives, strategies, expected outputs/outcomes/key indicators of each of the specific priority and cross cutting interventions of the basic health care package, the BHCP essential and support health systems, as well as for the sector governance,

sector planning, monitoring and evaluation and health care financing and management that guide and support the implementation of BHCP.

Conceptual framework for the whole HSSDP and more detailed for the BHCP part has been presented in the following two figures (figures 2 and 3). Detailed description of the recurrent budget of the HSSDP and the implementation framework of the HSSDP has also been presented in annex 1 and 3 respectively, while annex 2 presents the list of the already available health related laws, regulations, polices and guidelines.

Figure 2: CONCEPTUAL FRAMEWORK OF THE HSSDP

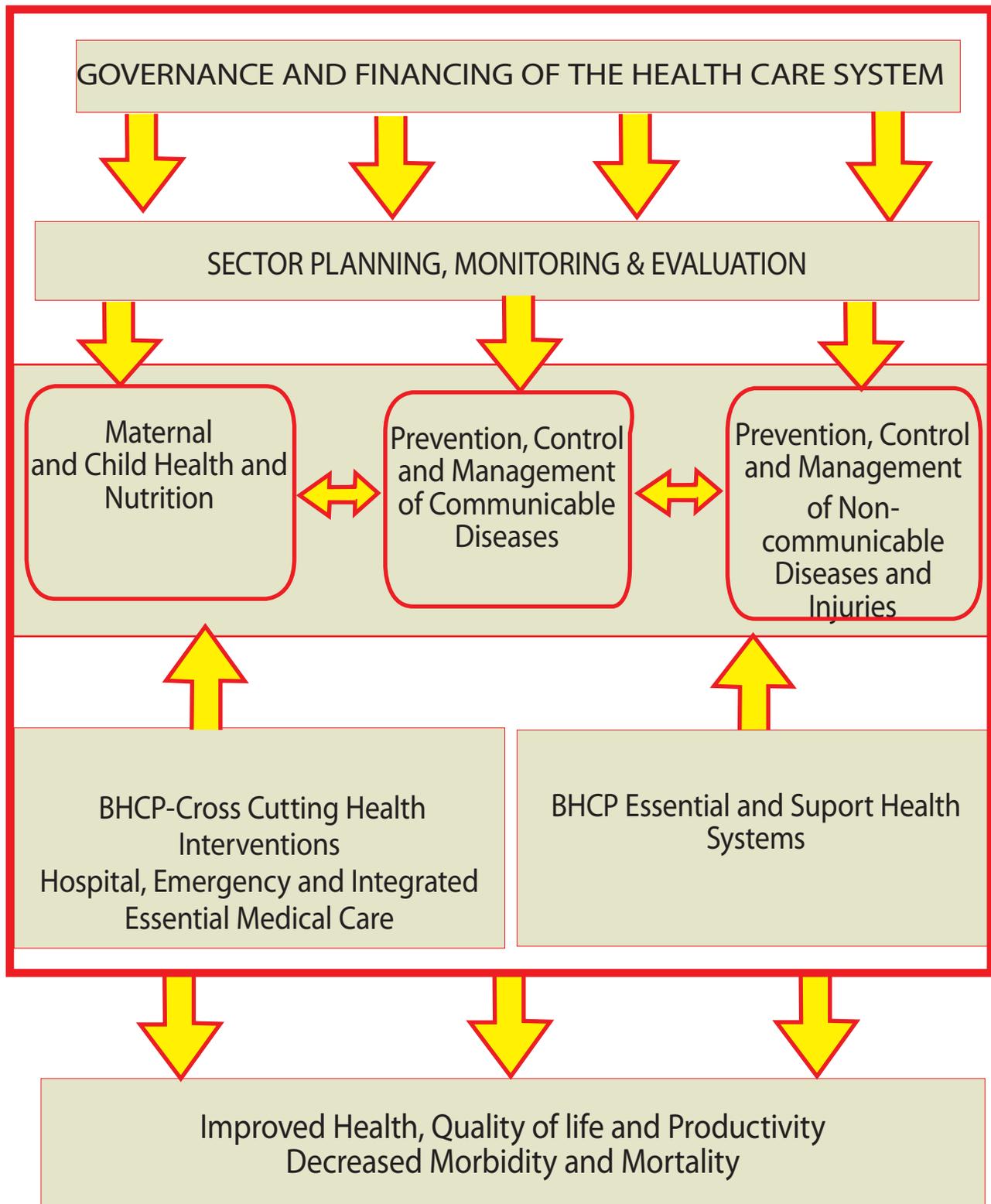
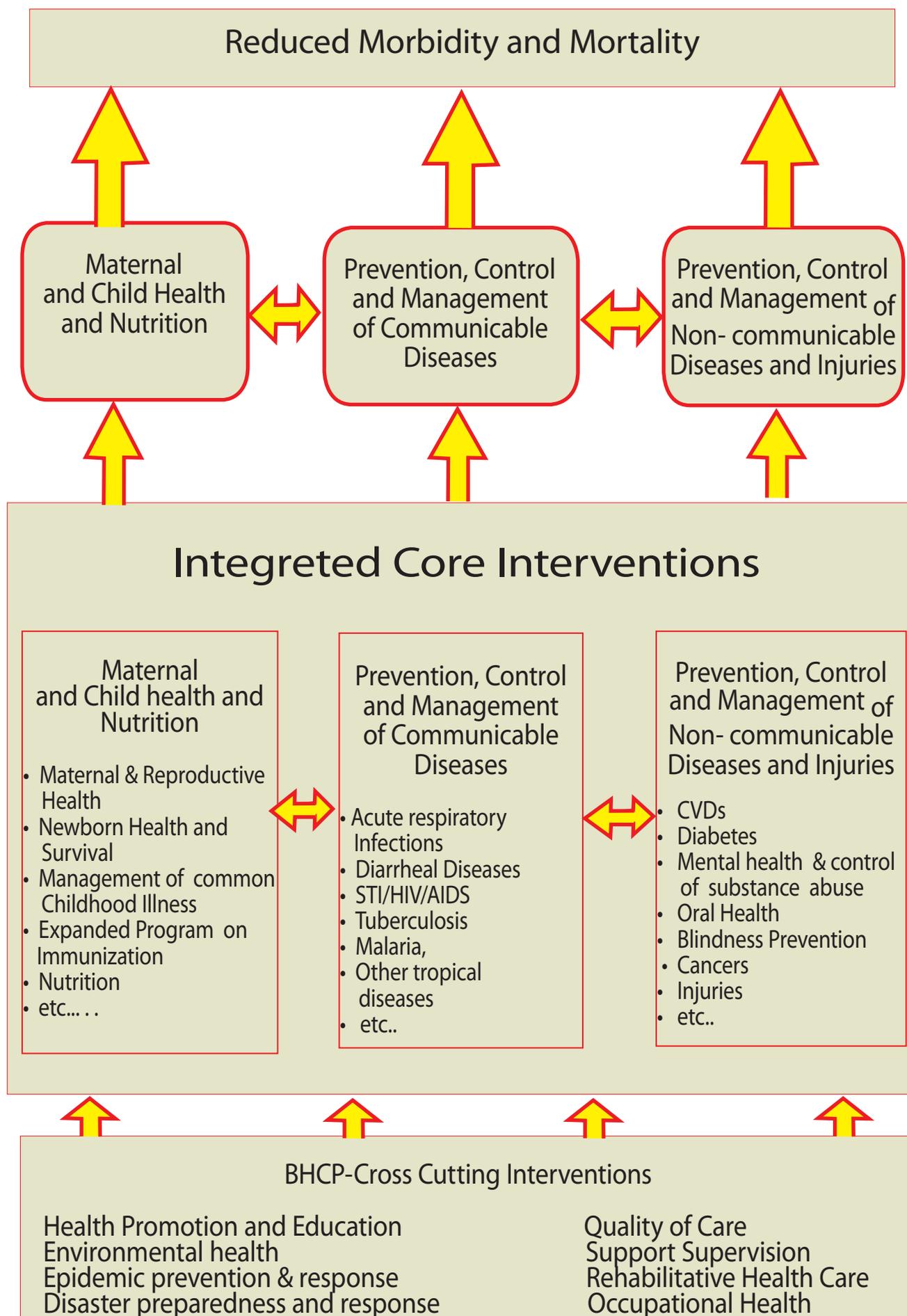


Figure 3: CONCEPTUAL FRAMEWORK OF BASIC HEALTH CARE PACKAGE (BHCP)



Chapter 2: GOVERNANCE AND STRATEGIC DIRECTION OF THE HEALTH SYSTEM

A. The National Health System

A health system has been defined as “the combination of resources, organization, financing and management that culminate in the delivery of health services to the population (Roemer, 1991). Health system governance is defined as a function of government which requires vision, intelligence and influence, primarily by the health Ministry which must oversee and guide the working and development of the nation’s health actions on government’s behalf (WHO Afro: Ouagadougou 2008). This pillar includes the strategic and operational level managerial decision-making structures for health and social welfare that influence the quality, quantity, pace and direction of decentralised health functions and service outcome.

In order to move expeditiously in the desired direction, the Ministry of Health has formulated the National Health Policy and the Health Sector Strategic Development Plan (HSSDP) and has revised its organisations structure. The main aim of the HSSDP and the forthcoming operational, medium term and long term action plan of the BHCP intervention packages, the zones and sub zones is to set objectives and identify the most cost effective means or strategies and activities of achieving the desired objectives.

The Eritrean Health System/sector comprises all institutions, structures and actors whose actions have the primary goal of achieving and sustaining good health. The role of government in health service provision and stewardship will continue to be vital for the foreseeable future.

The core functions of a national health system are:

- i) Stewardship of the sector including policy appraisal and development; oversight of health sector activities; assuring quality, health equity and fairness in contribution towards the cost of health care; harnessing the contribution of other health-related sectors; ensuring that the sector is responsive to expectations of the population; and to be accountable for the performance of the wider health sector.
- ii) Provision of preventive, promotive, curative and rehabilitative services
- iii) Policy and Planning, Monitoring and Evaluation
- iv) Mobilization of resources including human resources, health infrastructure, medicines and other health supplies, data and information, etc

Health interventions aimed at preventing, controlling and whenever possible curing, and rehabilitation of residual damage due to Communicable and Non Communicable Diseases that shall be implemented by the Eritrean Health System could broadly classified to population based interventions and personal or individual based interventions, as outlined below.

Population Based Interventions

- Population based interventions aim at primary prevention, are directed to entire populations or large subgroups, and fall into three categories:
 - Promoting personal behaviour change (diet, exercise, smoking, alcohol abuse, hygienic practises, unsafe sexual activity, health care seeking, compliance to treatment and medical advice, etc..)
 - Control of environment hazards (air and water pollution, disease vectors)

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- Medical interventions (immunization, mass chemoprophylaxis, large scale screening and referral)

Personal/Individual Interventions

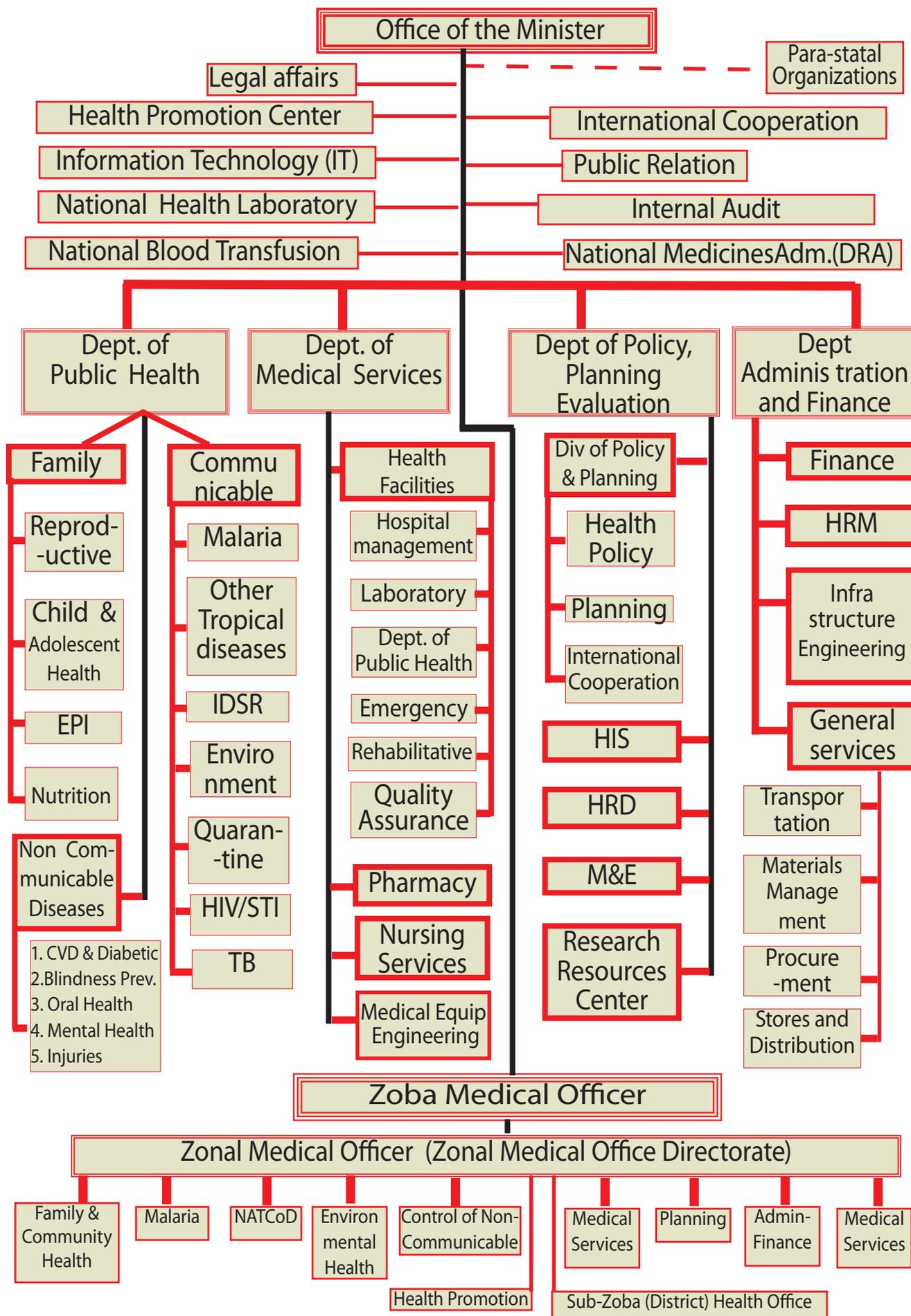
- Personal interventions are directed to individuals and can be intended for the following:
- Primary prevention: to reduce the level of one or more risk factors, to reduce the probability of initial occurrence for disease (medication for hypertension to prevent stroke, or heart attack), or to reduce the likelihood of disease when the risk factor is already (or will soon be) present (prophylaxis for malaria)
- Secondary prevention following the occurrence of disease- to prevent another event of the same kind (medication to reduce the likelihood of a second coronary event);
- Or to reduce the risk of a different but related event (medication to reduce the likelihood of a first heart attack after stroke)
- Cure- to remove the cause of a condition and restore function to the status quo ante (surgery for appendicitis).
- Acute management:- to provide short-term activity to decrease the severity of acute events or the level of established risk factors, to minimize their long term impacts (thrombolytic medication following heart attack, angioplasty to reduce stenosis in coronary arteries)
- Chronic management – to provide continued activity to decrease the severity of chronic conditions or prevent deterioration (medication for unipolar depression, insulin for diabetes). Chronic management can include some secondary prevention.
- Rehabilitation- to provide full or partial restoration of physical, psychological, or social function that has been damaged by a previous disease or condition (therapy following musculoskeletal injury, counseling for psychological problems)
- Palliation- to reduce pain and suffering from a condition for which no cure or rehabilitation is currently available (analgesics for headache, opiates for terminal cancer).

The Organizational Structure/Organogram of the Ministry of Health have been extensively reviewed in the context of the past experiences and drawbacks of previous structure, current challenges and opportunities and taking into account the scope of functions and activities of each level of the health care system.

Government Stewardship

The Government of Eritrea, through the Ministry of Health, has the lead role and responsibility for delivering the outputs of HSSDP. The Ministry of Health initiates policy and coordinates overall sector activities and brings together stakeholders at the central, Zonal, Sub Zonal, health facility and at community level. The MoH organizes the annual meetings for review of achievements, challenges, plans etc.. of all departments, zones and other stakeholders.

ORGANOGRAM of the MINISTRY of HEALTH



Following is a description of the guiding principles, the vision, the mission and the strategic directions of the health sector.

B. Guiding Principles

The principles that will guide health service provision in Eritrea in accordance with the Constitution of Eritrea are as follows:

Promote equity in provision of health service: this refers to distribution of costs and benefits of health services to all people, regardless of their location, ethnicity, gender, age, social, economic, cultural and political status.

Ownership & participation: Under decentralisation, the aim is to enhance client-oriented services that improve the general satisfaction of the people regardless of their social status. This will be achieved by facilitating higher levels of participation in identification of health problems, prioritisation, planning, monitoring, and budgeting decisions. Participation and decision-making in prioritisation, planning, budgeting, implementation progress reviews by the zobas and sub-zobas will therefore, be fundamental to enhancing community ownership and partnership with a special emphasis on women's groups.

Partnership: The partnership principle will be facilitated through inter-sectoral collaboration at community, sub-zoba and zoba levels on the one hand, and involvement of the wide spectrum of opinion/influence leaders on the other hand. This entails partnership with other government departments, development partners, traditional healers, etc.

Empowerment: The household is the most crucial and effective unit for production of health. Individuals in households with adequate knowledge about prevention of illnesses are able to take timely corrective measures and maintain a healthy lifestyle. It therefore, follows that empowering the individual and households by reaching them through varied social groupings would improve people's lifestyles which in turn would improve the individuals' overall health status. Empowerment will be through a participatory approach in development and implementation of culturally acceptable and scientifically sound health promotion activities.

Efficiency: This will involve rationalisation of health inputs to ensure maximum health outputs and outcomes.

Stewardship: the MOH will provide leadership through development and provision of policies, strategies, guidelines, regulatory services and technical support to facilities and Zoba governance structures. MOH will provide oversight for service delivery and regulate health services provided by other sectors (Industries and other work sites, etc.) with a special emphasis on vulnerable groups and enhancing access to quality health services

C. Vision

Improved health status and well being of the Eritrean people with an enabling environment for the provision of sustainable quality healthcare that is acceptable, affordable and accessible to all citizens.

D. Mission

To promote and provide good quality preventive, curative and rehabilitative health care services to the Eritrean people.

E. Strategic Directions

Equity

This strategy is aimed at ensuring universal accessibility to available resources and services in order to provide coverage of the most important health needs of the population, with care provided according to need.

In principle no one should be left out, no matter how poor or how remote. However, all cannot be reached at the same time, Hence those most in need should get priority. Among those whose needs are greatest are those who have limited physical, financial or cultural access to the service and those who are more vulnerable like mothers and children. This need based priority setting shall be the basis for planning delivery of health service in Eritrea. The Ministry of Health recognizes that this principle of equity may come into conflict with efforts to promote cost effectiveness, because those most in need may be more costly to reach.

The poorest and the sickest people have to be reached by health promotion and prevention programs, as well as curative and rehabilitative services. And there must be no significant price barrier at the time poor people need services. Not only there is need of providing services to the poor. Bu there also need of creating demand of services by the poor. People's demand for health care is greatly influenced by presumed needs. Systems fail when these two concepts do not match, because then the supply of services offered cannot possibly align with both. Poverty is one reason why needs may not be expressed in demand, and that can be resolved by offering care at low enough cost, not only in money but also in time and non medical expenses. There are many other reasons for mismatches between what people need and what they want, and simply providing medical facilities and offering services may do nothing to resolve them. The services provided not only should be affordable but should also be culturally acceptable.

Comprehensiveness of Services

Services should be promotive, preventive, curative and rehabilitative, i.e. services should not only be curative, but also should promote the population's understanding of health and healthy styles of life, and reach towards the root causes of disease with preventive emphasis. Treatment of illness and rehabilitation are as important as well. Communities rightly expect treatment service and indeed may be less interested in other services unless accompanied by curative services, and dealing with residual damage of illness through rehabilitation is an essential part of what health care can offer to support functionality and the dignity of life.

Community and Individual Involvement and Empowerment

Communities should be involved in the development of services so as to promote self-reliance and reduce dependence. The community's role must be more than that of responding to services planned and designed from the outside. The people themselves must be key actors in the whole process. The community should be actively involved in the entire process of defining health problems and needs, developing solutions, and implementing and evaluating programs.

Communities should be empowered for greater self-reliance and more active and responsible involvement in improving their own health. This means adopting changes in behavior and life style and understanding and controlling, as far as possible, their social and physical environment. If individuals are to realize their potential for self-reliance, they must take greater personal responsibility for their own and their families' health. The public must be informed and motivated in order to enhance community involvement. Therefore it is crucial that the health system inform communities of the basics of the Health Care approach, of its implications for their own role, of the behaviors to be changed and of the services at their disposal for taking appropriate health action.

Intersectoral Approach/Action for Health

The Ministry of Health recognizes that the Health of a society is closely related to its overall socioeconomic situation and the extent of poverty with in it. There are situations in which health is too inextricably tied to other aspects of development that there will be limited opportunity for advancing either health or development unless progress is made along both lines.

Hence, Approaches to health should relate to other sectors of development. The cause of ill health are not limited to factors that relate directly to health, and the paths to be taken to deal with ill health must not be solely health interventions. Level of literacy, household food security, improved housing, ecological sustainability, more effective marketing of products, building of roads, enhanced roles for women, existence

and accessibility of social infrastructure and services such as water and sanitation, schools and health facilities, etc... have a substantial impact on the health of a population. Also, communities often respond more readily to broad approach to development as opposed to fragmented sector by sector approach. Health goals shall be considered a high priority in the overall development process. The fullest consideration of Health matters shall be made whenever general economic developments are being planned.

The health care system must be enabled to coordinate its actions with other sectors at appropriate level. For example, a health centre or hospital responsible for a sub-zone would need to work closely with the Ministry of Agriculture extension (home economic) workers and other agricultural activities in many ways, including in identifying nutritional problems and finding appropriate solutions, analyzing seasonal relationship between agricultural labour demands and disease incidence (e.g. Malaria), in minimizing environmental health hazards from irrigation schemes.

Decentralization

The Government of the State of Eritrea and hence the Ministry of Health are committed for Decentralization. The Ministry of Health believes that health services shall be provided in decentralized ways with the participation of many decision-makers. However, the Ministry of Health strongly believes that, strengthening of the management capability of zonal and sub- zonal level services is a precondition for effective decentralization. Unless management capacity at the zonal and sub zonal level is built health services fully managed by local authorities could deteriorate.

Decentralization of responsibilities shall also be accompanied with provision of concomitant resources and authority to the zonal, sub-zonal and health facility levels. It should also be recognized that, some health interventions or programs may benefit from a greater degree of centralized direction than others. Hence, the Ministry of Health shall continue seeking to establish an appropriate balance between centralized guidance and local adaptation of policy to fit zone and sub-zone specific realities.

Increasing Cost Effectiveness of Health Care

Cost-effectiveness involves the allocation of resources in such a manner as to yield the greatest benefits. Benefits are measured by the extent to which the health needs of the largest number of people can be met. Cost-effectiveness also implies efficiency in the use of resources. For example, the tasks given to the various levels of health personnel should be delegated in such a way that most problems are handled by the least trained person capable of handling them (as opposed to having colds, for example treated by specialist physicians). In the area of transport this might imply making greater use of public transport, motorcycles and bicycles rather than providing cars for a few. Another example of cost-effective and efficient service is the limitation of drug procurement to a restricted list of "essential" drugs, purchased through a competitive tendering process. Increasing the cost effectiveness and efficiency of health services also requires increasing the share of the existing greater burden of hospitals, with their costly services, by the more peripheral and community based levels of the health care system.

Chapter3: BASIC HEALTH CARE PACKAGE (BHCP)

A. Maternal and Child Health Care and Nutrition

Background and problem analysis

Maternal mortality ratio (MMR) has been reduced from 998/100,000 (Eritrean Demographic and Health Survey, 1995) to 752/100,000 in 2002 (Ghebrehiwet Mismay et al, Journal of Eritrean Medical Association, 1:2-7) and an estimated 450/100,000 (WHO, UNICEF and UNFPA, 2005, WHO World Statistics 2008). Although the improvement is remarkable, the estimated is still high. On the contrary Eritrea “stands tall” with regard to child health as evidenced by an Infant Mortality Rate which reduced from 72/1000 in 1995 to 48/1000 in 2002 and Under-five Mortality Rate from 136/1000 in 1995 to 93/1000 in 2002 (EDHS 2002). Neonatal mortality accounts for approximately half of infant mortality and around a quarter of under-five mortality, hence requires more attention during this HSDDP.

Immunisation coverage for all antigens and the number of children fully immunised before their first year of birth has progressively increased in the last close to two decades. Immunization coverage for the third dose of DPT, Hepatitis B and Homophiles Influenza to children between 12 and 23 months stands at more than 90 percent.

A total of 210 (55.6% of all HFs) in 2007 health facilities were providing delivery services which unlike antenatal services which are provided mainly in health stations and health centres, about 70% of all deliveries were attended in hospitals, 15% in health centres, 12 % in health stations, 4% in MCH and other clinics. These have been complemented by 19 maternity waiting homes which were constructed in the Zobas. Despite all the efforts to improve the maternal health, the proportion of assisted delivery by health professionals in Eritrea is still low at about 36 percent.

Though the Total Fertility Rate (TFR), the number of children a woman would have in her lifetime if she was to experience delivering in her fertility lifetime has declined in Eritrea since the 1995 EDHS from 6.1 children per women to 4.8 children, (a drop of 21 percent). Unwanted pregnancy is still high predisposing mothers and adolescents to unsafe abortion. Maternal death as a result of obstetric emergencies such as haemorrhage, obstructed labour, infection eclampsia and pre-eclampsia, and other unpredictable complications requires further improvement in Emergency Obstetric Care. Time is very important in obstetric emergencies as mothers with severe complications like post partum haemorrhage have only few hours (for PPH two hours) to be assisted and be saved or clients’ condition deteriorates and ends in maternal death.

Adolescent sexual and reproductive health is important component of Reproductive Health as adolescents constitute 21.1% of the total population in Eritrea, and adolescent fertility is important both for social and health reasons. Adolescent girls and boys are becoming sexually active at earlier age. The 2004 National Needs Assessment for Adolescent Sexual and Reproductive Health in Eritrea indicates that 2.5% of adolescents in school age 10 to 14 become sexually active (Faustina Oware 2004), and by the age 15 almost 4% would be sexually active without any preparation and knowledge about sexuality and contraceptives. This situation exposes adolescents to unintended pregnancies, STIs including HIV/AIDS, and other social consequences like school dropouts and early marriage.

Some of the key challenges with regard to providing maternal, newborn and child health are: limited access to emergency obstetric care (EmOC) services; shortage of skilled service providers, particularly midwives, doctors and anaesthetists; low contraceptive prevalence rate; low level of girl’s education; inadequate transport and communication facilities; some harmful socio-cultural beliefs and practices; economic factors due to the time of “no-war-no-peace” situation, etc.

The priority areas of interventions to address above mentioned challenges will be: (1) safe motherhood, (2) prenatal and neonatal care, (3) adolescent sexual and reproductive health, (4) prevention of unwanted pregnancies, (5) reduction of female genital cutting, (6) reduction of domestic & sexual violence, (7) IMCI, (8) internationally accepted EPI strategies, (9) priority interventions on nutrition.

Objective:

1. Reduce child mortality
 - Reduce Infant mortality rate to 29 or lower per 1,000 live births by 2014
 - Reduce Under-five mortality rate 49 or lower per 1,000 live births by 2014
2. Improve maternal health
 - Reduce Maternal Mortality Ratio to 350 or lower per 100,000 live births by 2014.
 - Achieve, by 2015, universal access to reproductive health by 2014
3. Reduce perinatal, neonatal, infant and child mortality by 75% from the baseline by the end of 2014
4. Reduce acute malnutrition rate in children U5 from by 50% by 2014
5. Increase access to Adolescent friendly services and information in schools and health facilities to 50% to reduce unwanted pregnancy and abortion by 50% in 2014.

Strategies

- Health provider knowledge and skill development
- Strengthening the health system
- Skilled attendance at birth
- EmOC service
- Post abortion care and counselling
- Maternal death audits/reviews.
- Counselling and education
- Advocacy Community mobilization and capacity building
- Scaling up reorienting ANC
- Facility based and home based postnatal care of the mothers and neonates/infants.
- Outreach services
- Improving logistics
- Provision of user friendly Reproductive and Sexual Health Service and Information to adolescents and youth.
- Integrated Management of Neonatal and Childhood Illnesses (IMNCI)
- Newborn health and resuscitation
- Immunization
- Growth monitoring and Nutrition promotion
- Vitamin A supplementation
- Family Care Practices

Expected Outputs/Outcomes/Key Indicators

- Infant and under-five mortality rates reduced to below 29 and 49 respectively.
- Proportion of 1 year-old children immunised against measles increased to above 90%.
- Maternal mortality ratio reduced to below 350.

- Percent of skilled attended deliveries by 50% (from current estimate of 36%)
- Contraceptive prevalence rate increased by 100%. , from current 8%.
- Adolescent birth rate sustained at below 20%.
- Antenatal care coverage (at least one visit increased to above 80% and at least four visits increased to above 50%.
- Unmet need for family planning decreased by 50%

- Increase percent of obstetric emergency cases managed in health facility by 50% from the 2008 estimates
- Reduce incidence of fistula by 80 % from the 2009 EDHS estimates
- Reduce incidence of FGM by 15% from 2009 EDHS estimates
- Reduce incidence of anaemia in pregnancy by 50% from 2009 EDHS estimates
- Increase early and exclusive breast feeding from 52% to 75% by 2014
- Increase household utilization of iodized salt to 90%.
- Sustain vitamin A coverage at around 95%.
- At least 50 % of MOH health facilities establish and provide adolescent friendly services
- At least 80% of all primary, junior and secondary schools provide appropriate health information services to adolescents based on the MOH standards by 2014

1. Nutrition

Background and problem analysis

Protein Energy Malnutrition- PEM (under-nutrition) among children and energy deficiency among mothers is a serious public health problem in most developing countries. Eritrea is not exception in this case as has been repeatedly revealed by several surveys (EDHS 1995, EDHS 2002, N-NSS data of the MOH 2001-2004). All zones experience similar pattern of high rates of under-nutrition with no significant seasonal variation.

The micronutrient deficiencies of public health importance in most developing countries including Eritrea are: Iron Deficiency Anaemia (IDA), Iodine Deficiency Disorders (IDD) and Vitamin A Deficiency (VAD). Since recent years, zinc deficiency has been added to this list. These deficiencies generally contribute to growth retardation, interfere with the immune system reducing resistance, increase the risk of morbidity & mortality, cause brain damage and reduced cognitive development in children.

Zinc deficiency has been recognized as one of the micronutrients of public health importance in low-income countries where the consumption of zinc rich foods are inadequate. Deficiency of this nutrient affects the immune system, reduces resistance to diseases especially among children <12 months and causes mental impairment. The magnitude of the problem of zinc deficiency is not yet known in Eritrea.

In order to improve the economy and reduce poverty, the Government of Eritrea has formulated two strategies: The Interim Poverty Reduction Strategy Paper -I-PRSP (GOE, 2004) and the Food Security Strategy-FSS (GOE, 2004). Both strategies recognize nutrition as an input to and an output of the development process and a pivotal indicator in the measurement of the development goal (GOE, 2004). The long-term objective of the PRSP is to attain rapid and widely shared economic growth with macroeconomic stability and steady and sustainable reduction in poverty". The Ministry of Health has also developed a National strategic Plan of Action for Nutrition (Eri-NPAN), which is formulated under the umbrella of these strategies and its aim is to contribute towards the attainment of their goal, which is an overall socio-economic development.

The Nutrition strategic plan is based on following basic principles.

Malnutrition is multi-causal and multi-faceted hence, effective implementation of the nutrition program of the HSSDP could only be realized through a coordinated plan and convergent action of all sectors that directly or indirectly contribute to improving nutrition (multi-sectoral, multidisciplinary & multilevel action).

Improved nutrition is "an input to and an outcome" of complex economic development plan and programs (Food Security Strategy and the Interim Poverty Reduction Strategy (GOE, 2004);

Attainment of the nutrition program goals depends on tackling effectively the underlying and immediate causes of malnutrition, and achieving household food security, adequate health status and adequate "care practices" of the vulnerable population groups (Mothers and children).

The nutrition program identified the following priority interventions:

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- Household Food Security
 - Protection, Promotion & Support to Infant and Young Child Feeding and Care
 - Empowering communities to assess analyses and manage their nutrition problems through the establishment of Community-based and school health and nutrition programs.
 - Prevention and control of Specific Micronutrient Deficiencies (VAD, IDA, IDD and Zinc deficiency)
 - Special Programs: Supplementary Feeding and Therapeutic Feeding
 - Development of Nutrition Information System

Objectives

1. To improve Infant and Young Child Feeding Practices and contribute to the reduction of the prevalence of PEM to the medium level of the WHO medium level cut-off (<25% stunting and <10% wasting).
2. To declare the elimination of IDD from the country by 2014.
3. To reduce the prevalence of VAD among children 6- 59 months from (biochemical) and night blindness among women by 30% in 2014.
4. To reduce the prevalence of anaemia among pregnant women (PW) from the estimated and among children by 30% in 2014.
5. To increase the knowledge and skills of communities and empower them to be able to assess, analyze and act on their nutrition problem
6. To strengthen the National Nutrition Surveillance System by 2011 in order to provide regular and timely information to monitor changing trends in the nutrition situation to enable decision makers and partners taking appropriate actions.
7. To prevent deterioration of nutrition situation among children and mothers under difficult conditions and reduce child mortality resulting from severe forms of malnutrition.

Strategies

- Growth monitoring and promotion activities
- Routine supplementation with vitamin A, iron, zinc
- Food fortification with vitamins and minerals, and regular de-worming
- Improve Infant and Young Child feeding: Breastfeeding promotion and Code for marketing breast milk substitutes
- Increase Micronutrient Supplementation during the bi annual Child Days
- Increase routine iron, folic acid and Vitamin A supplementation to both ANC and Post natal mothers.
- To develop the capacity of the health facilities and community organizations on the management of CB-GMP
- To establish linkage between school and community nutrition program
- To develop and implement effective monitoring and periodic systematic review to continuously assess progress and improve component intervention performance.

Expected Outputs/Outcomes/Key Indicators

- To achieve 90% BF initiation within two hours after delivery by 2012
- To increase the rate of EBF up to 6 months of age from 53% to 70% by 2012
- To maintain at least 90% BF practice for up to 24 months and beyond.

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- To increase the rate of complementary feeding at 6 months of age from 56% to 70% by 2012.
 - To re-vitalize BFHI in the hospitals and health centres where it had started before and establish new ones in all health facilities with maternity services according to the WHO ten steps criteria by 2012.
 - To achieve universal salt iodization by 2014.
 - To Maintain the level of supplementation so far achieved (>90%) in children with two rounds annually
 - To achieve 100% coverage of Vitamin A supplementation to post-partum mothers who deliver in health facility within 6-8 weeks after delivery by 2014.
 - To increase the consumption of vitamin A rich foods in the diet
 - To provide iron supplementation to 100% of pregnant women attending ANC starting at least the 4th month of pregnancy to 2 months after delivery by 2014
 - To increase the consumption iron rich foods
 - To fully fortify DMK and wheat flour produced in the country by the end 2012..
 - To provide supplementary food to malnourished children (<- 2SD) in targeted areas affected by either natural or man-made disasters until the respective situation improves to prevent further deterioration and death from associated factors/illnesses

B. B. Prevention, Control and Management of communicable diseases

Background and problem analysis

Although Eritrea has achieved a remarkable progress in controlling communicable diseases, it still faces a high burden of disease (BoD) from communicable diseases. Around 65% of burden of disease is due to communicable diseases. Peri-natal and maternal health – related problems, as well as diarrheal and Acute Respiratory Infections (ARI), constitute around 50% of the burden of disease share. The high incidence of communicable diseases emphasized the needs for Eritrea to continue focusing on preventive health programs and the provision of appropriate health care services to address communicable diseases and nutrition conditions. HIV/AIDS is not among the top ten causes of out-patient visits and in-patient admissions but has been the first cause of inpatient deaths in adults over the past seven years.

Collectively, the current approaches to prevention and control of communicable diseases include: preventing exposure to the infectious agent; making susceptible individuals or populations immune to the infectious agent; treating infected individuals or populations to prevent illness and transmission of the agent to others; and improving the timeliness and appropriateness of care to symptomatic individuals in order to minimise morbidity and mortality, and in some instances to reduce the likelihood of transmission to others.

Diarrheal diseases, acute respiratory infections, malaria, HIV/AIDS/STI and tuberculosis are among the priority communicable diseases and shall be dealt with more specifically in the strategic and operational plans of the programs.

Malaria morbidity and mortality have dramatically dropped since 1999, both in young children and in the general population. The overall malaria morbidity (in both children and adults) has reduced by 90% from 1999 to 2007, while the overall mortality due to malaria has decreased by 86% from 1999 to 2007. Malaria was the third top cause of in-patient deaths for children in 2000 and the top most killer for adults admitted to health facilities. This has shown a dramatic change in recent years with malaria becoming the seventh top cause of in-patient deaths in children and has disappeared from the list of the first ten top causes of mortality among adult in-patients since the year 2004.

Presently malaria accounts for 4.2% of total outpatient morbidity and 13.2% of all admissions. In 1999, these

figures were 31.5% and 28.4% respectively. The case fatality rate in children in hospitals reduced to 1.4% from 7.4% in 1999. The zonal malaria morbidity reports indicated that the highest morbidity rates were in Gash-Barka zone followed by Debub.

ANC sentinel surveillance surveys conducted in pregnant women and other data pertaining HIV indicate current HIV prevalence in the population at around 0.7 percent. Moreover, surveillance data indicate that in Eritrea HIV prevalence among young (15-24 years old) pregnant women attending antenatal clinics was 3.3% in 2003, 1.8% in 2005 and 0.9% in 2007 with the following geographic variations: prevalence in Maakel Zone of 1.89% followed by Northern Red Sea Zone of 1.76%, while the lowest prevalence was seen in Debub Zone (0.67%) and Southern Red Sea Zone (0.68%). Moreover, it was found to be 1.67% in urban and 0.58% in rural women.

Tuberculosis (TB) continues to be a major cause of morbidity and mortality in Eritrea. TB Prevalence in 2005 revealed that new smear positive tuberculosis was 90/100,000 in individuals over 15 years or an overall TB prevalence of 50/100,000. Policy guideline was developed and distributed to the zones in 2007. Health Station health workers are trained on proper sputum collection from symptomatic and slide fixation. TB promoters are selected and are on training to help the health facilities in early case detection. The key challenge is to increase the detection and cure rates to at least the WHO targets of 70% and 85%, respectively.

Objective

1. Combat HIV/AIDS, malaria and other communicable diseases
 - HIV/AIDS have halted by at below 1% prevalence by 2014 and continue to reverse the spread of HIV/AIDS
 - Achieve, by 2011, universal access to treatment for HIV/AIDS for all those who need it.
 - Have halted by 2014 and continue to reverse the incidence of malaria and other major diseases
2. To reduce each communicable disease prevalence from 2008 status by 50% by 2014
3. To prevent emerging and re-emerging disease epidemics occurrence through 2014
4. To reduce all communicable disease mortality from the 2008 status by 80% by the end 2014
5. To establish a sensitive communicable disease surveillance system operational in all health facility, port of entry and in general population by 2014.

Strategies

- ⇒ Case management – early detection and treatment of communicable diseases;
- ⇒ Enhance the preventive measures to prevent the occurrence of communicable diseases;
- ⇒ Strengthen a sensitive 'communicable disease surveillance' system operational in all health facility, portal of entry and in general population.

Expected Outputs/Outcomes/Key Indicators

Achieve MDG 6 by 2014

- ▶ The prevalence of HIV infection in the general population sustained at less than 1%.
- ▶ The prevalence of HIV infection in the youth aged 15-24 years sustained at less than 0.5%.
- ▶ Condom use at last high-risk sex measured and improved
- ▶ Ensure that 100% of people with HIV infection who are medically eligible are put on HIV/AIDS Anti Retroviral Therapy at the end of 2011 and maintain it.
- ▶ Proportion of population aged 15-24 years with comprehensive correct knowledge of HIV/AIDS measured and increased
- ▶ Ratio of school attendance of orphans to school attendance of non-orphans aged 10-14 years measured and improved

Confirmed malaria related mortality reduced by 50%.

Reported morbidity due to malaria reduced by 30%.
Severe malaria case fatality reduced by 60%
Occurrence of malaria epidemics prevented

Proportion of children under 5 sleeping under insecticide-treated bednets and Proportion of children under 5 with fever who are treated with appropriate anti-malarial drugs sustained at high level and improved further.

- ▶ TB case detection increased from current 40% to at least 70%,
- ▶ TB cure rate increased from current 81% to 90% and reduce death rate to <4% by 2013 (TB)
- ▶ Ensure Lab AFB quality assurance and quality control to 85% DOTS implementing centres by the year 2013.
- ▶ Incidence, prevalence and death rates associated with tuberculosis measured and decreased.

1. Integrated Disease Surveillance and Response

The Integrated Disease Surveillance system (IDSR) has been accepted as the main regional strategy for communicable diseases prevention and control cost effectiveness. Using the strategy, lives could be saved by detecting epidemics at early stages and instituting appropriate control and preventive measures. IDSR in Eritrea function at all levels including communities and involves key stakeholders.

Standard case definitions and action thresholds for the priority diseases have been developed and disseminated to all health facilities in order to improve case detection. Reporting formats (weekly, monthly, immediately quarterly and annual) were revised and harmonised. IDSR bulletin is published and disseminated to stakeholders. Feedback reports about timeliness and completeness of IDSR reporting are disseminated to zones and/or health facilities.

The scope of IDSR, which was limited to strengthening the national surveillance system for communicable disease prevention and control, which will be broadened during the plan period to include Non-Communicable Diseases (NCDs) due to its increasing disease burden in Eritrea.

Objective

- ▶ Ensure a continuous and timely provision of information to the national priority diseases control
Ensure a continuous and timely provision of surveillance data and other information and use of the surveillance information for decision making, epidemic control, monitoring and evaluation of communicable diseases followed by IDSR.
- ▶ Quantifying the burden, trends, and risk factors of CDs
- ▶ To strengthen the capacity of the laboratories and involve them in the surveillance system for confirmation of the disease.

Strategies

- ▶ Involve the community in the detection and implementation of effective public health measure of the national priority communicable diseases and diseases of public health importance (Community based surveillance).
- ▶ Improve the communication systems and the flow of surveillance information between and within levels of the health service systems of the country.
- ▶ Involve all health workers and clinicians at all levels in the detection, investigation, confirmation and control of an outbreak having the same surveillance case definition of the priority diseases. Promote health survey and applied operational epidemiological field research.
- ▶ Laboratory surveillance to confirm the priority diseases
- ▶ Epidemic preparedness and response:
- ▶ Training of health workers responsible for surveillance:
- ▶ Supportive Supervision, Monitoring and evaluation

Expected Outputs/Outcomes/Key Indicators

- ▶ Timeliness of weekly reporting of priority diseases improved and sustained maintained at 80 %

- ▶ Timeliness of monthly reporting of priority diseases improved and sustained at 80 %
- ▶ Proportion of epidemics with case based reports increased by 50%.
- ▶ Proportion of epidemics reported to higher level within 2 days of surpassing the action threshold increased by 50%.
- ▶ Reduce the case fatality rates for epidemic prone diseases to a level below the recommended WHO standard.
- ▶ Reduce the incidence rate of epidemic prone diseases by 50 %
- ▶ Proportion of quarterly IDSR Bulletin disseminated to zones, health facilities and stakeholders maintained at 100%
- ▶ 100 % of health facilities with at least one person trained in IDSR
- ▶ Proportion of epidemics with Lab -confirmed diagnosis increased to 80 %

C. Prevention, Control and Management of Non-Communicable Diseases & Injuries

Background and problem analysis

The top ten leading causes of outpatient and inpatient morbidity in Eritrea in the last decade are acute respiratory infections, diarrhoea, anaemia and malnutrition, skin and eye infection, malaria and HIV/AIDS. Notwithstanding the above mentioned however, non communicable diseases like cardio vascular diseases, diabetes mellitus, hypertension, cancers, liver diseases, blindness disorder, chronic respiratory disease, gastritis and duodenal ulcer, oral dental infection, mental health disorder are emerging as among the top ten leading causes of morbidity and mortality in adults creating a situation where the country is tackling a double disease burden.

The focus of the Ministry in this area will be:

Degenerative conditions, disabilities, and rehabilitative health services.

Among the diseases in this category are: cardiovascular diseases, cancers, diabetes, chronic obstructive pulmonary diseases, musculo- skeletal conditions, and neuro-psychiatric conditions.

The focus of the Ministry will be to increase access to promotive, preventive, curative, and rehabilitative services at all levels for persons with disabilities and degenerative conditions and develop a referral mechanism for these services.

Mental Health and Psychosocial Care

Promote the provision of mental health and psychosocial care at different levels that is, primary (to prevent a disorder/problem), secondary (to address the consequences of a problem, such as war trauma), and tertiary preventions (to reduce the disability caused by a disorder).

Oral/dental health, eye care, and ENT services

To ensure the availability of basic oral/dental, eye care, and ENT services as an integral part of the BHCP, with emphasis on prevention and treatment of the main causes of the diseases.

Care of injuries and emergency

To ensure that injuries and emergency care services are properly addressed and delivered at all levels in accordance with the Eritrean hospital care standards.

The various education and rehabilitation programs include common elements, e.g. counselling on smoking cessation, stopping or reducing alcohol intake, physical activity, nutrition, patient education and optimizing the medical (or surgical or psychiatric) treatment. The following is a specific list of interventions that shall be undertaken by facilities in each of these elements.

Tobacco

- ▶ Identification of smokers and establishing a though smoking history.

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- ▶ Oral and written information to patients on damaging effects and health benefits, and the possibility of smoking cessation.
 - ▶ Advice and recommendation with regard to cessation.
 - ▶ Establishing smoking cessation services or integration of smoking cessation counseling as part of treatment.

Alcohol

- ▶ Identification of patients with harmful and dependent alcohol consumption according to ICD-10 criteria.
- ▶ Oral and written information to patients on damaging effects and health benefits and the possibilities of assistance to stop or reducing consumption.
- ▶ Recommendations for large scale consumers to stop or reduce consumption.
- ▶ Offering brief interventions (for harmful intake).
- ▶ Establish alcohol unit to accept referral for dependent alcohol intake.

Physical Activity

- ▶ Identification of patients with a need for counseling on physical activity.
- ▶ Counseling on exercise in accordance with international guidelines, and follow-up and counseling in connection with subsequent contacts with the department.
- ▶ Establishing systematic training programs for relevant patients (heart and lung patients, diabetes, surgery, psychiatry, overweight and underweight)

Nutrition

- ▶ Identification of undernourished patients- and patients at risk of undernourishment.
- ▶ Initiation of relevant nutrition treatment and continued observation of body weight and food intake through out the patients stay in hospital.
- ▶ Communication of information on discharge (to own doctor, home care , general practitioner).
- ▶ Identification of overweight patients and screening for diabetes and other complications.
- ▶ Counseling on diet and physical training.
- ▶ Establishing of systematic training programs for relevant patients.
- ▶ Secure follow up in the primary level.

Disease Specific Education and Rehabilitation

- ▶ Specific prevention concerns prevention activities addressing specific groups of patients. Patients education and rehabilitation programs are examples of this.
- ▶ Rehabilitation programs that aim to support the individuals own ability to manage diseases shall thus be part of clinical guidelines for several patient groups, not as a supplementary aspect, but as part of treatment.

Objective

1. Prevent and reduce morbidity, disability and premature mortality from chronic non communicable diseases, avoidable blindness, mental disorders, oral dental infection violence and injuries by 50 % by the end of 2014
2. To institute cost-effective interventions of healthcare services based on primary health care principles that target persons with NCDs and strengthen preventive, control and curative measures aimed at reducing morbidity, disability and premature mortality from NCDs by 2014.

Strategies

- ⇒ Capacity building
- ⇒ Resources mobilization
- ⇒ Develop communication strategy for tobacco control, promoting healthy diet, physical activity, and reducing the harmful use of alcohol
- ⇒ Promote operational research.

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- ⇒ Promote healthier life style
 - ⇒ Improve quality of care, including emergency services etc
 - ⇒ Promote care seeking behaviour

Expected Outputs/Outcomes/Key Indicators

- ▶ Integrated specialty clinics that deal with NCDs are established in 20 selected community and referral hospitals by the end of 2014;
- ▶ Increase community awareness on NCDs to 80%;
- ▶ 100% of sub-zobas implementing social mobilization for the prevention and control of NCDs/ conditions;
- ▶ To reduce visual impairment from the estimated 1.35% to 0.9%;
- ▶ 100% of regional referral hospitals with functional mental health units;
- ▶ To increase community access to mental health services by 50%;
- ▶ National policy guidelines on oral health in place and being implemented;
- ▶ 80% of community hospitals and regional referral with well equipped and functional dental units;
- ▶ Awareness of the population on the risk factors and prevention of oral diseases/conditions and cancers increased to 80%;
- ▶ By 2014, 10% reduction of passive exposure to tobacco smoke among the aged from 13-15 years;
- ▶ By 2014, 40% of the regions/zobas will have developed and are implementing cancer control programmes including primary, secondary and tertiary prevention.

D. Cross-cutting health programmes

The cross cutting programs covered in this section include: Environmental Health Services, Health

Promotion and Education, Quality of Care, Support Supervision, Disaster Preparedness and Response and Occupational Health. The background information, objectives, strategies and expected outcomes and/or indicators of each of these programs is presented.

i. Environmental Health Services

Background and problem analysis

African countries including Eritrea continue to face challenges of poor access to safe drinking water, hygiene and sanitation; absent or poorly designed irrigation and storage systems and inadequate or poorly constructed road infrastructure, housing and waste disposal systems. In addition, countries are now faced with new and emerging challenges, including the effects on health of climate change, accelerated urbanisation and air pollution (Libreville declaration 2008). The environment is one of the primary determinants of individual and community health status which might be affected by exposure to physical, chemical and biological risk factors necessitating a community based intervention with a focus on efficient preventive and promotive health services. Over 23% of deaths in Africa estimated at 2.4 million each year are attributable to avoidable environmental risk factors with particular impact on the poorest and the most vulnerable groups (children, women, rural poor, people with disabilities, displaced populations and the elderly).

The burden of disease attributable to unsafe water, sanitation, and hygiene in Eritrea has declined since liberation, mostly because mortality from diarrheal disease has been on the decline nationally mainly due to improved case management interventions, particularly oral dehydration therapy and IMCI programmes, improved access to safe waste disposal systems and safe water supply systems. Access to safe water supply has increased from 16.4 % in 1995 to 67.4% in 2002 and access to basic sanitation from 12.8% to 25.6% as reported in EDHS 2002. Diarrhoea in children under five years old has been the second leading cause of outpatient and inpatient morbidity and inpatient mortality in hospital and health centre in the last decade. In 2007, it accounted for 13% (26% reduction from 2006) of the total inpatient death and 11% (55% reduction from 2006) and 27.3 % (increased by about 10% from 2006) of the total morbidity in outpatient and inpatient respectively in children under-five.

Objective

- ▶ To increase the proportion of people with sustainable access to safe drinking water to 75 percent.
- ▶ To increase the proportion of people with sustainable access to basic sanitation to 55 percent by 2014..
- ▶ To reduce environmental risks and hazards that contributes to the increase of CDs & NCDs
- ▶ To contribute to the reduction of morbidity, mortality and disability among the people of Eritrea through improvements in housing, use of safe water, food hygiene promotion, waste management and control of vectors/vermin.
- ▶ To establish sectoral responsibilities and mandates with improved intersectoral collaboration.
- ▶ To develop strategies, guidelines and legislation (notably on sanitation and food hygiene),
- ▶ To take steps to improve national, zonal and sub- zonal-level monitoring of progress in environmental health and monitoring household hygiene and sanitation practices

Strategies

- ⇒ Increase construction of latrines
- ⇒ Increase refuse disposal pits
- ⇒ Increase public awareness on safe waste disposal
- ⇒ Increase public awareness of safe water utilization
- ⇒ To expand water treatment system

Expected Outputs/Outcomes/Key Indicators

- ▶ The proportion of population using an improved drinking water is increased to 75 percent.
- ▶ The proportion of population using an improved sanitation facility is increased to 55%
- ▶ Safe waste disposal system is promoted by increasing latrine coverage from 12 % to 44% by 2014 (required to achieve target 10 of MDG 7 but very challenging to be achieved)
- ▶ To increase the proportion of safe water consumption from its current status by 20 % in 2014.

ii. Health Promotion and Education

Background and problem analysis

The aim of health education and promotion is to promote positive behaviour change for improvement and maintenance of people's health by facilitating increased social and community participation in health including prevention of disease, reduction of risk factors associated with specific diseases, fostering of lifestyles and conditions conducive to health, and increasing use of available health services. Health Promotion is the process of enabling/empowering people to increase control over, and to improve, their health.

Health education and promotion has successfully been applied as means of combating malaria, HIV/AIDs and vaccine preventable diseases in Eritrea, lessons of which will inform and influence the HSSDP period. Eritrea is one of the developing countries that are confronted by a double burden of disease encompassing infectious diseases and rapidly emerging non communicable diseases. Without due and sustained focus in health promotion, the significant achievements in health indices achieved in Infant, child and maternal mortality since independence of Eritrea in 1991, could be threatened by the burden from non-communicable diseases and other emerging and re-emerging diseases.

Health promotion plays pivotal role in controlling the double burden of both communicable and non communicable diseases that Eritrea is facing at the moment and during this plan period. With this guiding principle in mind, the Ministry of Health has developed a Health Promotion Policy with a general objective of establishing and sustaining a multi-sectoral, society-wide and community-based framework that will guide the development and implementation of integrated interventions for improving the health of people of Eritrea.

Objective

- ▶ Prompting health and preventing both communicable and non communicable diseases through promotion of healthy behaviour.
- ▶ Empowering patients, clients and communities by seeing them as co-producers of the results of preventive, curative and rehabilitative health interventions.
- ▶ Advocate for interventions that reduce risk factors that contribute to communicable and non communicable diseases at all levels and promote positive behavioural change.
- ▶ Strengthen the implementation of multi-level and multi-sectoral behaviour change interventions to address the major causes of morbidity and mortality in Eritrea
- ▶ Ensure that channels of communication are established and maintained for consumers to voice their concerns related to the causes of illness or pre-mature deaths,
- ▶ Encourage social and cultural practices known to prevent the spread of diseases are addressed through IEC and legislation where necessary.

Strategies

- ⇒ Promote individual and community voluntary participation in all aspects of health promotion i.e. planning, implementation, monitoring and evaluation, documentation and dissemination.
- ⇒ Seek the contribution of all players such as mass media for the dissemination of health information to the community, including radio, newspaper and television.
- ⇒ Utilize other channels of social communication such as performing arts, music, story-telling, poetry, folk songs, drama and theatre, that are socially popular and accepted by the community.
- ⇒ Use locally tested and adapted IEC materials, produced with a participatory approach using an appropriate local language.
- ⇒ Define the roles and responsibilities for government, civil society, development partners and national advisory group as they relate to health promotion in the country.
- ⇒ Intensify health awareness and behaviour change for health promotion
- ⇒ Strengthen community capacity for health promotion and improved health service delivery with emphasis on the roles of women and men.
- ⇒ Advocate for participation of political, religious and cultural institutions in promoting health programs.
- ⇒ Strengthen interface between service providers and consumers.
- ⇒ Monitor and evaluate health promotion activities.

Expected Outputs/Outcomes/Key Indicators

- ▶ Achieve 90 percent health awareness level of the population
- ▶ To increase the proportion of villages with trained VHTs to 100 percent by 2012.
- ▶ To increase the proportion of health facilities and community institutions with health promotion materials (IEC) by 40%
- ▶ To increase the proportion of political and religious and cultural institutions promoting health by 50%
- ▶ To increase the proportion of population seeking health services according to national standards by 30%
- ▶ Strengthen health promoting programs of the Media institutions of the Ministry of Health and the Ministry of Education.

iii. Quality of Care

Background and problem analysis

The quality of care and infection prevention was an important component of health care delivery in the past decade. However, during the early years after liberation, emphasis was focused on access to health services, and less on the quality of services. The HSSDP will build on accomplishments of the activities undertaken in the past decade on infection prevention and to improve quality of care, with emphasis on functional scaling up and improvements in quality of services.

Objective: ensure good quality health services given available inputs for maximum outputs and efficient utilisation of resources

Strategies

- ▶ Develop and disseminate standards of quality health services to all health service delivery points;
- ▶ Ensure service providers use the standards and guidelines.
- ▶ Establish and strengthen regular supervision system using agreed checklists.
- ▶ Facilitate establishment of internal quality assurance capacity at all levels of health services;
- ▶ Enhance awareness and understanding among the health workers of the importance of quality health services.
- ▶ Involve the community in quality of care

Expected Outputs/Outcomes/Key Indicators

- ▶ Quality of service improved
- ▶ Effectiveness and efficiency of inputs maximized
- ▶ Standards of quality developed and disseminated
- ▶ Regular supervision system established
- ▶ Training and awareness raising programs undertaken on quality of care and cost of poor quality.
- ▶ Communities involved in assessment and improvement of quality of care

iv. Support Supervision

Supervision, Monitoring and Mentoring is an essential aspect of health system, and important in determining quality of health services and the efficiency of the system. Those undertaken also had many gaps. Hence, the supervision and other mentoring visits were not regularly undertaken, and require a lot of improvement in terms of impact on improvement of quality, effectiveness and efficiency at the National Referral, Zonal and Sub-Zonal Health Facilities.

Objective:

To provide regular and appropriate supervision of the different entities of the health sector as a means to ensuring efficient and equitable delivery of good quality health services.
Develop and Disseminate key support supervision guidelines.

Strategies:

- ▶ Supervision and Monitoring to the Zoba branch offices by the decision makers and other technical experts in the headquarter.
- ▶ Supervision and Monitoring to the Sub-Zoba health offices by the Zonal Health Management Teams.
- ▶ Supervision and Monitoring of Hospitals, health centres and health stations by technical health workers from higher facilities, decision makers and other technical experts and in the headquarter and the Zonal health management teams ;
- ▶ Supervision of central programmes within MoH and other central institutions;

Expected Outputs/Outcomes/Key Indicators

- ▶ Generic, program and level specific guidelines and checklists and other tools prepared and utilized
- ▶ Support Supervision undertaken and reports written regularly
- ▶ Quality improvement as the result of support supervision.

v. Rehabilitative Health Care

Background and problem analysis

This element of health care encompasses conditions that result in deprivation or loss of the needed

competency. This may be due to damage or harm done to or suffered by a person before or after birth. The conditions include physical disability, deafness, blindness, and learning disability.

The causes of hearing impairment and blindness are largely preventable. The population of 60 years and above has increased from 4 % to 6 % between 1991 and 2002. Despite increasing demand, geriatrics services are non-existent. Currently, only a small proportion of People with Disability have access to rehabilitation services.

Eritrea has adopted community-based rehabilitation (CBR) as the main strategy to reach People with Disabilities with services. Death from road traffic crashes has more than doubled over the past 10 years. Globally, the cost of accidents lies between 1-2% of the world's Gross National Product. The amount of money that is being paid by the National Insurance Corporation for Eritrea (NICE) due to road traffic crashes to cover insurance costs of fatalities, injuries, and vehicle damage is also huge.

Objectives

- ▶ Improve, quality of life, dignity, productively and self reliance of disabled individuals, through promotive, preventive (including secondary and tertiary prevention), curative and rehabilitative health programs for persons with disability.
- ▶ Establish rehabilitative health care system
- ▶ Develop policy, guidelines, strategic and operational plans for rehabilitative health care.
- ▶ Build capacity of health workers through training programs in various aspects of rehabilitative health care
- ▶ Equip health facilities with the necessary equipments, premises and personnel for rehabilitative health care
- ▶ Collaborate with the Ministry of Labour and human welfare and other Governmental sectors and international partners to strengthen rehabilitative health care
- ▶ Undertake surveys to measure and monitor the burden of disability

Strategies

- ▶ Put in place preventive, promotive and rehabilitative interventions to reduce mortality morbidity or disability caused by injuries
- ▶ Strengthened orthopedic workshops for production of assistive devices
- ▶ Dissemination of guidelines on the handling of trauma, disabilities and rehabilitation
- ▶ In collaboration with the Ministry of Labour and Human welfare, undertake Intensive mobilization of communities for early detection and proper treatment of disorders of sight and hearing in order to minimize complications.
- ▶ Enhanced collaboration with the Ministry of Labour and Human welfare with respect to the Community Based Rehabilitation initiative.
- ▶ Improve documentation and data of the types and burden of disability.

Expected Outputs/Outcomes/Key Indicators

To reduce hearing impairment by 30 percent.

To reduce visual impairment by 50%.

To increase provision of assistive devices to persons with disabilities who need them

In collaboration with the Ministry of Labour and Human welfare, to reach 60 % of the population with messages on Disability Prevention and Rehabilitation.

vi. Disaster Preparedness and Response

Background and problem analysis

This program aims to improve emergency preparedness and response both at national, zonal and sub zonal levels in order to promote health, prevent disease and reduce death among the affected population. During the Ethiopian invasion between 1998 and 2000, surveillance for potential epidemics was actively pursued in the Internally

Displaced Persons (IDPs). During this plan period, the planning for emergencies with health implications shall be included within the national, zonal and sub zonal action plans.

Objective

- ▶ To improve emergency preparedness and response both at national, zonal and sub zonal levels in order to promote health, prevent disease and reduce death among the affected population.
- ▶ To establish a health disaster risk reduction coordination mechanism linked to national structures
- ▶ To ensure inclusion of planning for emergencies with health implications within the national, zonal and sub zonal action plans.

Strategies

- ▶ Explore needs based health risk reduction strategies in consultation with relevant government agencies;
- ▶ Establish coordinating mechanism at all levels of care;
- ▶ Provision of appropriate health services in conflict and post conflict situations.
- ▶ Establish early warning system for outbreaks and disasters.
- ▶ Ensure adequate timely response through disaster preparedness.
- ▶ Provisions within the national, zonal and sub zonal action plans for management of emergencies and disasters

Expected Outputs/Outcomes/Key Indicators

- ▶ A health disaster risk reduction strategy is developed and in use by end 2011;
- ▶ Functional accident and emergency units established in 2010.
- ▶ Health disaster risk reduction coordination mechanism established by 2011.
- ▶ A reaction/response period for emergencies and confirmed epidemics of less than 48 hours.
- ▶ Case fatality rate, acceptable to the level of emergency.

vii. Occupational Health

Background and problem analysis

Due to the current and anticipated increments in industrial, agricultural, mining, port etc. development activities in Eritrea, threats from emerging and re-emerging diseases, there is need to scale up interventions in Occupational Health. There is also need of promoting Occupational Health services and practices in workplaces with special emphasis on the high risk Sectors.

Objectives

- i) Establish a system of provision of occupational Health services, both for the formal and informal sector
- ii) Develop guidelines for occupational health
- iii) Increase awareness for all branches of Eritrean Workers Federation, employers and other concerned bodies about Occupational Health

Strategies

- ▶ All health facilities delivering occupational health services by 2014
- ▶ Awareness building for occupational health services

Expected Outputs/Indicators

- ▶ 50% of all health workers in the formal sector accessing Occupational Health services
- ▶ 30% of all health workers in the informal sector accessing Occupational Health services
- ▶ All branches of Eritrean Workers Federation, employers and other concerned bodies are made aware and educated about Occupational Health

Chapter 4: HOSPITAL, EMERGENCY and INTEGRATED ESSENTIAL MEDICAL CARE and REFERRAL NETWORK

A. HOSPITAL SERVICES

Background and problem analysis

Hospitals represent the top end of a continuum of care providing referral services for both clinical and public health conditions beginning from the base of the Primary level to the apex of the tertiary level of health service in Eritrea. In Eritrea, hospital services are provided by public hospital service and private wing in public hospitals. The degree of specialization varies between hospitals. The hospitals are divided into four groups according to the level of services available and their responsibilities: National Referral Hospitals, Zonal Referral Hospitals, 2nd Contact Zonal Hospitals and Community Hospitals.

Eritrea approaches its second decade after its liberation with approximately 22 hospitals, 6 of which are national specialised referral hospitals, 6 general zonal referral hospitals whilst the remainder are sub-zonal or community hospitals. With a total number of 3909 beds in 2007, there were 11.3 beds per 10,000 people (for the estimated national population of 3.46 million). About 45% of the total hospital beds were available in NRH and Maakel. Bed utilisation rate in 2007 was about 55% (see zonal patient per bed pattern in figure 5 below) whilst the average bed occupancy rate at national level was 45.3 % with increasing trend since 2004.

The hospital sector in Eritrea is an important part of the health system, providing both basic and advanced care for the population. To enable the hospitals to deliver quality services and contribute to better health outcomes of the people, it is crucial that they are adequately staffed and financed, properly maintained and well managed. On the other hand, there is a need to strike a balance so that hospitals do not consume a disproportionate share of the health sector's total resources.

This remains the challenge for Eritrea. At present, the hospital sector is the largest employer as well as the biggest spender in the health sector. Currently, the hospitals in Eritrea employ 72 percent of the country's doctors, 55 percent of the nurses, and close to 50 percent of the associate nurses. The 7 national referral hospitals alone absorb 41 percent of all doctors and 32 percent of the nurses. From 2000 to 2005, the expenditure on hospitals (both recurrent and capital) was more than 50 percent of the total health budget.

In addition to performing the curative, health promotive and disease preventive activities appropriate to their level, all hospitals are expected to provide support/supervision to the level below i.e. 2nd contact Zonal Hospitals and Community Hospitals to lower level health facilities (health centers and health stations) in the sub zone; Zonal Referral to 2nd contact Zonal Hospitals and Community Hospitals and Health centers in the Zone; and National Referral to Zonal Referral through specialists program. All hospitals shall maintain linkages with the communities they serve.

In order to improve the performance the national and zonal referral hospitals will incrementally be strengthened to improve internal efficiency and to contain costs and quality of services. This transformation is expected to gradually introduce decision rights of management in financial management for funds generated and block grants received from the Exchequer and retained by the facilities and managed using government financial regulations, acquisition of medical supplies and equipment, food and other operation and maintenance obligations. This flexibility nonetheless needs to link utilisation of hospital services to financial and other resource contributions.

The Mission of the National Referral Hospitals include: be primer in quality care delivery, provide high quality diagnosis and treatment services, ensure as the highest level of referral centre, and be engaged as clinical learning

centre

Objectives

- ▶ To provide highest quality of comprehensive, efficient and compassionate primary, secondary and tertiary health care services.
- ▶ To serve models to other health care facilities in clinical excellence, efficient facility management and quality service delivery.
- ▶ To establish Evidence Based Medicine
- ▶ To improve access to high quality health care services
- ▶ To build capacity of health care providers through training
- ▶ To work on continuing professional development
- ▶ To ensure high standards of ethical behaviour and quality
- ▶ To improve the performance of the National and Zoba referral and Community Hospitals
- ▶ To introduce and strengthen private wing/section in public hospitals as required
- ▶ To incrementally strengthened hospital management
- ▶ To improve internal efficiency and to contain costs and quality of services.
- ▶ To gradually introduce decision rights of management in financial management for funds generated
- ▶ To link utilisation of hospital services to financial and other resource contributions.

Strategies

- ▶ To ensure delivery of optimum appropriate and good quality diagnostic, curative and rehabilitative hospital services in all hospital settings which are accessible, affordable by the population and equitably distributed all over Eritrea.
- ▶ Provision of modern hospital services that are efficient; well equipped, staffed, managed and that meet client needs in the country.
- ▶ Provide highest quality diagnosis and treatment services.

Expected Outputs/Outcomes/Key Indicators

- ▶ Access to high quality health care improved
- ▶ Capacity of health care providers built
- ▶ Performance of hospitals improved
- ▶ Hospital financing improved
- ▶ Hospital management improved
- ▶ Evidence Based Medicine established
- ▶ Private wing/section introduced and strengthened in public hospitals as required

B. EMERGENCY MEDICAL CARE AND REFERAL NETWORK

Background and problem analysis

Emergency medical services address sudden medical conditions that require immediate intervention to avoid death or disability. The defining feature in emergency medical service is that outcomes are extremely time dependent. Emergencies commonly arise from sudden injuries, obstetric complications, as well from neglecting slow and chronic conditions. Thus the diseases burden that is relevant to emergency medical services overlaps with conditions such as communicable diseases and maternal conditions, road traffic accidents, and chronic diseases such as Diabetes, , CVD and Asthma, etc....

Emergency medical services comprise a continuum of care from first contact with patients until their conditions are stabilised. This includes making rapid assessment to determine which interventions are most appropriate, ranging for prompt transportation to a facility best suited for treating the condition, to providing immediate emergency care. In places where traditional telephones are not available, radio phones or, increasingly, mobile phones can be used. Communication especially in remote areas with challenging terrains is important for coordinating care between the site of initial care and the facility where the patient will receive treatment, and it also serves to support first responders by allowing them to consult with other medical personnel and receive expert advice at the emergency

site.

Emergency medical services shall be strengthened through establishing rapidly mobile emergency squad, using well equipped ambulances, fast boats and helicopters as deemed necessary.

Ideally emergencies shall be characterized by an arrival of a paramedical team in an ambulance. Efforts shall be made towards this end for use as necessary, however, for pragmatic reasons the key is not to emulate some ideal technology but to improve the organization and planning for emergency care, which can be done at reasonable cost and would improve the utilization of resources, the care received, and the outcomes, using the following interventions

- ▶ First, arranging for rapid transportation to a health facility that is still-equipped or overburdened serves little purpose. Hence, the presence of an effective health care system is important.
- ▶ Second, rapid forms for communication can make a big difference in survival. In places where traditional telephones are not available, simple radio phones or, increasingly, mobile phones can be used. Communication is important for coordinating care between the site of initial care and the facility where the patient will receive treatment, and it also serves to support first responders by allowing them to consult with other medical personnel and receive expert advice at the emergency site.
- ▶ Third, proper planning can reduce response times and improve care. Sometimes this is as simple as assuring that accurate maps are available and that houses are numbered and streets have signs, so that for instance ambulances do not fail to find the location of an emergency call.
- ▶ Fourth, transportation has to be accessible at a short notice. Ambulances with stretchers are the ideal, but many other means will do, including use of private, public, commercial and military vehicles and even carts.
- ▶ Fifth, efforts shall be made for the Ministry of Health to have fast access to helicopters and fast boats for quick arrival of emergency squad and rapid pickup and transfer of emergency victims, if and when deemed necessary.

Referral guidelines that are based on the set norms and standards shall be developed regularly, revised and widely disseminated to health professional and health facilities at all levels. They shall also define acceptable criteria for referral of patients for advanced treatment abroad.

Objectives

- ▶ To equip health facilities with the necessary, , premises, human resource and other facilities to handle emergency at every level, facilities to handle emergency at every level.
- ▶ To equip some selected health facilities with the necessary, equipments, premises, human resource and other facilities to handle emergency of sea and air.
- ▶ To strengthen continuum of care for emergency cases.
- ▶ To strengthen transportation and communication system for emergencies
- ▶ To improve health standard compliance by all health care providers;
- ▶ To strengthen the referral system guided by BHCP-based health standards and norms.

Strategies

- ▶ Provide regularly reviewed BHCP-based referral guidelines for all level that ensures a continuum of patient/client care.
- ▶ Improved case management of common illnesses and injuries
- ▶ Public education on prevention and control of common illnesses and injuries.
- ▶ Capacity building of health workers to handle emergencies at every level
- ▶ To work closely with the Ministry of Transportation and Communication, National Insurance Corporation of Eritrea, and Traffic police and other to reduce the level and consequence of vehicle

and other traffic accidents.
Expected Outputs/Indicators

- All health units providing basic and life saving measures to the victims and some selected facilities including for sea and air emergencies.
- Establishing a functional and well equipped ambulance system
- Establish functional Accident and Emergency Units in 100% of Regional Referral Hospitals and 80 of community hospitals by 2014.
- Train key health workers in emergency response in all hospitals.

C. INTEGRATED ESSENTIAL MEDICAL CARE

The National Health Policy calls for the assurance of basic essential clinical care, including emergency care,

and care of common illnesses and injuries. The essential clinical care involves the management of communicable and non communicable disease conditions to achieve the best possible outcome. The Integrated Essential Clinical care component cuts across most health care components. In the past years, basic essential clinical care focused on improving provision of basic medical services. During this plan period greater effort will be put on improving the quality of the services provided and emergency care in addition to consolidating the essential clinical services and widening the scope of the services. This shall be achieved through more systematic training of service providers and provision of essential medicines, medical equipments and supplies.

Objectives

- ▶ To optimize competence, performance, and utilization of health care facilities at all levels.
- ▶ To Strengthening Referral System
- ▶ To improving accessibility of care according to need.
- ▶ To assure continuity and improved quality of care at all level.
- ▶ To strengthen communication within the health care system.
- ▶ To facilitating prompt diagnosis and treatment.
- ▶ To provide guidance for continuum of care.

Strategies

- ▶ Improving case management of common illnesses and injuries
- ▶ Public education on prevention and control of common illnesses and injuries.
- ▶ Implementing the referral system with strict adherence to minimum packages of care for all levels of services.
- ▶ Capacity building of health workers through training programs on integrated health service delivery.

Expected Outputs/Indicators

- ▶ Referral System strengthened
- ▶ Accessibility and unitization of care improved
- ▶ Continuity and quality of care improved
- ▶ Communication within and among health facilities improved
- ▶ Quality of diagnoses and treatment of illnesses improved
- ▶ Clinical and managerial capacity of health workers improved

Chapter 5: BHCP ESSENTIAL SYSTEMS

A. Human Resource for Health Development and Management

As a result of the resolute efforts to develop an appropriately trained human resource for health to manage the prevailing health challenges from liberation, the sector has witnessed a steady flow of trained professional both in numbers and range.

On-going restructuring of the health delivery system especially the planned upgrading of the health centres into community hospitals and the double disease burden necessitates a re-definition of required quantities, qualities and skills mix of human resources for health in Eritrea.

In spite of the major achievements in developing the required HRH over the last decade and a half, health worker distribution has been skewed towards urban areas, which shall be addressed using different strategies and incentives to staff who work in defined rural, remote and under-served locations. The allowances are incentives meant to encourage and retain the affected staff in those locations, to ensure provision of health care to the needy

In-service trainings (IST) are vertically driven mainly by programmes such as HIV/AIDS, TB, malaria control, etc. These training programmes are largely un-coordinated, with a narrow specific disease focus operating in a situation where monitoring of the training quality and quantity is. Post basic training programmes for upgrading staff competences are offered including distance learning for nurse-tutors. Selection for these courses gives equal opportunity for all staff including those who serve in remote areas.

The key challenges with regard to HRH development and management are: weak human resources management and development practices; poor access to up-to-date information on human resources available; inadequate numbers and skills of health workers; uneven distribution of workers at different levels of service delivery, unclear career pathways and structures for some categories of staff, unattractive conditions of service and remunerations; inadequate supportive supervision; lack of integration of services between the public and private sectors.

Objectives

- ▶ To increase availability of skilled human resources at all levels by 2014 as per the set norms and improve their management.
- ▶ Ensure that human resource planning is coordinated across the health sector and is based on the best available data;
- ▶ Establish a consensus-based standard staffing norms of all levels of health facilities
- ▶ Recruit as many skilled health professionals as resources allow and ensure their equitable distribution;
- ▶ Strengthen and improve coordination of the in-service training system;
- ▶ Improve ways of attracting and retaining staff particularly in remote rural areas
- ▶ Improve staff productivity and performance by developing performance management capacity;
- ▶ Strengthen regulatory role of certification and registration of health professionals;
- ▶ Strengthening general management skills at all levels; , both for intervention specific and comprehensive managerial skills;
- ▶ Develop an effective HR information system
- ▶ Strengthen and ensure career structure and human resource development system with specialization and sub-specialization training for all types of health professionals and all levels of health categories.

Strategies

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- ⇒ Strengthen and integrate HRH planning system;
 - ⇒ Streamline and strengthen in-service training (IST) and continuing staff development approaches;
 - ⇒ Improve HRH management systems and practices.
 - ⇒ develop and maintain accurate and up-to-date staffing database (eventually to cover the entire sector);
 - ⇒ carry out regular analysis of staffing data and revise the staffing projections in the light of changing service needs;
 - ⇒ increase the use of non-traditional forms of training (e.g. distance learning) to cover all the Zobas;
 - ⇒ Develop and design up-to-date job descriptions and job titles for all major positions to be used in conjunction with the annual performance appraisal system;
 - ⇒ develop and test affordable and feasible packages to attract and retain target groups, and monitor impact of attraction and retention packages;
 - ⇒ Provide orientation for managers to use already developed and tested annual performance appraisal scheme;
 - ⇒ Increase access to management development programs for current and potential managers;
 - ⇒ Develop guidelines for transfer and placement of health personnel

Expected Outputs/Key Indicators

- ▶ Annual consolidated HRH plan and annually reviewed database by end of each year;
- ▶ BHCP-based recruitment, deployment & retention mechanism in use.
- ▶ Strengthen and integrate HRH planning system;
- ▶ in-service training (IST) and continuing staff development approaches Streamlined and strengthened;
- ▶ HRH management systems and practices improved
- ▶ Accurate and up-to-date staffing database (eventually to cover the entire sector) developed and maintained;
- ▶ Regular analysis of staffing data and the staffing projections carried out and periodically reviewed in the light of changing service needs;
- ▶ The use of non-traditional forms of training (e.g. distance learning) increased to cover all Zobas;
- ▶ Up-to-date job descriptions developed and designed for all major positions to be used in conjunction with the annual performance appraisal system;
- ▶ Affordable and feasible packages to attract and retain target groups developed and tested, and their impact of attraction and retention monitored;
- ▶ Orientation for managers to use already developed and tested annual performance appraisal scheme provided;
- ▶ Access to management development programs for current and potential managers increased;

B. Pharmaceuticals Procurement, Supply and Logistics Management

Background and problem analysis

Since the Liberation of Eritrea one of the key policy priorities has been to assure constant availability of safe and efficacious essential medicines and health supplies and associated logistics required for the effective delivery of the priority programmes. The sector has also aimed at developing a harmonised, sustainable and efficient procurement and supplies management system through the establishment of Pharmecor. Pharmaceutical sub-sector management is guided by the National Medicines Policy under the stewardship role of the division of medicines and medical supplies of MOH.

Pharmecor was established in 1965 as a semi-government agency with a mandate for procurement including receipt of donations, storage and distribution as sole distributor for public sector and the private sector in the periphery. Pharmecor plans and procures once a year for supplies funded by government and approximately 3 times a year for externally funded supplies to respond to programme specific requirements using appropriate internationally acceptable tendering procedures. Pharmecor procures items provided in the essential medical list which is regularly revised. The last review was undertaken in 2005 and is currently due for review. Pharmecor fulfils its mandate by applying a 15% service charge which it utilised for personnel emoluments and planned operations and maintenance requirements. The organisation is annually audited and provides from time to time a dividend to government from

income surpluses

Each zone has adequately equipped medical store with staff that include a chief pharmacist. Zonal and hospitals stores requisition quantified supplies on a “pull-basis” determined by facility/zonal budgetary ceiling. The orders are filled by Pharmecor and collected by zonal stores for health stations and health centres and separately by hospitals. Zobas pay directly for received items to Pharmecor and as and when a justified need arises to requisition beyond the set budgetary ceiling, MOH absorbs the difference in expenditure.

Some of the key challenges faced are the shortage of headquarter staff, lack of a registration software for pharmaceuticals and non-pharmaceuticals.

This HSSDP aims at assuring constant availability of safe and efficacious essential medicines, medical supplies and associated logistics required for the effective delivery of the National Minimum Health Care Package nationwide. It also aims at strengthening the harmonized, sustainable and efficient procurement and supplies management system. A comprehensive approach to medicines and medical supplies that included drug policy development, coordinated selection and quantification of needs, procurement, storage and distribution, rational use, quality control and regulation is in place and has to be well maintained. This is in general guided by the existing national procurement procedures, which has long lead time in implementing it and is cumbersome to all stakeholders involved in the process. This in principle follows the Local and International competitive bidding or direct shopping process depending on the sources, amount and availability of funds.

Efficient and effective delivery of clinical care is highly dependent on the availability of appropriate equipment and accessories, in good functioning order which are properly maintained and calibrated, so as to ensure accurate diagnosis. The list of essential equipment and accessories has already been defined for the health station, health centre and hospitals and used for inspectorate purposes.

Objectives

- ▶ Ensure the availability and accessibility to safe, effective and quality pharmaceuticals and medical equipments and supplies in line with the national & international standards.
- ▶ Ensure an uninterrupted and adequate supply of quality pharmaceuticals
- ▶ To ensure that the medicines, medical supplies, and logistics are of standard quality and managed properly at all levels;
- ▶ To ensure that the procurement and disbursement procedures of the MOH is in line with national guidelines;
- ▶ To ensure that medicine , medical supplies, medical equipment, and all necessary logistic items are utilized effectively and efficiently;
- ▶ To establish dependable medical equipment maintenance, provision of preventive maintenance, in order to assure quality and functionality of medical equipment at each level of services.
- ▶ To ensure that preventive maintenance of medical equipment is well introduced and practiced.
- ▶ To ensure that preventive maintenance of medical equipment is well set in place and practiced.

Strategies

- ⇒ Supporting and developing national pharmaceutical industry to produce essential medicines.
- ⇒ Expanding and improving storage facilities in all institutions to meet the increasing demand.
- ⇒ Modernizing (computerizing) the inventory management system and communication technology (computerized logistics Management Information System).
- ⇒ Develop guidelines and establish computerised inventory control systems in all zonal warehouses; Purchasing /producing products of acceptable quality
- ⇒ Develop and maintain a well coordinated, reliable and transparent procurement and supply system that is acceptable to all stakeholders;
- ⇒ Develop and enforce procurement management regulations and guidelines at all levels, based on the National Procurement regulations and guidelines;

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- ⇒ Provide training and capacity building in procurement and supplies management at all levels;
 - ⇒ Ensure that the Drug Supply and other Logistic Budget Line is established for funding drugs, medical supplies, and logistics required by the health sector at all levels;
 - ⇒ Establish dependable medical equipment installation, repair and preventive maintenance system

Expected Outputs/Outcomes/Key Indicators

- ▶ Achieve greater than 85% proportion of essential medicines available in stock all the time.
- ▶ National pharmaceutical industry supported to produce essential medicines.
- ▶ Storage facilities in all institutions expanded and improved to meet the increasing demand.
- ▶ The inventory management system and communication technology (logistics Management Information System) Modernized and computerized.
- ▶ Guidelines developed and computerised inventory control systems establish in all zonal warehouses;
- ▶ Quality of Purchased and/or produced products ensured
- ▶ A well coordinated, reliable and transparent procurement and supply system developed.
- ▶ Procurement management regulations enforced.
- ▶ Training provided in procurement and supplies management at all levels
- ▶ Drug Supply and other Logistic Budget Line is established

C. Biomedical Engineering

Background and problem analysis

Biomedical Engineering was established during Italian the Italian occupation to respond to all medical engineering problems faced by the then service giving facilities. During Ethiopia occupation its capacity was undermined and was made to be limited to minor maintenance work. After independence it has received due attention and some steps were taken to strengthen the Unit, which include:-

- Adequate space was designated
- Training was given to improve capacity
- Expatriate professionals were recruited as a way of transfer of technology.

However, despite these efforts the improvement shown was not up-to the desired level. Hence, the Ministry of Health launched assessment of the Unit to overhaul it and is taking the necessary steps to strengthen it further.

Objectives

- ▶ To ensure that medical equipment and instruments are available for provision of health services and that they are in good working condition in reference to accuracy, safety and effectiveness.
- ▶ To ensure availability of spare parts to undertake preventive maintenance and repair of medical equipments.
- ▶ To ensure availability of skilled human resource to undertake preventive maintenance and repair of medical equipments.
- ▶ To strengthen the managerial and operational capacity of Biomedical Engineering.

Strategies

- ▶ To prepare the Biomedical engineering service not only as a service giving but also as centre of excellence in the field.
- ▶ To introduce effective Medical Equipment Management System at all levels.

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- ▶ To build capacity both in manpower and maintenance tools.
 - ▶ Establish Maintenance workshop in Regional referral Hospitals.
 - ▶ To introduce effective preventive maintenance activities and inventory system.

Expected Outputs/Outcomes/Key Indicators

1. National Guideline for the Medical Equipment Management is adopted.
2. Capacity and performance of BMEU is further improved.
3. Work environment in relation to medical equipment is further improved.
4. Preventive maintenance practice is routinely conducted by medical equipment end-users at target hospitals.
5. Maintenance Workshop is established in six Zonal Referral Hospitals to handle minor problems.
6. Medical Equipment Inventory database is introduced.

D. National Medicines Administration/ Regulation

Background and problem analysis

As a regulatory and administrative body, of the Ministry of Health, for drugs and other medical supplies, the National Medicines Administration (DRA) regulates the quality of pharmaceuticals and medical supplies that enter, and that are produced in, the country.

The National Medicines Administration (DRA) ensures that the public has access to quality, safe, efficacious, and affordable pharmaceuticals and medical supplies including advice in using them rationally. The National Medicines Administration shall contribute directly towards public health through quality assurance and is responsible for regulating pharmaceutical industry. This is to ensure that pharmaceutical products conform to acceptable standards of quality, safety, and efficacy before they are registered; and that all premises and practices employed to manufacture, store and distribute the product comply with the required standards (National & International) until they are delivered to the end users. In collaboration with concerned authorities, the National Medicines Administration shall also enforce the related laws and regulations of the Ministry.

The National Medicines Administration shall also ensure a patient-focused service by introducing a functional pharmaceutical care at all levels of service. The ultimate goal is to ensure provision of optimum drug therapy, both by contributing to the manufacture, supply and control of medicines and related products, and by providing a reliable information and advice to those who prescribe or use pharmaceutical products.

Objective

- ▶ To ensure the safety, efficacy and quality of medicines, including traditional medicine practices.
- ▶ To improve the enforcement of the existing drug laws and regulations
- ▶ To develop an efficient and effective pharmaceutical services
- ▶ To ensure that the manufacture, importation, sales supply, management and use of pharmaceuticals, medical supplies, cosmetics, and health care products are conducted according to the existing policies ,regulations and guidelines
- ▶ To ensure that the patients undergoing treatment in the public health care institutions of the Ministry of Health receive “ acceptable pharmaceutical care”.
- ▶ To ensure that public education in rational use of medicines is continually improved.
- ▶ To achieve greater than 50% proportion of traditional practitioners registered

Strategies

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- ⇒ Evaluation and registration of medicines prior to marketing
 - ⇒ Licensing manufacturers, importers, wholesalers, and retailers of medicines and medical supplies.
 - ⇒ Monitoring for adverse drug reaction arising from their use (by establishing a functional pharmacovigilance centre).
 - ⇒ Ensuring the quality of drugs entering the country and produced in the country by strengthening of the National Drug Quality Control Laboratory.
 - ⇒ Monitoring quality of medicines through market surveillance and other quality control programs
 - ⇒ Formulating new legislations while reviewing and amending existing ones when ever necessary.
 - ⇒ Enforcement of medicines and medical supplies related laws and regulations of the Ministry.
 - ⇒ Intensifying enforcement at Customs entry points.
 - ⇒ Establish ethical criteria and guidelines for the promotion and advertising of medicines, widely disseminated and ensure compliance;
 - ⇒ Promoting rational use of medicines.
 - ⇒ Establishing standard formulary and procedures for use in all hospitals and primary level health facilities.

Expected Outputs/Outcomes/Key Indicators

- ▶ Medicines registered and evaluated prior to marketing
- ▶ Importers, wholesalers, and retailers of medicines and medical supplies licensed and controlled
- ▶ Adverse drug reactions monitored
- ▶ Quality of drugs entering the country and produced in the country ensured
- ▶ Quality Control Laboratory strengthened.
- ▶ Quality of medicines monitored.
- ▶ New legislations formulated and existing ones reviewed and amended
- ▶ Drug or medicine and medical supplies related laws and regulations of the Ministry enforced
- ▶ Ethical criteria established and guidelines for the promotion and advertising of medicines, widely disseminated and compliance ensured.
- ▶ Regulate and control advertisement of drugs, medical supplies and health services in the mass media (such advertisements may be done only upon written permission from the Drug Administration/Regulatory body in the MOH).

E. Procurement and Supplies Management System

Background and problem analysis

A comprehensive approach to medicines and medical supplies that included drug policy development, coordinated selection and quantification of needs, procurement, storage and distribution, rational use, quality control and regulation is in place and has to be well maintained. This HSSDP aims at assuring constant availability of safe and efficacious essential medicines, medical supplies and associated logistics required for the effective delivery of the Health Care system as described in section B of this chapter.

This HSSDP also aims at strengthening the harmonized, sustainable and efficient procurement and supplies management system.

This is in general guided by the existing national procurement procedures, which has long lead time in implementing it and is cumbersome to all stakeholders involved in the process. This in principle follows the Local and International competitive bidding or direct shopping process depending on the sources, amount and availability of funds. The institutional capacity of the procurement system needs to be strengthened further especially for the procurement and disbursement of logistics to health facilities.

Objectives

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1. To ensure the constant availability and accessibility of key logistical items required for the provision of efficient and effective health care at all levels;
 2. To ensure that supplies, and logistics are of standard quality and managed properly at all levels;
 3. To ensure that the procurement and disbursement procedures of the MOH is in line with national guidelines;
 4. To ensure that all properties of the Ministry of Health are well registered in computerized system and regularly monitored and updated.

Strategies

Develop and maintain a well coordinated, reliable and transparent procurement and supply system that is acceptable to all stakeholders;

Disseminate the procurement procedure document to all concerned through regular meetings and workshops;

Develop and enforce procurement management regulations and guidelines at all levels, based on the National Procurement regulations and guidelines;

Provide training and capacity building in procurement and supplies management at all levels;

Carry out regular inventory of available equipments, supplies and other properties of the Ministry of Health

Expected Outputs/Outcomes/Key Indicators

- ▶ Availability and accessibility of key logistical items required for the provision of efficient and effective health care at all levels ensured.
- ▶ Supplies and logistics are of standard quality and managed properly at all levels;
- ▶ Procurement management regulations and guidelines at all levels, based on the National Procurement regulations and guidelines enforced
- ▶ All properties of the Ministry of Health are well registered in computerized system and regularly monitored and updated.
- ▶ Inventory of available equipments, supplies and other properties of the Ministry of Health undertaken regularly

F. Infrastructure Engineering

Background and problem analysis

Planning of health infrastructure needs to be embedded in the overall strategy for the development of the health sector. In 1991, there were 16 old hospitals,, 4 health centres, and 106 health stations. Almost all of them required full scale rebuilding not just maintenance. Because of this status of health facilities, health services were not accessible and of poor quality. The Ministry of Health did not have enough office buildings at all levels to start with. All of the training institutions did not have enough buildings.

After independence, MOH with full support of the Government and international and bilateral partners constructed new hospitals, health centres and health stations. During the last ten years, national and regional referral hospitals were newly constructed and made operational. So far there are 26 hospitals 52 health centres and 180 health stations

The number of health facilities that were built in the past 18 years after the liberation is more than the total number of health facilities that were built in a full century prior to the liberation (an increase of more than 100 percent).

Concomitantly the Ministry of Health faced a tremendous challenge of providing the necessary human, financial and material resources for effective running of the newly constructed and expanded health facilities. There were 1.09 health facilities per approx 10,000 (1:9155) people in Eritrea in 2007 with the current population size, the

following zones having the lowest number of health facilities per 10,000 people: Debub (0.75) followed by Anseba (0.77) and SKB (0.86). DKB (2.23) followed by Maakel (1.66 excluding the NRH) and Gash Barka (1.21) on the contrary had the highest number of health facilities per 10,000.

These new and old health facilities should regularly be maintained, upgraded or rehabilitated to cope up with the increasing demand. This requires a sustained culture of planned preventive maintenance with the necessary capacity and capabilities especially at zonal level with adequate guidance and supportive supervision from MOH headquarters. A health facilities data base to serve as a source of information for development of a capital investment programme will be a key priority.

Objective

- ▶ To significantly improve the availability, distribution and condition of appropriate essential infrastructures at all levels so as to improve equity of access to and quality of essential nation wide health services;
- ▶ Construct new ones based on need and regularly maintain the existing health facilities.
- ▶ Develop Master Plan for the Health Area Complex around the MOH Headquarter that currently include:- the headquarter of the MOH, the Orotta Medical surgical, the Orotta Pediatric, the Orotta Maternity , the Orotta ENT hospitals; the Orotta School of Medicine and Dentistry, The National Health Library, the Department of HRD and Distance Education Center, the National Health Laboratory, The National Blood Transfusion Center, The Office of the Minister, PHARMECOR, the Postgraduate Medical Education, the College of Nursing and Medical Technology, Property and stores and Medical Engineering and the ex-Leprosy hospital.
- ▶ Provide reliable water supply, sanitation and health care waste managements to existing facilities;
- ▶ Improve access to source of energy for all levels of health care facilities;
- ▶ Provide health facilities with communication means;

Strategies

- ⇒ Establish a health infrastructure database system that would provide essential information on the status of each health facility at all levels of care;
- ⇒ Review the infrastructure standards and define the appropriate sizes and types of health facilities for the different levels of care;
- ⇒ Develop a detailed Health Infrastructure Development Plan, consistent with the overall national health policies, strategies, health needs and priorities, paying particular attention to under-served areas.
- ⇒ Strengthen management capacity of health infrastructure and establish a sustainable maintenance program at the national and regional levels;
- ⇒ Strengthen the existing engineering unit to a level that it will be self-sufficient in all sense;
- ⇒ Strengthen the infrastructural aspect of health facilities so that they could cope up with high demand for specialized health services;
- ⇒ Conduct need assessments, set priorities, and ensure that health facilities are equitably distributed nationwide;
- ⇒ Construct health facilities especially in the hard-to-reach areas in order to increase accessibilities to walking distance;

Expected Outputs/Outcomes/Key Indicators

- ▶ Health infrastructure database system established
- ▶ Infrastructure standards reviewed and defined
- ▶ Health Infrastructure Development Plan developed
- ▶ Master Plan for the Health Area Complex around the MOH Headquarter developed

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- ▶ Management capacity of health infrastructure strengthened and a sustainable maintenance program established
 - ▶ Existing engineering unit strengthened
 - ▶ Needs assessments for setting priorities undertaken
 - ▶ New facilities constructed and existing ones maintained based on needs assessment and set priorities

G. Laboratory and diagnostic services

The role of laboratory and other diagnostic services within the health system has progressively increased due to their vital necessity in mounting evidence-based intervention to reduce the burden of communicable diseases (especially HIV/AIDS/TB and malaria) and to respond to the increasing burden of non-communicable diseases.

Laboratory services

Background and problem analysis

Eritrea's commitment towards strengthening laboratory services as contained in Resolution AFR/RC58/R2 (Yaounde, Cameroon) has resulted in the existing national infrastructure that is rapidly expanding as a policy priority to the lowest level of health facilities.

Laboratory infrastructure is adequately equipped, has good electricity and water supply, good supply chain system for reagents, consumables and equipment, a well organised infection control and occupational safety system, an efficiently coordinated blood transfusion system that has been in operation from 1999, a well functioning quality assurance system at the central blood transfusion centre and more critically a competent and dedicated laboratory personnel.

The laboratory network between the Zones and National Health Laboratory needs to be strengthened further. There is also need of developing clear roles and responsibilities for the different players at all levels. Standard operating manual to ensure quality of operations and testing guidelines for some critical conditions such as HIV/AIDS is required.

During the plan period, a laboratory and other diagnostics strategic plan will be developed that will enable provision prompt and accurate evidence for decision-making by clinicians providing BHCP at all levels clearly describing roles of players, services provided and time-bound requirements to provide these services. This will include the development of an integrated national standard operating procedures manual for all laboratory tests at all levels. A quality assurance system will be established at the national reference laboratory similar to that of the central blood transfusion centre. With the on-going expansion of the facility based services in national referral and zonal hospitals blood banks will include adequate equipped laboratory and blood donation and their required administrative space. Blood transfusion services will also be extended to community hospitals and selected health centres

Objective

- ▶ To enhance laboratory and diagnostic capacity and/or strengthen laboratory and diagnostic networking system for early diagnosis of communicable and non-communicable diseases at all levels by 2014;
- ▶ To establish a sustainable laboratory supplies system as part of the Essential Medicines and Health supplies management, that will ensure steady availability of laboratory equipment, reagents and supplies at all levels.
- ▶ To consolidate and strengthen the National Laboratory Quality Assurance Scheme and establish laboratory linkages with laboratories in developed countries and other countries in the region so as to ensure an effective sustainable laboratory referral system.
- ▶ To provide stewardship, supportive supervision, coordination and management of laboratory

services at all levels.

Strategies

- ⇒ Develop and maintain integrated national standard operating procedures manual for all laboratory tests at all levels;
- ⇒ Strengthen quality assurance system at all levels to ensure adherence to protocols and standard operating procedures;
- ⇒ A database for medical imaging equipment is established and maintained based on a needs assessment;
- ⇒ Integration/inclusion of procurement plan of laboratory and other diagnostic consumables with overall procurement plan for essential medicines and health supplies;
- ⇒ Strengthen coordination and management of laboratory services.

Expected Outputs/Key Indicators

- ▶ National Medical Laboratory Strategic Plan developed mid 2010 and implementation reviewed mid-2012;
- ▶ Laboratory protocols and standard operating procedures updated by mid-2010 and reviewed biannually;
- ▶ Quality assurance system and guidelines developed and implemented by end 2010 and reviewed biannually;
- ▶ Laboratory monitoring and evaluation system developed and implemented by mid 2010.

G. Medical imaging services

Background and problem analysis

The Medical Imaging services, mainly found at the hospital level are important in the provision of emergency and non-emergency care. They contribute to efficient and quality care and may lead to lower stay in hospitals. In the past years, a lot of effort was made to cater for investment in X-Rays, Ultrasound scans, CT scans and other equipment for imaging and diagnosis, in the new national and Zonal referral hospitals. In most community hospitals and the specialized national referral hospitals, however, the equipment is often lacking or broken down as a result of years of use/lack of maintenance. Phased technological upgrade through procurement and maintenance of necessary equipment for the different levels of care shall be undertaken.

Medical imaging is important in the provision of the BHCP as it provides necessary diagnostic data for clinical decisions and policy guidelines at national and international level. An average 70,000 (86% being outpatient) patients per year received imaging services in the last four years which is predominantly provided in hospitals. Effort was made in the past to equip national and zonal referral hospitals with X-Rays, ultrasound scans, CT scans and other equipment for imaging and diagnosis. Community hospitals and specialised national referral hospitals however have inadequate equipment when often times are broken down as a result of years of use/lack of maintenance. Phased technological upgrade through procurement and maintenance of necessary equipment for the different levels of care will therefore be undertaken.

Objective

- ▶ To provide quality, cost effective and safe medical imaging and radiation therapy support at various levels of health care.
- ▶ To generate information and build a database on the status of imaging and radiation therapy in the health facilities.
- ▶ To procure, install and utilize appropriate imaging and radiation therapy equipment for the health facilities.

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- ▶ To establish an effective management structure in the MoH to provide stewardship, supportive supervision, coordination and management of Medical Imaging and radiation therapy services at all levels.

Strategies

- ⇒ Develop a national medical imaging and radiation therapy strategy;
- ⇒ Establish a national radiation therapy unit;
- ⇒ Develop and maintain protocols and standard operating procedures for management of medical imaging and radiation therapy services;
- ⇒ Develop and implement a plan for procurement, installation and maintenance of equipment and integrate into national plan;
- ⇒ Strengthen the existing logistics management systems for consumables (developers, fixers, chemicals etc);
- ⇒ A database for medical imaging equipment is established and maintained based on a needs assessment;
- ⇒ Promote public awareness on the hazards of radiation.

Expected Outputs/Outcome/Key Indicators

- ▶ A national medical imaging and radiation therapy strategy developed by mid-2011;
- ▶ Protocols and standard operating procedures for management of medical imaging and radiation therapy services developed and in use by end 2011
- ▶ National radiation therapy unit is functional by mid-2013;
- ▶ A database for medical imaging equipment and supplies is established and maintained based on a needs assessment by end 2011.

H. Blood transfusion services

Background and problem analysis

The Eritrean National Blood Transfusion Service (NBTS) which was established in 1999 has the capability and capacity to test all donated blood for transfusion transmissible infections including HIV, Hepatitis B and Syphilis. NBTS has adequate storage facilities consisting of 6 blood bank refrigerators with functional temperature monitoring facilities capable of holding up to 1,000 blood units at a time. Blood is transported by mobile collection teams to the Centre and by ambulances to hospitals in cold boxes with thermometers. Dedicated storage facilities for blood and reagents are present in 50% of zonal hospitals. 25% of hospital blood banks however, lack temperature monitoring of storage conditions.

Objective

- ▶ To provide safe and adequate quantities of blood and blood products for treatment of all patients who are medically in need.
- ▶ To expand the Blood Transfusion Infrastructure to operate adequately within a decentralized health care delivery system to the Zones.
- ▶ To achieve and sustain the annual blood collection necessary to meet the blood requirements of all patients in the hospitals throughout the whole country
- ▶ To test all blood for Transfusion Transmissible Infections (TTIs) and operate an effective, nation-wide Quality Assurance program that ensures security of the entire blood transfusion process.
- ▶ To ensure continuous education and training in blood safety

Strategies

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- ⇒ Provision of adequate and safe blood supply nation-wide;
 - ⇒ Expand the blood transfusion infrastructure to operate adequately within a decentralised health care delivery system to the zones to meet requirements of hospitals throughout the whole country;
 - ⇒ Expand blood transfusion services to all hospitals and selected health centres;
 - ⇒ Strengthen QA program by recruiting appropriate staff, reviewing standards and ensuring continuous quality control/audit of the blood transfusion activities;

Expected Outputs/Key Indicators

- ▶ Annual collection of 8,000 safe blood units;
- ▶ An effective support supervision as well as systematic monitoring system is established and maintained.
- ▶ Blood Transfusion Services in all community hospitals and selected health centres initiated.
- ▶ Advocacy for increased blood donation, mobilization of stakeholders.
- ▶ Strategies for blood donor selection, education, counseling, care and retention of safe donors for repeated donations improved.
- ▶ Adequate supplies for blood collection and storage.
- ▶ Laboratory competence maintained.
- ▶ Quality control/audit of the blood transfusion activities ensured.
- ▶ Continuous education and training in the use of blood and blood products for medical staff provided.
- ▶ Prospective donors and community educated on blood safety

I. Legal Affairs

Background and problem analysis

Medicine, for its most part is governed by common universally accepted principles with minor country or locality specific differences. Accordingly Eritrea has adopted various international treaties, conventions and standards and uses them as a guide for the implementation of those common principles.

Almost all Eritrean parent codes such as Eritrean civil code, penal code etc... contain health-related provisions in their respective chapters. The rights of a patient to consent, physical integration, confidentiality etc are among the provisions in the civil code. Extra contractual liability that covers a considerable part of the civil code governs the duties and liabilities of medical professionals as members of other professions. A medical contract in Public and Private sector, which governs the rights and duties of such institutions, is incorporated in contractual part of the civil code.

The penal code specifies certain medical conducts as crime. The main reference for designation of such acts as crime would be the culture, in its broader sense, of the society. This code has given due consideration to public health. It has a chapter on offences against public health. Its principal provisions include offences like spreading of human and epizootic diseases; contamination of water, pastureland and food. Culpable infringement of preventive and protective public health measures, production, making and distribution of poisonous or narcotic substances; manufacture, adulteration and sale of injurious or damaged products or food stuffs etc are also addressed in this chapter.

Infringement of curative provisions is another chapter that, inter alia, includes provisions on unlawful delivery of poisonous or dangerous substances. Offences against life or person including life of unborn are also part of health related provisions of this code.

Apart from the above mentioned health-related provisions contained in the parent codes, Eritrea has promulgated many health specific legislations. A number of health related regulations, public notices, directives and circulars that support the implementation of policies and these proclamations have also been enacted (see Annex 1). The Ministry has also formulated a number of policies, guidelines, and protocols.

The legal and regulatory system encompasses all health actions and actors in the health system of both the public and private sectors. It covers the framing of all the laws, regulations and policies governing the health sector and ensuring compliance with them. The HSSDP outlines strengthening of public sector oversight while promoting private initiatives.

There exist several health related laws and specific health policies and guidelines in Eritrean health system (Annex 2) that enable oversight by MOH. Nonetheless, numerous gaps abound which may affect effective implementation of the HSSDP without comprehensive legal framework for BHCP and maintenance of ethics incorporating change in technological, social and economic status of the country.

The over all objective of the legal affairs is to ensure appropriate laws and regulations governing the behaviour of all actors in the health system in place and enforced in the interest of the population of Eritrea.

Objectives

- ▶ To review and develop the relevant legal instruments that will govern and regulate health and health-related activities in the country, in order to ensure that the principles and objectives of the National Health Policy are attained.
- ▶ To promote enforcement of laws, proclamations and regulations related to the health sector.
- ▶ To identify areas requiring revision/amendment of laws, proclamation and regulations
- ▶ To formulate new legislations while reviewing and amending existing ones as necessary.
- ▶ To gain approval of the relevant laws
- ▶ To publish and disseminate the laws
- ▶ To assist regulatory and other bodies of the Ministry in all aspects of legal affairs.
- ▶ Initiate preparation of strategic 5 year plan and annual operational plan on legal affairs.
- ▶ To strengthen working relationship with the Ministry of Justice, police and other sector that play active role in formulating and/or enforcing legal affairs.

Strategies

- ▶ Strengthen the office of legal affairs
- ▶ Up-dating existing public health laws and regulations.
- ▶ To developing new laws and guidelines as needed
- ▶ To Communication and dissemination the existing laws and guidelines
- ▶ Strengthening mechanisms for implementation of health laws and regulations.
- ▶ To build capacity of health professionals and officials on legal affairs to promote prevention of crimes and unethical practices and to enforce the existing laws, proclamations and regulations.

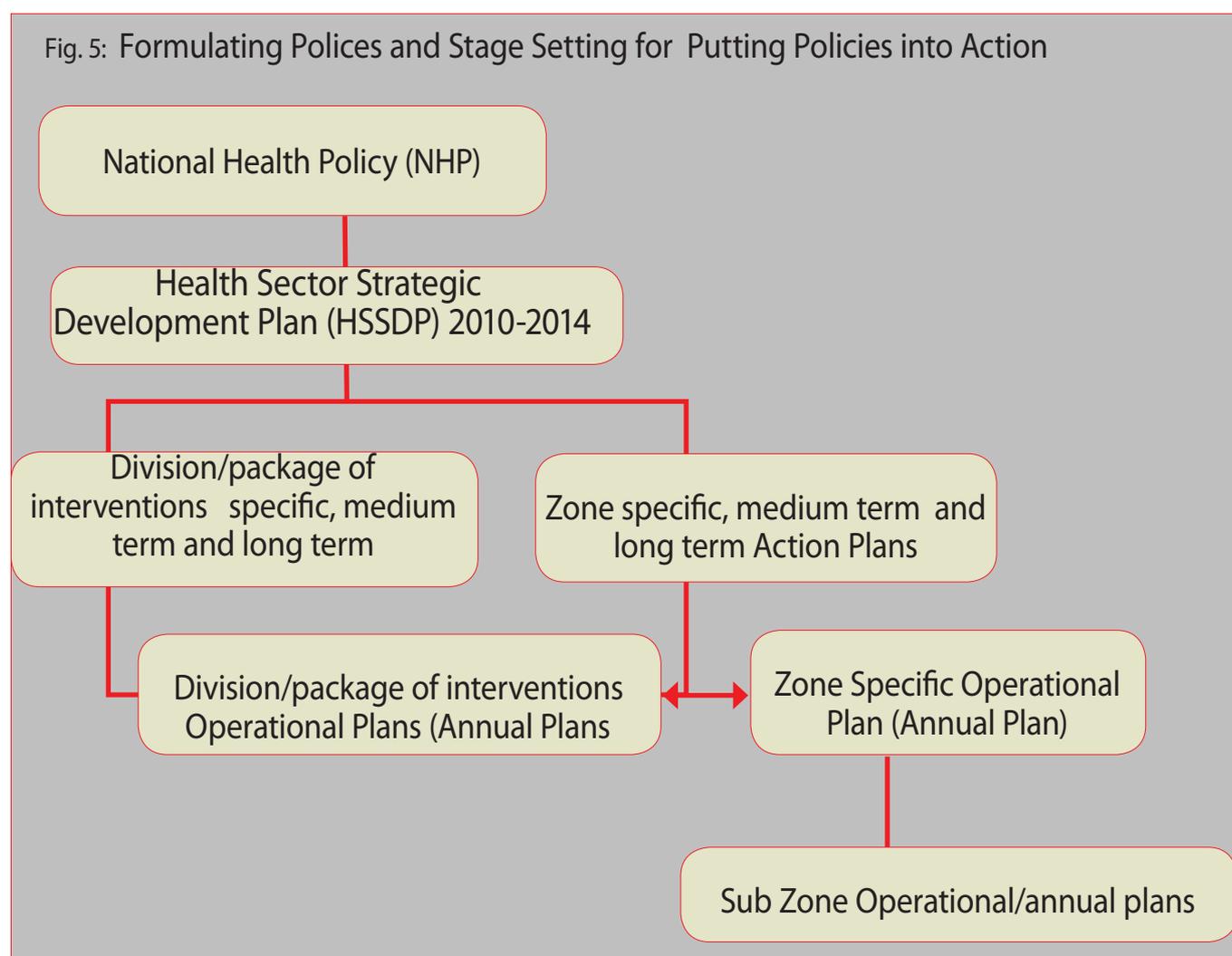
Expected Outputs/Key Indicators

- ▶ Enforcement of laws, proclamations and regulations related to the health sector.
- ▶ Areas requiring revision/amendment of laws, proclamation and regulations identified.
- ▶ Laws, proclamation and regulations that require revision/amendment reviewed or amended.
- ▶ New legislations formulated
- ▶ Gain approval of the revised and BHCP relevant health laws
- ▶ Regulatory and other bodies of the Ministry assisted in all aspects of legal affairs
- ▶ Working relationship with the Ministry of Justice, police and others strengthened
- ▶ Strategic 5 year plan and annual operational plan on legal affairs prepared.
- ▶ Capacity of health professionals and officials on legal affairs improved

Chapter 6: SECTOR PLANNING, MONITORING & EVALUATION

Health Sector Planning, Monitoring and Evaluation are essential aspects of health system, and important in determining quality of health services and the efficiency of the system. Health Sector Planning, Monitoring and Evaluation, as an important component of the health system, which aims at providing cost-effective and evidence-based guidance in identifying health problems; setting health priorities, strategic and operational planning, resources allocation and also in policy reviews.

As shown in figure 5, although Health Sector Strategic Development Planning is a key step for setting the stage to put polices into action, only implementation can put polices into action. Health Sector Strategic Plans are not adequate by and on themselves, even to set the stage for putting plans into action. To do so, HSSDP has to be followed by Division (or Package of Interventions) at headquarter, Zonal and Sub-Zonal levels:- long term, medium term and operational Action Plans. During this HSSDP period, efforts shall be made to strengthen planning process at every level, from the headquarter to the Sub-Zonal and Health Facility level.



The Ministry sees Health Sector Planning, Monitoring and Evaluation as a set of tasks to be carried out continuously starting from the process of planning to implementation. Ongoing monitoring of progress should be seen at least as important as end stage retrospective evaluation. The system must be able to provide decision makers at all levels evidence-based data for planning and program management.

Each of the objectives and strategies indicated in this HSSDP have performance indicators for five years. Periodic performance indicators of the sector have been developed to assess progress towards meeting the objectives of improved service delivery within the sector.

It is worth highlighting that these indicators have been selected to provide a spread across the main areas of health and health care. However, it is also acknowledged that these core indicators do not presume to capture every aspect of health. The health sector and the health services are very complex and hence the indicators are proxy for indicating the direction of change. These indicators shall further be detailed to include wider scope of coverage in the intervention/package specific and zone specific operational, medium term and long term action plans.

To generate relevant information, The Ministry shall ensure the setting up of planning, monitoring and evaluation systems, standardized guidelines, tools, and continuous capacity development at all levels. It shall also ensure community involvement in the process of data generation through expansion of community based-surveillance and the use of processed data in decision making at community level as they are part of the health system at grass root level.

In line with the sector policies, HSSDP, guidelines and management tools and protocols, the planning, Monitoring and Evaluation of the implementation of this Strategic Development Plan will be conducted through appropriate existing and new M&E systems, procedures and mechanisms already in place. M&E is a continuous process. It has to provide decision makers at all levels evidence-based data for planning and program management.

A. Planning and budgeting

Background and problem analysis

Programme success is determined by the quality and capability to implement operational plans whose vision and overall direction is determined by the national strategic plan. In this regard, Zoba (inclusive of hospitals) health operational planning will be the cornerstone of decentralisation. The ZHMT's planning, budgeting and monitoring capacity building therefore, will be a key priority. Operational plans need to comply with the following key criteria:

- ▶ Be linked to resource mapping at the appropriate level which includes money received from all financing sources
- ▶ Approved by the relevant local government authority.
- ▶ Comprehensive (covering all relevant activities in the level or program of the operational plan. The Zoba level operational plan shall include activities of relevant NGOs, private sector and donor-funded activities at the Zoba level.

Objective

- ▶ To prepare quality and timely HSSDP cycles, Zonal and program strategic plans cycles and annual operational plans.
- ▶ To strengthen strategic and operational planning capabilities at all levels in compliance to the National Development Planning Framework.
- ▶ To ensure that quality of services is improved and provided at all levels of the system;

Strategies

- ⇒ Establish a system of continuous preparation for HSSDP cycles, Zonal and program strategic plans and annual operational plans.
- ⇒ Develop a system of continuous monitoring and periodic evaluation

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- ⇒ Design an interactive top-down and bottom-up planning process as per the National Development Planning Framework.
 - ⇒ Develop the necessary capacity for planning, monitoring and evaluation at all levels.
 - ⇒ Regularly revise and update planning, monitoring and evaluation guidelines

Expected Outputs/Key Indicators

- ▶ A system of continuous preparation for HSSDP cycles, intervention/package specific and Zonal operational, medium term and long term action plans, developed and established
- ▶ A system of continuous monitoring and periodic evaluation developed and functional.
- ▶ An interactive top-down and bottom-up planning process as per the National Development Planning Framework designed.
- ▶ The necessary capacity for planning, monitoring and evaluation at all levels developed.
- ▶ Planning, monitoring and evaluation guidelines regularly revised and updated.
- ▶ A system of provision of feedback of the results of monitoring and evaluation to implementers and health managers at all developed and established

B. Health Management Information System

Background and problem analysis

A comprehensive HIS assessment was conducted in 2007 which revealed strengths and weakness valuable for improving the existing system. Eritrea has developed a well functioning health management information system (HMIS) with a good culture of data collection and reporting, but it faces challenges of lack of an HIS policy and legal framework, absence of core national health indicators as well as an absence of a single HIS repository which is further exacerbated by scattered HIS related offices. These assessment results form the basis of strategies that aim to maximise the strengths and minimise the weakness of HMIS.

Routine health information is complemented by the demographic and health surveys, household surveys, vital statistics and national registration activities which are coordinated by the National Statistics Office (NSO) of the Ministry of National Development.

Objective

- ▶ To provide accurate, relevant, complete, and timely health information for decision makers, implementers and other HMIS data users.
- ▶ To enhance availability and accessibility to quality information and information technology
- ▶ To strengthen data collection, analysis, dissemination and utilization at all levels.
- ▶ To support health service planning, implementations, supervision, monitoring, evaluation and decision making at all levels.

Strategies

- ⇒ Establish a central and zoba-based Health Data Repository that consolidates health data from all the sources and creates a platform for sharing of health data and other relevant data for decision-making;
- ⇒ Review of existing reporting tools to limit paper based records;
- ⇒ Develop standards and level specific manuals for data management to improve the quality and consistencies of health information;
- ⇒ Review and develop appropriate legal framework for health information
- ⇒ Conduct supportive supervision at all levels of the system;
- ⇒ Strengthening of Information and Communication Technology Management System (ICTMS) for health care delivery through making the database more flexible and user

- ⇒ Introduce website net work in the ministry (e.g. to expand telemedicine/ tele-health for the delivery of health services and tele-consultation in the country.
- ⇒ Improve the capacity to measure health status indicators, prediction/projection and outcomes;
- ⇒ Ensure that information gathered is shared and properly utilized with good feed back by all concerned
- ⇒ Integration, monitoring and evaluation of the National HIS;

Expected Outputs/Key Indicators

- ▶ Central and zoba-based repository
- ▶ Appropriate legal framework for health information developed
- ▶ A central and zoba-based Health Data Repository established; that consolidates health data from all the sources and creates a platform for sharing of health data and other relevant data for decision-making;
- ▶ Existing reporting tools reviewed to limit paper based records;
- ▶ Standards and level specific manuals for data management developed to improve the quality and consistencies of health information;
- ▶ supportive supervision at all levels of the system conducted;
- ▶ Information and Communication Technology management system (ICTMS) for health care delivery strengthened through making the database more flexible and user
- ▶ Website net work developed in the ministry (e.g. to expand telemedicine/ tele-health for the delivery of health services and tele-consultation in the country.
- ▶ The capacity to Measure health status indicators, prediction/projection and outcomes improved;
- ▶ Information gathered is shared and properly utilized with good feed back by all concerned
- ▶ Integration, monitoring and evaluation of the National HIS;

C. Sector Monitoring and Evaluation

Background and problem analysis

Monitoring and evaluation (M&E) is a vital stewardship tool that requires adequate, relevant, reliable and timely collected, compiled and analysed information on National Health Sector Strategic and Development objectives, targets and activities implementation status. M&E therefore, is an important decision-making tool for the purpose of improving overall management, to ensure optimum use of resources and to make timely decisions by: (i) identifying emerging trends and anticipate future needs; (ii) resolving constraints and/or problems of implementation; (iii) determining priorities for expenditures; (iv) providing information for educating the public and (v) helping in setting health research agendas.

Monitoring and evaluation process using different information sources will have the following purposes;

- ▶ Ensuring achievement of NHSSDP objectives
- ▶ Justify the budget for implementation of NHSSDP
- ▶ Framework for sector accountability.

In order to strengthen the monitoring capacity of MOH a list of limited number of indicators (impact, selected outcome, access, quality, efficiency and financial indicators) which will be regularly measured for the purpose of strategic level decision-making will be developed as part of NHSSDP but allowing regular modification through the annual operational planning process and NHSSDP mid-term reviews. In compliance to the on-going decentralisation process however, a larger set of indicators will be used for management at the zoba and sub-zoba levels to enable local level operational decision-making. Development of a single performance report at all levels in this regard therefore, will be hierarchical with a larger set of operational indicators at the lower levels for implementation decision-making, whilst only a set of selected strategic monitoring indicators are submitted to the higher levels

Scheduled supportive supervision will be conducted and incorporated in the operational plans of the different levels to include quarterly supportive visits by a higher level to the next level using a guideline. The output of each

supervisory visit will be a summary report which will be made available to all Heads of Department by Department of PHC and a feedback to the DHMT report on findings and national interventions.

The Monitoring and evaluation system shall use various sources of information for monitoring progress towards the achievement of the objectives and to evaluate achievements, drawbacks and impact of programs. The Ministry of Health in collaboration with the National Statistics office is currently undertaking (beginning of 2010) the third Eritrean Demographic and Health Survey (EDHS). The 2010 EDHS is using a very large sample size to collect extensive information including a relatively precise data on maternal mortality ratio and HIV sero prevalence. The fourth round EDHS is planned to be undertaken in 2015. The timing of these two EDHS rounds is fortunate for the implementation period of this HSSDP because the third round EDHS will provide us with reliable population based baseline data while the fourth round shall provide us with end-term evaluation data for the implementation period of this HSSDP.

Besides the above mentioned population based EDHS data, depending on the nature of the programs and interventions carried out by the sector at all levels, the monitoring and evaluation process will also be by getting information from various other sources of information including:

- ▶ The information gathered by HMIS of the MOH Head quarters and Zonal Branches
- ▶ Quarterly progress reports of the pertinent programs
- ▶ Annual progress reports of the programs or related interventions
- ▶ Annual Health Sector reviews reports
- ▶ Information from Surveillances of health problems both at the communities and health facilities levels;
- ▶ From consolidated reports of the ministry against the set out sector indicators;

Objective

- ▶ To provide decision makers at all levels evidence-based data for planning and program management.
- ▶ To strengthen sector performance tracking based on HSSDP indicators.
- ▶ To undertake ongoing monitoring of progress and sector performance
- ▶ To undertake mid term and end stage evaluation of programs and sector wide approaches.

Strategies

- ⇒ Development and regular revision of an agreed sector set of performance indicators;
- ⇒ Quarterly operational performance review meetings all levels of a Zoba and MOH strategic performance review meeting at national level as per monitoring guidelines;
- ⇒ In depth thematic assessment dependent on emerging trends and to anticipate future needs;
- ⇒ Annual Sector Performance Report based on list of indicators, analysis and ad hoc in-depth thematic studies for priority health issues;
- ⇒ Annual Stakeholder strategic performance review meeting;
- ⇒ Develop and regularly revise supportive supervision guidelines for all levels with a focus on EHP;
- ⇒ A sector mid-term review will be carried out 2½ years into implementation of NHSSDP with the aim of assessing achieved outputs and outcome vis-à-vis the set objectives to inform the next stages of roll-out and to the end-term evaluation after 4½ years;

Expected Outputs/Outcomes/Key Indicators

- ▶ Evidence-based data provided to decision makers at all levels for planning and program management.
- ▶ Sector performance tracking based on HSSDP indicators undertaken.
- ▶ Ongoing monitoring of progress and sector performance Undertaken.
- ▶ Mid term and end stage evaluation of programs and sector wide approaches.
- ▶ Mid Term Assessment of achieved outputs and outcome vis-à-vis the set objectives to inform the amendments required during the second half of the implementation period of the HSSDP.

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- ▶ End stage Assessment of achieved outputs and outcome vis-à-vis the set objectives to inform the finalization of the preparation of the next cycle of HSSDP stages.

D. Health Research

Background and problem analysis

Research is a critical tool for evidence based policy and decision-making. It provides an informed basis for guiding and rationalising implementation of the health sector strategic plan. Health research is a vital element for evolving rational approaches for solving specific health problems many of which have multi-factorial causes embracing social, behavioural and economic determinants.

As the sector is faced with a myriad of challenges such as the double burden of disease, the urgent need to enhance efficiency of facility-based health service, the need to make health care financing more fairer, amongst many others, there is a dire need to consistently seek pragmatic and achievable solutions. An evidence-based prompt solution for operational issues means continuous improvement of service delivery which is one of the key policy priorities of MOH.

MOH has developed a health research policy and policy guideline that serves as a guide for strengthening this key stewardship tool.

- ▶ Identifying priority areas for research in health.
- ▶ Expanding applied research on major health problems and health service systems.
- ▶ Strengthening the research capabilities of national. Institutions and scientists in collaborations with the responsible agencies.
- ▶ Developing appropriate measures to assure strict observance of ethical principles in research.
- ▶ Utilizing research findings to influence policy making at all levels

Objective

- ▶ To strengthen Basic and Applied/operational research capacity at all levels to promote evidence based disease prevention, health promotion and treatment;
- ▶ To discover new knowledge, new facts, ways and means, their correct interpretations and practical applications;
- ▶ To discover new or improved ways of applying the existing knowledge
- ▶ To give ways of reaching at a practical solutions or decision by all concerned and specially by decision makers;
- ▶ To enhance efficiency and effectiveness of the health system at large as an integral part of the over all socio-economic development

Strategies

- ⇒ Institute mechanisms that ensure that health research comply with set standards and is relevant;
- ⇒ Identify health research priorities;
- ⇒ Strengthen national and zonal operational/applied research capacities;
- ⇒ Create a scientific forum for dialogue and exchange of research findings;
- ⇒ Establish a national resource centre.
- ⇒ Co-ordinate health systems research in order to support evidence-based policy formulation, planning and program implementation.
- ⇒ In line with the National Health Policy, develop policy and policy guidelines, ethical and legal

frameworks governing health research in Eritrea;

- ⇒ Mobilize resources and establish a funding mechanism for operational health research ;
- ⇒ Conduct training on relevant areas of research and research methodologies;
- ⇒ Identify, prioritize and focus on relevant areas of health research with more emphasis on the researchable prevailing health problems of the country like the commonly prevailing communicable and non-communicable diseases and their public health aspects, whose results are used for appropriate actions at the health sector and outside the health sector levels;
- ⇒ Use the existing health facilities, health training institutions, as research centers and the professionals and students there are the actual players of research ;
- ⇒ Establish linkages with national and international research institutions and organizations;
- ⇒ Strengthen the linkage between health research, health policy and programs.

Expected Outputs/Key Indicators

- ▶ Proportion of research institutions doing research and reporting their research.
- ▶ A mechanism for coordination and dissemination of research findings established by 2011
- ▶ A national resource centre is in use by 2012.
- ▶ Mechanisms that ensure health research are relevant and comply with set standards instituted.
- ▶ Health research priorities identified by 2010;
- ▶ National and zonal operational/applied research capacities strengthened;
- ▶ Scientific forum for dialogue and exchange of research findings established.
- ▶ A national resource centre established.
- ▶ Health systems research Co-coordinated.
- ▶ Policy and policy guidelines, ethical and legal frameworks governing health research in Eritrea developed;
- ▶ Resources and funding mechanism for operational health research mobilized and established ;
- ▶ Training on relevant areas of research and research methodologies conducted;
- ▶ The existing health facilities, health training institutions, used as research centers.
- ▶ Linkages established with national and international research institutions and organizations;
- ▶ The linkage between health research, health policy and programs strengthened.

Chapter 7: HEALTH CARE FINANCING AND FUNDING

A. Health Care Financing

Background and problem analysis

At the time of independence of the State of Eritrea, there was no health care financing policy and therefore, the first priority agenda of the MOH in seeking the means to solve the huge expenses infrastructure construction/rehabilitation, manpower training, procurement of medicines and supplies involved the people to participate to contribute dependent on their means as a supplement to government funding.

In 1996 the first nominal cost sharing scheme was introduced taking into account the low socio economic development. It was designed in a sliding scale with the lowest fees paid at the primary care levels and higher at secondary and tertiary level of care. However, emergency services are provided free of charge for the first 24 hours in all health facilities complemented by exemptions made for chronic diseases and primary health care services (i.e. ANC, immunization etc.)

Although the 1996 health care financing policy has introduced highly subsidized health care fees, it can serve as a basis for further revision or reform of the health care financing. The 1998 health care financing policy was made basically on the basis of advantages and disadvantages of the 1996 health care financing and the economic status of the country.

The performance of a health financing system depends among others on its capacity for equitable and efficient revenue generation; the extent to which financial risk is spread between the healthy and the sick, and the rich and the poor; extent to which the poor are subsidised; efficient purchasing of health inputs and services; and the prevailing macroeconomic situation, e.g. economic growth, unemployment, size of the informal sector compared to the formal sector, governance, etc.

In May 2005, the Fifty-eighth World Health Assembly adopted a resolution⁷ that urges Member States to ensure that health financing systems include a method for prepayment of financial contributions for health care. This is aimed at sharing risk among the population and avoiding catastrophic health-care expenditure and impoverishment of care-seeking individuals. The resolution also encourages planned transition to universal coverage and ensured, managed and organized external funds for specific health programmes or activities which contribute to the development of sustainable financing mechanisms for the health system as a whole.

Similar to other countries in the region Eritrea faces health care financing challenges related to efficient and equitable revenue collection which include low investment in health; heavy reliance on out-of-pocket expenditures; low household capacity to pay due to widespread poverty; high unemployment; low economic growth; limited fiscal (budgetary) space; double burden of communicable and non-communicable diseases; high but declining population growth rates and erratic disbursement of donor funds. Challenges also abound which affect the country's potential to meet its health financing objectives due to inadequate revenue pooling and risk management.

Considering the aforementioned therefore, there is a dire need design an acceptable transition mechanism towards a universal coverage which is evidence based and relevant to the country's socio-economic-cultural and political status. The existing exemption mechanisms need to be strengthened using innovative mechanisms which may include enhanced community awareness of the exemption policy, issuance of exemption cards to poor people long before the need for health care arises, strengthening administrative capacity for monitoring, supervising, interpreting and applying exemptions; compensation to health facilities for revenue lost through granting of exemptions, increased funding to health facilities where the poor are concentrated and strengthened political support for exemptions.

The goal of health financing for the HSSDP is to raise sufficient financial resources to fund the plan whilst ensuring equity and efficiency in resource mobilisation, allocation and utilisation during the plan period.

Objective

- ▶ To mobilize additional resources to fund the HSSDP.
- ▶ To ensure effectiveness, efficiency and equity in resource allocation and utilization.
- ▶ To ensure transparency and accountability in resource utilization.
- ▶ To facilitate sustainability of health care delivery system by adopting a diversified complementary health care financing mechanism.
- ▶ Upgrade the user's share in health care cost at secondary and territory levels and replace the nominal fees by users fees at the primary care levels.
- ▶ Introduce full cost recovery for clients who have health care cost coverage
- ▶ Introduce semi private service in public health facilities that can be used by those who can afford and are willing.
- ▶ Introduce some privileges to attract clients to use the semi private service in public hospitals.
- ▶ Establish mechanism for exemptions for the following conditions:-
- ▶ Emergency cases for the first 24 hours
- ▶ Contiguous and communicable diseases
- ▶ People who are poor and certified by the concerned authority

Strategies

- ⇒ Develop evidence based comprehensive health financing policy and a strategic plan based on the principles of NHP.
- ⇒ Strengthen health sector stewardship, oversight, transparency, accountability and mechanisms for preventing wastage of health resources;
- ⇒ Strengthen financial management skills, including competencies in accounting, auditing, actuarial science, health economics, budgeting, planning, monitoring and evaluation;

Expected Outputs/Outcomes/Key Indicators

- ▶ Increase health care cost recovery of the recurrent expenditure by 40%.
- ▶ Improve health care efficiency, quality and equity by 50%
- ▶ Decrease clients by passing the referral system by 60% so that clients will be encouraged to visit the primary care facilities and discourage the use of expensive hospital level care for mild diseases.
- ▶ Increase community participation in their health services by 70% in order to enable the
- ▶ Ministry of Health improves the Quality of health services delivery.
- ▶ Semi private service successfully established in public hospitals service.

Private wings/sections of public hospitals

Recognising that, especially in urban areas, there are sections of society with a greater ability to pay for health services the MoH is in the process of introducing a system of full patient charges or for profit service in private wings/sections of public hospitals. During the HSSDP period (2010-2014) this mechanism shall be strengthened with caution being exercised to ensure that services in the public wing/section are not compromised. In the long term, options of partial or full hospital autonomy may also be considered so as to increase efficiency and expand the scope of hospital services.

B. HSSDP Funding

Background and problem analysis

The financial requirements of the HSSDP will be for the most part covered by the government in the form of annual budgets allocated by the Ministry of Finance and other government bodies. These will include the operational expenses, part of infrastructural costs and the granting of land for construction provided by local Governments. Other sources of funding and material support are expected to come through multilateral and bilateral partners.

The issue of financial sustainability of the health sector requires careful analysis that shall be implemented during the HSSDP implementation period. For instance an increase in user's fee has been suggested as a means for financial sustainability. However, further price increase in the absence of quality improvements may cause decrease in utilization.

The Ministry of Health is finalizing preparations to introduce Semi private service in public hospitals. This shall be strengthened during the implementation period of this HSSDP, and shall develop to promising levels for substantial contribution of funding the next cycle of HSSDP.

Although the neither detailed review of the MOH's Capital budget proposal for the coming five years nor the prediction for partner funding can be made for the planned investment of the HSSDP, the analysis of the financial sustainability of the health sector based on the current state and likely development for the coming five years was done on forecasting basis:

- ▶ Costs: Capital costs which can come from government and donor proposed investments. Recurrent costs based on the existing budgets plus adjustment for the resources needed to improve quality, plus, estimates of the operating costs from new or upgraded facilities.
- ▶ Revenue: Projection of the government capital and recurrent budgetary resources which will be available during the next 5 years. This shall be done through considering the following issues
 - 1) growth of the economy ,
 - 2) the percent of GDP for the capital and recurrent budgets,
 - 3) the percent of government total capital and recurrent budgets for the health sector,
 - 4) the level of donor capital and recurrent budget support,
 - 5) the level of users fees.

As part of the preparation for the next cycle of HSSDP, during the implementation period of this HSSDP, the Ministry of Health shall consider moving towards cost recovery of higher percentage of the costs of care in the context of social insurance system rather than through price increase within the current system.

Objective

- ▶ Ensuring the financing the Health services through multiple sources.
- ▶ Coordination of funding from partners, including funds from international organizations and bilateral agencies and governments, and other national and international partners.

Strategies

- ⇒ Development of uniform, disbursement, procurement activity and reporting with sound financial management system
- ⇒ Establishment of a uniform monitoring and evaluation system based on institutional requirements rather than individual partner project.
- ⇒ Studying various options for health care financing including health insurance, cost recovery and contributions from Semi-private Service in public facilities.
- ⇒ Establishment of a uniform monitoring and evaluation system based on institutional

requirements rather than individual partner project.
Expected Outputs/Outcomes/Key Indicators

- ▶ Financing the Health services ensured through multiple sources.
- ▶ Funding from partners, including funds from international organizations and bilateral agencies and governments, and other national and international partners coordinated.
- ▶ Uniform, disbursement, procurement activity and reporting with sound financial management system established
- ▶ Various options for health care financing including health insurance, cost recovery and contributions from Semi-private Service in public facilities studied.
- ▶ Uniform monitoring and evaluation system based on institutional requirements rather than individual partner project established.

C. HSSDP Budget

As a process of costing the HSSDP, all units, divisions and departments of the Ministry of Health were provided with a format for presenting the information required for costing the HSSDP, in a form of table. The Format contains a column for listing all activities they plan to undertake in the five years period of the HSSDP, columns for the schedule of the activities and the cost all of the activities. It also includes for presenting available fund and gaps in funding as well as the total budget required for each activity.

However, most units, although submitted the list of activities with a quarterly schedule for the first year, they were not able to cost them. Hence, an ideal component by component costing of the HSSDP couldn't be undertaken. Consequently, recurrent budget was prepared using the expenditure of 2008 as the bases, and projecting it to 2010-2014 expenditure, taking into account an estimated annual inflation

During this HSSDP period preparations, such as conducting the National Health Accounts Study, and preparation of medium term and long term action plans for interventions or packages interventions at the headquarter level, as well as integrated action plans at Zonal and Sub-Zonal levels, to enable component by component costing for the next cycle of HSSDP.

A detailed description of the recurrent budget is presented in annex 2. As presented in annex 2, the estimated total planned recurrent budget investment for the period 2010 to 2014 is approximately ERN 5.3 billion and USD 269.7 million,-equivalent to a total of ERN 10 billion.

Capital budget for the planned constructions to be undertaken or initiated during this HSSDP, such as construction of a Zonal Referral Hospital in Keren, construction of a referral hospital in Massawa, expansion of Azel Pharmaceutical Share Company etc.. are not included in this budget. The costing of such investments shall be made separately on project by project bases and submitted to the Government's approval separately, as part of the projects.

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Annex 1: Health related laws, health policies and guidelines.

Health-related laws

1. Proclamation No.36/1996, a proclamation to control Drugs, Medical Supplies Cosmetics and Sanitary Items. The Ministry has identified the need for the revision of this proclamation and is in the process of undergoing the same.
2. Proclamation No.75/1995, a proclamation to regulate Private Health Sector
3. Proclamation No 143/2004, A Proclamation to Provide for Tobacco Control
4. A proclamation to ban female Genital mutilation
5. A Proclamation promoting salt iodization aimed at the prevention of iodine deficiency-related diseases is finalized, pending ratification

Policies, guidelines

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