Republic of Zambia

Ministry of Health

NATIONAL HEALTH STRATEGIC PLAN 2006-2011

"… Towards Attainment of the Millennium Development Goals and National Health Priorities…"

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FOREWORD

ABBREVIATIONS AND ACRONYMS

Abbreviation/ Acronym		Definition
AIDS	-	Acquired Immune Deficiency Syndrome
ACTS	-	Artemesin Based Combination Therapies
ANC	-	Antenatal Care
ARH	-	Adolescent Reproductive Health
ART	-	Anti Retroviral Therapy
ARVs	-	Anti-Retrovirals
BCC	-	Behaviour Change Communications
BHCP	-	Basic Health Care Package
BSc	-	Bachelor of Science
CBoH	-	Central Board of Health
CDC	-	Centre for Disease Control
CHAZ	-	Churches Health Association of Zambia
CIDA	-	Canadian International Development Agency
CPs	-	Cooperating Partners
CSO	-	Central Statistical Office
CPD	-	Continued Professional Development
CTC	-	Counseling, Testing and Care
DANIDA	-	Danish International Development Agency
DALYS	-	Disability Adjusted Life Years
DCI	-	Development Cooperation Ireland Aid
DGIs	-	
DHBs	-	District Health Boards
DHMT	-	District Health Management Team
DHS	-	Demographic and Health Survey
DILSAT	-	District Integrated Logistic Self- Assessment Tool
DOTS	-	Directly Observed Treatment Short Course (TB)
DPT	-	Diphtheria Pertusis Tetanus
DRF	-	Drug Supplies Fund
DSBL	-	Drug Supply Budget Line
EDL	-	Essential Drugs List
EHTs	-	Environmental Health Technicians
EMOC	-	Emergency Obstetric Care
ESS	-	Epidemiological Sentinel Surveillance
EPI	-	Expanded Programme of Immunization
EU	-	European Union
FAMS	-	Financial Administrative Management System
FDL	-	Food and Drugs Laboratory
FP	-	Family Planning
GDP	-	Gross Domestic Product
GFATM	-	Global Fund to Fight AIDS, TB, & Malaria
GHE	-	Government Health Expenditure
GIS	-	Geographical Information Systems
GRZ	-	Government of the Republic of Zambia
HIPC	-	Highly Indebted Poor Countries

HIV	-	Human Immunodeficiency Virus
HE	-	Health Expenditure
HMIS	-	Health Management Information System
HQ	-	Headquarters
HRH	-	Human Resources for Health
HSSP	-	Health Services and Systems Program
ICT	-	Information Communication Technology
IEC	-	Information, Education and Communication
IGAs	-	Income Generating Activities
IMCI	-	Integrated Management of Childhood Illnesses
IMF	-	International Monetary Fund
IMR	-	Infant Mortality Rate
IRS	-	Indoor Residual Spraying
ITNs	-	Insecticide Treated Nets
IP	-	Infection Prevention
IPT	-	Intermittent Preventive Therapy
JICA	-	Japan International Cooperation Agency
M & E	-	Monitoring & Evaluation
MDGs	-	Millennium Development Goals
NDP	-	National Development Plan
MMR	-	Maternal Mortality Ratio
MoFNP	-	Ministry of Finance and National Planning
MOH	-	Ministry of Health
MoU	-	Memorandum of Understanding
MSH	-	Management Science for Health
MSL	-	Medical Stores Limited
MTEF	-	Medium Term Expenditure Framework
NDQCL	-	National Drug Quality Control Laboratory
NFNC	-	National Food and Nutrition Commission
NGOs	-	Non – Governmental Organisations
NHSP	-	National Health Strategic Plan
NMCC	-	National Malaria Control Centre
NORAD	-	Norwegian Agency for Development
ORS	-	Oral Rehydration Solution
ORET	-	Ontwikkelings Relevant Export Transakie (Development of Relevant Export Transaction)
PAC	-	Post Abortion Care
PEMFAR	-	Public Expenditure Management Financial Accounting Reform
PEPFAR	-	President's Emergency Plan for AIDS Relief
PLWA	-	People Living with AIDS
PMTC	-	Prevention of Mother to Child Transmission
PSM	-	Procurement Supplies Management
PSU	-	Procurement Supplies Unit
PRA	-	Pharmaceutical Regulatory Authority
PRSP	-	Poverty Reduction Strategic Paper
QA	-	Quality Assurance
RBM	-	Roll Back Malaria
R&D	-	Research and Development
RDU	-	Rational Drug Use

RH	-	Reproductive Health
SADC	-	Southern African Development Community
SP	-	Sulphadoxine Pyrimenthamine
SIDA	-	Swedish International Development Agency
STI	-	Sexually Transmitted Infection
STGS	-	Standard Treatment Guidelines
SWAP	-	Sector Wide Approach
SWOT	-	Strengths, Weakness, Opportunities and Threats
TB	-	Tuberculosis
TA	-	Technical Assistance
TGE	-	Total Government Expenditure
THE	-	Total Health Expenditure
ToT	-	Trainer of Trainers
TI	-	Training Institution
TTIs	-	Transfusion Transmitted Infections
TWGs	-	Technical Working Groups
UNICEF	-	United Nations Children's Fund
UNZA	-	University of Zambia
USAID	-	United States Agency for International Development
VCT	-	Voluntary Counseling and Testing
WHO	-	World Health Organisation
YFHS	-	Youth Friendly Health Services
ZANARA	-	Zambia Response to HIV / AIDS
ZCCM	-	Zambia Consolidated Copper Mines
ZDHS	-	Zambia Demographic and health Survey
ZNBT	-	Zambia National Blood Transfusion Services
ZNF	-	Zambia National Formulary
ZNFC	-	Zambia National Formulary Committee
ZNTB	-	Zambia National Tender Board
ZPCT	-	Zambia Prevention Treatment Care
ZMK	-	Zambian Kwacha
<5 children	-	Children under the age of five years.

1 EXECUTIVE SUMMARY

2 INTRODUCTION

2.1 Context

Since 1992, the Government of the Republic of Zambia (GRZ) has been implementing Health Sector Reforms aimed at improving health service delivery. The reforms were articulated in the National Health Policies and Strategies of 1992 (NHPS/92), developed by the Ministry of Health (MOH). The vision of these reforms is to *"…provide the people of Zambia with equity of access to cost-effective, quality healthcare as close to the family as possible…"*.

The underlying principle of these reforms is decentralisation of health service delivery through the delegation of key management responsibilities from the centre to the district and hospital levels. Decentralisation also aimed at shifting resources from the centre to operational levels, where healthcare delivery services are conducted. The reforms also emphasized the importance of community participation in the management of health services and the need for a well motivated and remunerated work force.

Implementation of the reforms has been through a series of National Health Strategic Plans (NHSPs), of which this is the fourth, covering the period from 2006 to 2011. The theme of this strategic plan is *"…Towards Attainment of the Millennium Development Goals (MDGs) and National Health Priorities…"*. The plan has been developed at a time of considerable policy and legal reforms, including the launching of the National Decentralisation Policy of 2003 and the repeal of the National Health Services Act of 1995, leading to the de-solution of the Central Board of Health (CBoH). These developments have significant implications on both the formulation and implementation of this plan.

The NHSP has been prepared at the time when the country and, in particular, the health sector, is facing significant challenges and changes, including: launching of the National Decentralisation Policy; repeal of the National Health Services Act of 1995, leading to the de-solution of the Central Board of Health (CBoH), together with the hospital and district health boards; critical shortage of health personnel; on-going restructuring of the sector; high disease burden, compounded by high prevalence levels of HIV/AIDS; deterioration in health infrastructure; weak economy and inadequate funding to the health sector. This situation calls for "prioritisation" of intervention strategies, paying particular attention to areas that would make significant impact on health delivery and improve the health status of Zambians. This plan therefore places significant emphasis on prioritisation.

2.2 Process and Structure

The strategic plan has been developed through a participative and consultative process involving all major stakeholders. The approach used included data collection, review of literature, thematic group works, stakeholders' consensus building workshops, panel reviews and consolidation of the plan.

3 BACKGROUND

3.1 Sector Organisation and Management

3.1.1 Organisation of the Health Sector

The main feature of the organisational and institutional restructuring implemented under the health sector reform programme was the decentralisation of health service delivery, through devolution of key management responsibilities and resources to district level. In this respect, two parallel, but complimentary organizational structures were introduced, namely, popular structures for public involvement and participation in the decision-making process, and the technical and management structures, designed to ensure that health services are implemented and managed in a manner that is technically sound and conform with best practices. The popular structures created in this process included: the Central Board of Health (CBoH) board, at national level; Hospital Management Boards (HMBs), at hospital level; District Health Boards (DHBs), at district level; and the Neighbourhood Health Committees and Health Centre Committees, at community level. On the other hand, the technical structures established included: the management teams at MOH and CBoH, at national level; Hospital Management Teams (HMTs), at hospital level; and District Health Management Teams (DHMTs), at district level. Further, the Provincial Medical Offices were reconstituted into Provincial Health Offices.

However, the Government has since made a decision to abolish CBoH, together with the hospital and district health management boards. Following this decision, the health sector is undergoing a comprehensive restructuring process through which the functions of MOH and CBoH will be merged and the management and control of all public health facilities and services will directly fall under MOH, through the Provincial Health Offices. In order to ensure continued popular public participation in the management of health services, the hospital and district management boards will be replaced by advisory councils. The challenge for MOH will be to manage the transformation process in a planned and coordinated manner, with minimal disruptions to the existing systems and operations.

3.1.2 Healthcare Providers

The main providers of health care services in Zambia include: public health facilities under MOH; facilities under the Ministry of Defence, including clinics and one hospital in Lusaka; clinics under the Ministry of Home Affairs; Mine hospitals and clinics; Mission hospitals and clinics, which are coordinated by the Churches Health Association of Zambia (CHAZ); Private hospitals and clinics; Non-Governmental Organizations (NGOs); and traditional healers. For historical reasons, each of these categories of healthcare providers has concentrated in different parts of urban and rural Zambia. The total number of health facilities including Government, mission and private facilities are as summarized in Table 1, below.

Table 1: Summary of Existing Health Facilities in Zambia

Type/Level	GRZ	Mission	Private	Total
Hospitals	53	27	17	**97**
Health Centres	1,052	61	97	**1,210**
Health Posts	19	0	1	**20**
Total	**1,124**	**88**	**115**	**1,327**

Source: CBoH, Health Institutions in Zambia: A Listing of Health Facilities According to Levels and Locations,2002

- **Health Posts:** Intended to cater for populations of 500 households (3,500 people) in rural areas and 1,000 households (7,000 people) in the urban areas, or to be established within 5Km radius for sparsely populated areas. The target is to have 3,000 health posts but currently only 20 have been commissioned;
- **Health Centres:** These facilities include Urban Health Centres, which are intended to serve a catchment population of 30,000 to 50,000 people, and Rural Health Centres, servicing a catchment area of 29 Km radius or population of 10,000. The target is 1,385 but currently there are a total of 1,210 health centres (973 Rural, 237 Urban);
- **1st Level Referral Hospitals:** These are found in most of the 72 districts and are intended to serve a population of between 80,000 and 200,000 with medical, surgical, obstetric and diagnostic services, including all clinical services to support health centre referrals. Currently, there are 74 1st Level Referral Hospitals;
- **General Hospitals:** These are 2nd level hospitals at provincial level and are intended to cater for a catchment area of 200,000 to 800,000 people, with services in internal medicine, general surgery, paediatrics, obstetrics and gynaecology, dental, psychiatry and intensive care services. These hospitals are also intended to act as referral centres for the 1st level institutions, including the provision of technical back-up and training functions. Currently there are 19 2nd Level hospitals. Two provinces, namely Southern and Copperbelt, have 5 and 3 2nd Level Hospitals respectively. There is need to rationalize the distribution of these facilities through right-sizing; and
- **Central Hospitals:** These are for catchment populations of 800,000 and above, and have sub-specializations in internal medicine, surgery, paediatrics, obstetrics, gynaecology, intensive care, psychiatry, training and research. These hospitals also act as referral centres for 2nd level hospitals. Currently there are 5 such facilities in the country, of which 3 are in the Copperbelt Province. Again there is need to rationalize the distribution of these facilities.

Health Sector Reforms introduced in 1992 tended to overlook levels 2 and 3 hospitals. Policy makers and Cooperating Partners (CPs) exclusively focused on primary health care despite the knowledge that healthcare was a continuum of care ranging from primary health to tertiary care. In 1999, there was an attempt to bring the hospitals on board the health reform agenda. A Hospital Sector Reform Steering Committee was established to spearhead hospital sector reforms. The focus of the reforms was on formulation of a hospital policy, systems development in the hospitals such as HMIS and FAMS, development of the Basic Package of Care, quality assurance, leadership and management, and overall improvement of the quality of patient care.

In 2003, as part of expanding the district basket funding, a hospital basket was established with plans to later include training institutions. During the same year, a Capacity Assessment Mission (CAMS) was conducted on hospitals, in which management systems and capacities were assessed. Following the CAMS assessments, the intention was to then provide support to hospitals in strengthening and developing appropriate systems and capacities to qualify for basket funding. However, the CAMS report for hospitals was never finalised, capacity support was not given, and basket funding to hospitals has not been increased above the initial amount agreed upon. MOH has since realised capacity limitations to take this forward and has identified the need to develop technical advisory support to hospitals and training institutions that would improve their efficiencies and effectiveness and help unlock additional basket funding.

3.1.3 Statutory Boards

Statutory boards, both regulatory and service, play an important role in the implementation of the overall Government health policy. In order to provide for efficient and effective coordination of the operations of regulatory boards under the MOH, in 1997 the Government issued a Statutory Instrument, which established the National Public Health Regulatory Authority (NPHRA).

NPHRA was mandated to coordinate the activities of regulatory boards, which include the Pharmaceutical Regulatory Authority, Food Safety and Food Quality Control Services Unit, Environmental Health and Epidemiological Trends Unit, Radiation Protection Board, Radiology and Medical Devices Control Unit and Medical Laboratory Regulatory services Unit, Medical Council of Zambia and the General Nursing Council. However, these boards have continued to operate in isolation. The Ministry should ensure that coordination is strengthened, through operationalisation of the provisions of the Statutory Instrument.

Similarly, service boards such as, National Food and Nutrition Commission (which is partially regulatory), Zambia National Flying Doctor Services (ZNFDS), Zambia National Blood Transfusion Service (ZNBTS) and the Tropical Disease Research Centre (TDRC) also require more integration into the service delivery activities of the Ministry.

3.1.4 Partnerships

Establishing effective partnership is one of the key principles of the Zambian health reforms. The vision is to create strong, sustainable partnerships among all key stakeholders involved in health service delivery in Zambia. Accordingly, partnerships have been established in each district at all levels of service delivery. These partnerships allow key stakeholders to work together to analyse health problems in their respective areas, identify possible solutions, develop joint work plans, implement and evaluate progress of their programmes.

Except for the Churches Health Association of Zambia (CHAZ), private sector participation in health service delivery in Zambia has been modest. However, over the past few years, there has been a noticeable steady increase in private sector, resulting into various forms of private/public sector partnerships, which include the sharing of medical technologies, referral of patients, human resources and facilities. The gradual increase in the number of "for profit" and "not for profit" private health service providers presents significant policy implications with regard to their involvement in the delivery of public health services. There is need for the Ministry to provide appropriate standards and guidelines to the private sector on acceptable levels of practice. Lack of such guidelines has resulted into poor case management, irrational drug use, poor prescription methods and unnecessary delays in referring patients to specialized hospitals.

Accreditation is another way of increasing private sector participation in health service delivery. However, the existing policy and regulatory environment is weak. In addition, currently there are no incentives from MOH, aimed at attracting the private sector to participate in the implementation of the Basic Health Care Package (BHCP) through the public health care delivery system.

Many reasons have been given for this state of affairs, including: a) lack of knowledge about the private sector by policy makers in the Ministry; b) limited dialogue between the public and private stakeholders; c) lack of institutionalized policy instruments from MOH for interacting with the private sector especially in financing, regulation and dissemination of information. The establishment of global health funding initiatives and opportunities for specific diseases such as HIV/AIDS, TB and malaria has created further opportunities for enhanced private sector participation in health service delivery.

Generally, the Ministry needs to harness the Public/Private sector partnerships in the delivery of public health services, through increased dialogue, development and enforcement of appropriate regulatory framework, improved coordination, monitoring and evaluation.

3.1.5 Gender and Health

Zambia still shows some major gender disparities in health outcomes, particularly in terms of morbidity, mortality, under five mortality and nutrition as reflected in the ZDHS 2001-02 report. Overall, the issue of gender differences in access to healthcare and the impact on health outcomes does not seem to have received the attention it deserves. Currently, the participation of men in reproductive and family health is still relatively low, gender policies in the NHSP are not transformed into concrete action plans, there is no collection of gender-disaggregated data within the HMIS, there are fewer women in management positions at all levels of the public health system, and the understanding of gender mainstreaming is still limited.

Some of the reasons why little progress has been made to mainstream gender in the health sector are: the lack of conceptual understanding of gender; limited technical expertise; lack of appreciation of linkages between Gender and health; and lack of commitment at leadership and other levels. The District Development Coordinating Committees (DDCC) which have been mandated to implement gender and health related issues at the district level are not functional as they also lack capacity in terms of technical expertise, material and financial resources and are not even aware of the National Gender Policy and its Implementation Plan.

The challenge for the health sector is to: develop a specific action plan for accelerated gender mainstreaming; address gender balancing in recruitment and human resource development activities; adopt a multi-sectoral approach to strategically mainstream gender; and establish clear monitoring and evaluation indicators, which can show progress on gender mainstreaming.

3.2 Health Sector Performance and Disease Burden

The Zambian population is currently estimated at 11.3 million, with an annual average growth rate of 3% and life expectancy at birth of 50 years (CSO, 2004). Over the past five years, the overall performance of the health sector has shown some improvements. This is reflected in the trends of the key basic health care delivery indicators, such as health centre outpatient per capita attendance, first antenatal coverage and fully immunized children under the age of 5 years. Tables 1 presents the trends for selected healthcare delivery and impact indicators.

Table 1: Selected Healthcare Delivery Indicators, 2000 - 2004

Indicator	2000	2001	2002	2003	2004
Health Centre Outpatient Per Capita Attendance	0.42	0.77	0.73	0.86	0.76
First Antenatal Coverage (%)	81	88	89	95	97
Average Antenatal Visits (Times)	3.6	3.6	3.4	3.3	3.1
Supervised Deliveries (%)	39	44	49	55	61
Fully Immunised Children Under 1 Year (%)	76	86	76	74	80
Underweight Prevalence (% Weight)	23	23	22	21	17
New Family Planning Acceptors Rate per 1000	85	101	111	123	127
Health Centre Staff Load (Patients/Staff)	17	14	16	17	17
Drug Kits Opened Per 1,000 Patients	0.73	0.75	0.69	0.73	0.93

Source: Central Board of Health

However, despite these improvements, the disease burden has continued to increase and health care delivery continued to be constrained by lack of sufficient human, material and financial resources. The high disease burden, is compounded by the high prevalence of HIV/AIDS, high poverty levels and poor macroeconomic situation. Presented in Table 2 are summarized statistics on the trends for some of the major diseases in Zambia, for the period from 2000 to 2004.

Table 2: Summary: Some of the Major Diseases in Zambia, 2000-2004

S/N	Disease Name	Indicator	2000	2002	2004
1	Malaria	Incidence/1,000	316	388	383
		Cases	3,591,621	4,101,169	4,328,485
		Deaths	8,952	9,021	8,289
2	Respiratory Infection: Non-pneumonia	Incidence/1,000	119	148	153
		Cases	1,340,283	1,565,430	1,726,597
		Deaths	1,269	1,057	1,436
3	Diarrhoea: Non-blood	Incidence/1,000	65	80	75
		Cases	739,055	846,336	843,423
		Deaths	2,795	2,996	2,725
4	Respiratory Infection: Pneumonia	Incidence/1,000	35	45	44
		Cases	402,643	475,389	494,040
		Deaths	4,254	4,484	4,186
5	Eye Infections	Incidence/1,000	47	43	40
		Cases	471,743	451,346	448,280
		Deaths	72	8	5
6	Trauma: Accidents, injuries, wounds, burns	Incidence/1,000	34	42	46
		Cases	390,869	447,278	525,039
		Deaths	646	787	833
7	Skin Infections	Incidence/1,000	28	37	42
		Cases	309,758	393,384	472,746
		Deaths	135	126	125
8	Ear/Nose/Throat Infections	Incidence/1,000	21	25	23
		Cases	238,403	260,058	259,877
		Deaths	49	31	34

9	Intestinal Worms	Incidence/1,000 Cases Deaths	20 217,142 49	22 227,856 14	17 197,639 6
10	Anaemia	Incidence/1,000 Cases Deaths	13 155,149 2,761	16 166,241 2,612	15 170,846 2,381

Source: Ministry of Health, HMIS, 2005

A number of factors have adversely affected the performance of the health sector in Zambia. These include a critical shortage of essential health workers, inadequate funding, poor state of health facilities and equipment, inadequate development of social support systems for fostering health development programmes, insufficient empowerment of communities to improve their health, poor geographical access, especially in rural areas, and inadequate systematic research in alternative and traditional medicines. As a result, health services were not fully appreciated by the public.

3.3 Performance Against the MDGs

The sector's performance against the four relevant MDGs is summarized in Table 3.

Table 3: Selected Impact Indicators

Indicator	Target	1990/2	1996	2002
Infant Mortality Rate per 1,000	36	107	109	95
Under 5 Mortality Rate per 1,000	63	191	197	168
Maternal Mortality Ratio per 100,000	162	*	649	729
HIV Prevalence Rate (ESS)		20	18.6	19.0
HIV Prevalence Rate (ZDHS 2001-2)		-	-	15.6
TB Cure Rate	85%			
Detection Rate	70%			
Malaria Incidence Rate	<121	255		388
Essential Drugs				

Source: Zambia Demographic Health Survey 2001/02

As could be observed from Table 3 above, the performance trends against most key MDG targets has been below expectations. Despite discrete and sustained improvements in most indicators Zambia is unlikely to meet most of its MDGs by the target year of 2015. While the causes for the low performance against of the MDGs could be many, the critical shortage of human resources at all levels of the system is no doubt the most important factor, together with the lack or weak inter-sectoral responses to address important cross-cutting health problems such as the deteriorating nutritional status of many Zambians.

It is for this reason that in order to reverse the trends and vigorously aim at significantly improving the health sector's general performance, in particular against the MDGs, the new NHSP will provide considerable focus on dealing with the human resources crisis, improving the state of infrastructure and fostering multi-sectoral responses in key areas such as nutrition, HIV/AIDS, control of epidemics, health education and increased access to basic environmental health facilities, such as safe water, acceptable basic sanitation, electricity or telecommunications, to name just a few.

3.4 The External Environment

The main external factors that could impact on the performance of the health sector during the duration of this strategic plan include political and legal, economic, social and cultural, and technological factors, as summarized below.

3.4.1 Political and Legal Factors

The political climate in Zambia is generally peaceful, stable and conducive for smooth delivery of healthcare services throughout the country. However, the following have been identified as the major political and legal developments that could impact on the implementation of this plan.

3.4.1.1 Public Service Reform Programme

In 1993, the Government launched the Public Service Reform Programme (PSRP). The programme aims at increasing efficiency and effectiveness of the public service, through rightsizing, decentralization, development of appropriate performance management systems and capacity building. Under PSRP, the role of the central ministries (head quarters) is considered to be more on policy formulation, resource mobilization and monitoring of sector performance.

Pursuant to this programme, MOH was restructured in 2002. However, this was only partially done and concentrated on MOH-HQ, leaving out other units of the public health delivery system. As a result of the partial restructuring, a new organization structure for MOH-HQ was introduced, but was not accompanied with new performance management systems. In view of the foregoing, the Government has identified the need to carryout a comprehensive restructuring of MOH, covering the whole sector.

3.4.1.2 National Decentralisation Policy

In 2003, the Government launched the National Decentralisation Policy, which will be implemented over a period of 10 years, starting from 20003. This development has brought in another dimension to the future organization and management of health services in Zambia, with major implications on planning, resource allocation, human resource management and accountability, as the overall decentralization policy calls for channeling and control of resources through the Local Authorities at district level.

While the National Decentralisation Policy aims at devolving responsibilities to the district level, the provincial level management will provide the necessary intermediate level of programme management, coordination and supervision of district authorities. Under the existing decentralised health sector, the Provincial Health Director's Offices play an important role of providing technical support, coordination and supervision to the District Health Boards and Management Teams. The on-going restructuring of the health sector should therefore clearly define the new roles and responsibilities of the provincial level and strengthen management and staffing at this level. The challenge is for MOH to carefully study the implications of the new decentralisation policy and ensure that the achievements already made in this area are harmonized with the requirements of the new policy, while taking full advantage of the opportunities presented by it. Further, MOH should ensure effective collaboration and coordination with the provincial and Local Authorities at district level in respect of healthcare prioritization, planning, coordination and control.

3.4.1.3 National Health Services Act of 1995

The National Health policies and Strategies of 1992 and the National Health Services Act of 1995 (NHSA/1995) proposed the introduction of a new institutional framework for the health sector in order to address shortcomings in the then existing organizational structure. The new structures created included the Central Board of Health (CBoH) and health management boards. Over the years, there have been noticeable achievements, particularly in health systems strengthening. The Ministry has however faced significant challenges, which include duplication of functions between MOH-HQ and CBoH, failure to implement de-linkage the staff from Public Service to the Health Boards, and an overall bloated and costly central level structure. In view of the foregoing, in August 2004 the Government made a policy decision to restructure the health sector by repealing the NHSA/1995 to facilitate the merger of the MOH-HQ and CBoH functions at the centre and dissolution of the hospital and district management boards, and the introduction of a new organisational structure for the health sector in order to bring the much needed improvements to service delivery.

The proposed restructuring of the health sector presents significant challenges, which if not properly managed, could lead to a reversal in the achievements made under the health reforms. The following have been identified as major risks associated with this process:

- Possibility of disrupting the technical support services rendered by the CBoH to service units, which could adversely affect the quality of health service delivery;
- Possibility of staff losses due to de-motivation arising from the shift to poor Civil Service Conditions of Service and uncertainties that may result from the change process. Staff attrition could lead to loss of institutional memory; and
- Possibility of a reduction in donor funding due to concerns that transparency and accountability for donor funds may slacken, with the loss of systems and capacity developed under the CBoH, such as the Health Management Information System (HMIS), Financial and Administrative Management Systems (FAMS), Planning Systems and the Sector-wide Approach (SWAp).

In order to prevent these risks the new NHSP will place considerable emphasis on improving health systems governance, capacity building and addressing the human resources crisis.

3.4.2 Economic Factors

3.4.2.1 Macroeconomic Overview

Since 1992, the Government has continued to pursue stringent fiscal policy measures aimed at stabilizing the macroeconomic environment and achieving sustainable economic growth. During the period from 2000 to 2004, the Zambian economy registered positive real growth at an average rate of 4.6% per year, which is higher than the average rate of 4.4% projected for the period from 2001 to 2005 (MoFNP: TNDP/2002-05). Despite the improvement in GDP growth rate, it is still inadequate to have significant changes on the standard of living and health status of Zambians. It is estimated that the economy must consistently grow at 7-8% per annum for at least 10 years, in order to achieve the desired people-level impact. Table 5 presents selected key macroeconomic indicators for the period from 2000 to 2004.

Table 5: Selected Key Macroeconomic Indicators, 2000-2004

Indicator	Unit	2000	20001	2002	2003	2004
Real GDP Growth	%	3.6	4.9	3.3	5.1	5.0
GDP	US$ 'Mil.	3,239	3,640	3,776	4,318	5,409
Inflation Rate (Year-end)	%	30.1	18.7	26.7	17.2	17.5
Domestic Fiscal Deficit	% GDP	-	-	3.3	5.1	1.9
Exchange Rate	K/US$	3,111	3,608	4,307	4,743	4,772
% GHE to GDP	%	-	7	6	6	6

Source: Ministry of Finance and National Planning: Macroeconomic Indicators and Economic Reports

Due to the past poor macroeconomic performance, health services are still under-funded to effectively support interventions that would result in significant disease reductions. The WHO Commission on Macro-economics has estimated that a country such as Zambia needs a per capita expenditure on health of US $33 in order to deliver the Basic Health Care Package. In 2000, the total per capita expenditure on health, from GRZ and Cooperating Partners (CPs), was estimated at $10.8 and was projected to increase to $12.0 by 2005. The actual per capita expenditure during the period 2001 to 2004 has however only averaged $10.5. Further, the proportion of Government funding to the health sector has been declining, from 14% of the total budget during the mid to late 1990s to an average of approximately 10% between 2001 and 2004.

In US dollar terms, total Government health expenditure increased from US$63 million in 2001 to US$65 million in 2002, but then slightly declined to around US$63 million in 2003, and later rose to US$73 million in 2004. As a percentage of the total national budget, funding to the health sector declined from 8.7% in 2003 to 8.1% in 2004. Similarly, as a percentage of the discretionary budget, funding to the health sector dropped from 12% in 2003 to 11.5% in 2004. Public health expenditure, as a percentage of GDP, has also shown signs of a downward movement, declining from 2.5% around 1995 to 1.5% in 2000, and was estimated at 2.7% in 2003 and 1.7% in 2004. The Government has made a commitment to progressively increase annual funding for the health sector from the current 11.5% of the budget to 15%.

Although the longstanding support of bilateral and multilateral CPs plays the most important role in the health sector, large new levels of funding from the American President's Emergency Plan for AIDS Relief (PEPFAR) and HIPC opportunities will add to the resources. The Global Fund has been providing increased support into efforts targeted at HIV/AIDS, Malaria and TB. Further, the attainment of the HIPC Completion Point early 2005 has potential to unlock significant financial resources, through debt cancellations and increased grants from the international community, especially the G8 countries, International Monetary Fund (IMF) and the World Bank. As at the end of 2004, the total foreign debt stock was US$ 7.1 billion. It is projected that by mid 2006, the total external debt stock would be reduced to US$ 0.5 billion. The savings that would be made from debt cancellations would be targeted to the social sectors, especially the health sector. Given this scenario it is expected that the 15% of budget target for the health sector could be achieved.

In 2004, a total of US$ 789.1 million was expected as external aid, out of which US$ 475.6 million was to come as project support and US$ 313.5 million as programme support (MoFNP, Economic Report 2004). However, preliminary data indicated that only US$ 297.9 million or 38% of total funds expected was received.

Out of the total received, US$ 64.8 million was programme support and US$ 233.2 million was project financing. The data available at the Ministry of Finance and National Planning indicate that the bulk of project financing received in 2004 was earmarked to the social sectors of the economy, especially health and education. The health sector received the largest portion at 42.9% of total project funds and education received 40.6%.

3.4.3 Social/Cultural Factors

3.4.3.1 Demography

In 2000, the Zambian population was estimated at 9.9 million (CSO 2000), with an average growth rate of 2.5%. The population for 2005 is estimated at 11.3 million. Out of the total population, approximately 50% are males and 50% females. Zambia is one of the countries with the highest dependency ratios in the world, with 47% of the total population being children under the age of 15 years. It is one of the most urbanized countries in Sub-Saharan Africa, with approximately 38% of the population living in urban areas. Unemployment is high and presents a serious social problem. According to the Living Conditions Monitoring Survey (LCMS III) for 2002/2003 (CSO-LCMS III 2003), out of the estimated labour force of 4,055,169, 13.3% were unemployed, 14.7% were employed in the formal sector and the balance in the informal sector. A combination of a high dependency ratio and high unemployment presents a significant challenge for healthcare delivery.

3.4.3.2 Poverty Reduction

Poverty levels in Zambia have remained high. In 2002, the overall poverty incidence was estimated at 67%. The link between ill health and poverty has been well established. Poverty leads to ill health and ill health is more likely to lead to further impoverishment among the poor than among the wealthy. As a result of poverty, preventable and treatable diseases have taken an enormous toll on the poorest people in Zambia who do not have access to professional healthcare, health information, safe drinking water and sanitation, education, decent housing and secure employment. Further, evidence from research in Zambia has shown that although the poorest people suffer disproportionately from preventable diseases, they tend to make less use of health services. Table 6 presents statistics on the poverty situation in Zambia.

Table 6: Poverty Situation in Zambia, 1996-2002

Indicator	Indicator	1996	1998	2002*
National Incidence	%	78.0	73.0	67.0
Incidence of Extreme Poverty	%	66.0	58.0	46.0
Rural Poverty (% of Rural Population)	%	89.0	83.0	72.0
Urban Poor (% of Urban Population)	%	60.0	56.0	28.0
Income Distribution (Gini Coefficients)	-	0.61	0.66	0.57

Source: Ministry of Finance and National Planning – Economic Report 2004
*** The methodology used in 2002 was different from the other years**

Although some important determinants of inequalities in health may reside in the broader social economic environment, the health sector has an important role to play in improving the health of the poor. Improving the health of the poor will be a major challenge for the MOH. In this respect, the new NHSP will improve the targeting of resources to disadvantaged districts and populations with higher disease burden, poverty and health needs.

3.4.3.3 Literacy Levels

The average national literacy rate in 2001-02 was estimated at 65.1% (ZDHS 2001-02). In all the age groups, literacy levels for men were higher than for women. The total literacy level for men was 81.6%, against 60.6% for women. Literacy levels were also higher in urban areas (79% for women and 91% for men) than in rural areas (48% for women and 76% for men). Literacy levels for the 15-24 years age group stood at 59% for females and 71% for males. Poor literacy levels, especially among the females and rural dwellers, has adverse implications on health service delivery as it presents difficulties in communicating health related messages and programmes.

3.4.4 Technological Factors

Significant advances in the world of science and technology present major challenges and opportunities for the health sector in Zambia. Currently, there are a number of methodologies and technologies on the market, which could be used in resolving major healthcare problems in a more efficient, effective and economical manner. These include:

- Advances in malaria control, representing three important developments: new diagnostic tools, more effective chemotherapy and better mosquito control methods. The new "dipstick" malaria test reacts to the parasite's antigens and enzymes and is considered more accurate and effective. Artemisinin based Combination Therapies (ACTs) have now become the treatment of choice and more effective in dealing with resistant strains of malaria. In prevention, the use of insecticide treated nets (ITNs) is proving effective and new long-lasting ITNs would soon be available;
- Anti-Retroviral Therapy (ART) presents major opportunities for the management of HIV/AIDS cases. ART has the ability to extend the lives of HIV-infected individuals;
- Lower costs of computers, improved connectivity, the internet and more user-friendly software packages could improve the abilities of healthcare providers to communicate and share data and contribute to improvements in efficiencies and cost-effectiveness;
- New and improved imaging technologies that have become available. Whilst many new technologies are still beyond affordability in Zambia, digital technologies are likely to offer opportunities for quality improvements in medical imaging. Currently, the Government is constructing a radio therapy centre in Lusaka and there are possibilities of viable public/private partnerships in this area;
- Application of Telemedicine technology, which is currently being considered for implementation by the Ministry; and
- Knowledge of the human biological heritage has now reached a stage where tailor-made diagnostics and, in particular, new treatment methods can be developed. This could, in the foreseeable future, have a positive impact on Zambian health services delivery. On the other hand these technologies will also present significant ethical dilemma, which would require careful consideration.

Whilst it is acknowledged that there are significant advances in the fields of science and technology for health, the need to carefully assess and only access most appropriate, ethical, affordable and sustainable new sciences and technologies is of critical importance. The Ministry will need to develop appropriate policies and approaches for accessing the new developments in science and technology in a planned, coordinated and cost-effective manner. Of critical importance will be the global partnerships and functional links with the private sector.

4 VISION, MISSION, OVERALL GOAL, OBJECTIVES AND ASSUMPTIONS

4.1 Vision

Equity of access to assured quality, cost-effective and affordable health services as close to the family as possible.

4.2 Mission Statement

To provide cost effective quality health services as close to the family as possible in order to ensure equity of access in health service delivery and contribute to the human and socio-economic development of the nation.

4.3 Overall Goal

To further improve health service delivery in order to significantly contribute to the attainment of the health Millennium Development Goals and national health priorities.

4.4 Key Principles

The following principles shall continue to guide the implementation of this Strategic Plan:

1. Equity of access: Equal access to healthcare services for all the people of Zambia, regardless of their location, gender, age, race, social, economic, cultural and political status.
2. Affordability: Affordable healthcare services to all, taking into account the socio-economic status of the people.
3. Cost-effectiveness: Efficient and cost-effective delivery of healthcare services, always ensuring value for resources used.
4. Accountability: Accountability for the resources utilised, services provided and to the communities served at all levels of health service delivery.
5. Partnerships: Partnership with all the stakeholders, taking full advantages of the synergies provided by each stakeholder group.
6. Decentralisation: Devolution of key responsibilities, including planning, organization, coordination and control of healthcare delivery, and resources from the centre to the districts and hospitals, where health services are provided.
7. Leadership: Appropriate, efficient and effective leadership in the implementation of the strategic plan, at all stages of the healthcare delivery system.

4.5 National Health Priority Areas

The strategic plan focuses on the attainment of identified National Health Priorities. These priorities are based on the Millennium Development Goals (MDGs) and other national health priorities which are key to the improvement of the health status of Zambians.

The United Nations (UN) has adopted 8 Millennium Development Goals (MDGs), representing the global human and social development targets for the millennium. These include: 1) To eradicate extreme poverty and hunger; 2) To achieve universal primary education; 3) To promote gender equality and empower women; 4) To reduce child mortality; 5) To improve maternal health; 6) To combat HIV/AIDS, malaria and other diseases; 7) To ensure environmental sustainability; and 8) To develop a global partnership for development. The implementation timeframe for these goals is from 1990 to 2015. Out of these goals, 4, 5, 6 and 8 are directly related to the performance of the health sector.

One of the key observations of the Mid-Term Review Report (MTR) of the NHSP 2001-05 was that "…the role of the NHSP as a strategic framework was widely recognised in 2000, but maybe lacked to prioritise its strategies and to translate these strategies into a (costed) implementation plan with targets or milestones…" (MTR 2004). The lesson learnt from this observation is that it is critical for the NHSP to identify and concentrate on a limited number of national health priority areas, rather than attempt to include "everything that needs to be done" in the strategic plan. Failure or lack of prioritisation in the NHSP would not provide for the degree of focus and concentration of efforts and resources required to deal with the critical areas requiring such attention.

Therefore, while all the health care interventions are considered important and will continue to receive the necessary levels of support, the new NHSP will focus on the following 10 national health priorities. The first 6 priorities will be referred to as the public health priority interventions. The last four represent other essential priority interventions without which public health interventions cannot be delivered in an efficient and effective manner.

A) Human Resource s

1.	Human Resource crisis:	To train, recruit and retain appropriate and adequate staff at all levels.

B. Public Health Priority Interventions

2.	Child health and Nutrition:	To reduce the mortality rate among children under five.
3.	Integrated Reproductive Health:	To reduce the Maternal Mortality Ratio (MMR).
4.	HIV/AIDS, TB and STIs:	To halt and begin to reduce the spread of HIV, TB and STIs through effective interventions.
5.	Malaria:	To reduce the incidence and mortality due to malaria.
6.	Epidemics & Public Health Surveillance and Control:	To improve public health surveillance and control of epidemics.
7.	Environmental health and food safety:	To promote and implement appropriate interventions aimed at improving hygiene, access to basic sanitation, safe water and safe food.

C) Priority Integrated Support systems

8.	Essential Drugs and Medical Supplies:	To ensure availability of essential drugs and medical supplies at all levels.
9.	Infrastructure and Equipment:	To ensure availability of appropriate infrastructure and equipment at all the levels, including the availability of basic services such as water, electricity and telecommunication at all health facilities.
10	Health Research and Development	
11.	Systems Strengthening and Health Sector Governance:	To strengthen existing integrated operational systems, financing mechanisms and governance arrangements for effective policy implementation and delivery of health services.

4.6 Main Assumptions

The main assumptions underpinning the successful implementation of this strategic plan include:

- Continued peace and political stability in the country;
- Availability of adequate numbers of appropriate, well motivated and committed health workers;
- Macroeconomic stability and sustainable economic growth, leading to increased funding to the sector, improved per capita income and reduction in poverty levels;
- Increased Government prioritisation and funding to the health sector;
- Increased CPs support to SWAp and other programmes within the health sector; and
- Timely and appropriate attention to implementation of all health priority areas.

5 HUMAN RESOURCE CRISIS

5.1 Situation Analysis

Availability of appropriate human resources at all the levels of health care is a critical factor in ensuring the delivery of efficient and effective essential health services to all. Currently, the health sector in Zambia is experiencing a human resource crisis, which is significantly undermining its capacity to provide even the basic health care services to the people. Consequently, the trends in vital statistics such as life expectancy, maternal, infant and child mortality point to a rapid deterioration in the nation's health status.

Serious HIV/AIDS related opportunistic infections, such as tuberculosis, are on the rise and the BHCP is unevenly and often barely provided. The already inadequate health systems in Zambia have suffered further deteriorations due to high staff attrition rates attributed to the migration of health professions and HIV/AIDS related deaths. The extent of the crisis is such that:

- Many Rural Health Centres have no staff or are staffed by untrained personnel;
- Wards are grossly understaffed with dozens of patients attended to by one nurse; and
- New facilities have been opened without additional staff to run them.

Several contributing factors have been associated with this crisis, including:

- Poor and un-attractive conditions of service;
- Emergence of a competitive local, regional and international market for health staff;
- Growing reluctance of qualified medical staff to serve in rural locations;
- Increasing demands on health staff due to increases in the numbers of HIV/AIDS patients;
- Increased absence from work and high staff deaths attributable to the HIV/AIDS epidemic; and
- Restrictions on new staff recruitments arising from the HIPC completion conditionalities. However, these restrictions were recently lifted for the health sector.

These and other problems are not new to the sector, and numerous reports have been written about them drawing attention to the looming catastrophe. Most recently, in February 2004, the report on the Mid Term Review of the National Health Strategic Plan (MTR) observed that the human resource situation in the country's health sector was getting closer to becoming a disaster. However, the main problem has been the lack of a comprehensive response to these problems.

Table 7 below presents an analysis of staffing levels against the recently recommended staff establishment. The table also presents an analysis of the existing and recommended staff/population ratios.

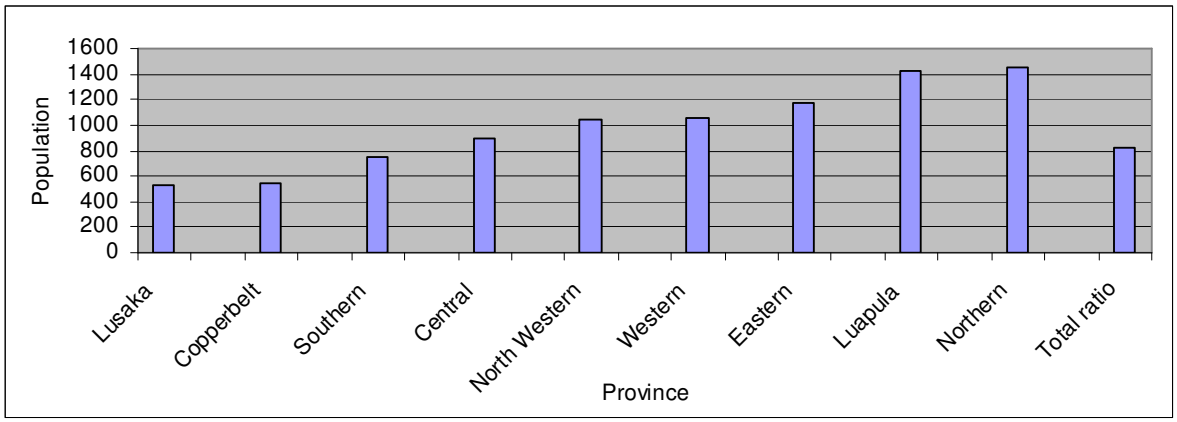
Table 7: Staffing Levels and Staff/Population Ratios

	STAFFING LEVELS			STAFF/POPULATION RATIOS		
Staff Category	Existing Staff	Recommended Establishment (2005)	Variance	Existing Staff	Existing Staff/ Population Ratios, 1:	Recommended Staff/Population Ratios, 1:
Doctors	646	2,300	1,654	646	17,589	4,940
Nurses	6,096	16,732	10,636	6,096	1,864	679
Mid Wives	2,273	5,600	3,327	2,273	4,999	2,029
Clinical Officers	1,161	4,000	2,839	1,161	9,787	2,841
Pharmacists	24	42	18	24	473,450	270,543
Pharmacy Tech	84	120	36	84	135,271	94,690
Lab. Scientists	25	50	25	25	454,512	227,256
Lab. Technologists	100	210	110	100	113,628	54,109
Lab. Technician	292	1,300	1,008	292	38,914	8,741
EHO	53	120	67	53	214,393	94,690
EH Technologist	32	220	188	32	355,088	51,649
EH Technicians	718	1,300	582	718	15,826	8,741
Dental Surgeon	14	33	19	14	811,629	344,327
Dental Technologist	40	300	260	40	284,070	37,876
Dental Therapist	2	300	298	2	5,681,402	37,876
Physiotherapist (Degree level)	0	50	50	0	-	227,256
Physiotherapist (Diploma level)	86	250	164	86	132,126	45,451
Radiologists	3	33	30	3	3,787,601	344,327
Radiographers	139	200	61	139	81,747	56,814
Paramedics	320	6,000	5,680	320	35,509	1,894
Nutritionist	65	200	135	65	174,812	56,814
Support Staff	11,003	10,000	-1,003	11,003	1,033	1,136
Total	**23,176**	**49,360**	**26,184**	**23,176**	**490**	**230**

Source: Ministry of Health HRIS database

Based on the above analysis, the current health sector human resource capacity is estimated at about 50% of the recommended establishment.

Diagram 1: Ratio of professional staff to population by province



Source: Ministry of Health HRIS Database

The World Health Organization (WHO) has recommended the following Staff/Population ratios for Africa, 1:5,000 for doctors and 1:700 for nurses. Table 7 and Diagram 1 present analyses of staff/population ratios for Zambia. Based on this analysis, it could be observed that the aggregate Staff/Population ratio for Zambia is three times higher than the recommended WHO staff population ratios for doctors and nurses, which means that the Zambian health staff are significantly overworked.

An analysis of provincial data shows significant disparities. Although provinces such as Lusaka might have a doctor population ratio of 1:6,247, remote provinces such as the Northern Province have a ratio of 1:65,763. This illustration demonstrates inequities in the delivery of the BHCP in the country. As could be observed from Table 7 and Diagram 1, there are significant imbalances in the distribution of staff across provinces, districts and health facilities. Several contributing factors have been identified for the poor distribution of qualified health staff to rural areas, which include:

- Highly qualified staff feel intellectually and socially isolated in rural communities and hence reluctant to work in rural areas;
- Poor standards of accommodation;
- Amenities, such as electricity and phones, that staff have been accustomed to elsewhere, are absent in rural areas;
- Transport to maintain contact with family and colleagues is limited;
- Professional support and staff development is lacking in rural areas;
- Educational facilities for children are below the standards that they are used to; and
- The range of professional skills required may not be matched by prior training.

The issues raised above, suggest that any programme to strengthen the staffing levels in remote locations requires a broad based, yet integrated approach. The other challenge facing the health sector is in the area of professional education. Professional and continuing education in Zambia is being challenged from four fronts:

- Need outpaces production of health workers by training institutions, especially with the ever-increasing burden of disease brought about by HIV/AIDS, resurgent epidemics and inadequate funding of training institutions;
- Training priorities and curricula for nurses and some undergraduate medical professional courses are not consistent with needs and require updating to ensure their relevance to local conditions and demands; and
- In-service training is not properly integrated and coordinated, leading to significant numbers of front line staff spending more time attending in-service programmes than providing the service.

Several initiatives have been applied at various levels within the health sector, aimed at addressing the human resource crisis. These include:

- Government initiatives such as: the on-going restructuring of the Ministry; exemption of the social sectors from the public sector employment freeze; a total of K32 Billion allocated to the sector, over and above the normal Personal Emoluments budget, to be used for recruitment and retention of staff; and the introduction of a loan scheme for public health workers;

- District initiatives towards the provision of transport, group performance incentive schemes, top-up salaries for staff in remote areas, renovation of houses, electrification using solar in remote areas and many more. These initiatives have been implemented in a few districts such as Katete and Sinazongwe; and
- Initiatives implemented through support from Cooperating Partners such as: the Zambia Health Workers' Retention Scheme, currently being piloted amongst medical doctors in rural areas; the recruitment of 9 Clinical Care Specialists for the provincial offices, through the Health Systems Support Project (HSSP); programme specific top-up allowances within various district health management teams; the Luapula province renovation and construction of housing for medical staff; the North Western province Zambia Enrolled Midwifery training that has institutional and scholarship support where students are trained within North Western province and bonded for two years.

There is need for the Ministry to accelerate the scaling up of these initiatives based on the lessons learnt. Following Government's decision to merge MOH Headquarters and CBoH, the main challenge in this area will be to carefully manage the transformation in order to ensure that reasonable levels of staff motivation are maintained and critical staff are retained.

5.2 Objective

To provide a well motivated, committed and skilled professional workforce who will deliver cost effective quality health care services as close to the family as possible.

5.3 Strategies

1. Increase the numbers of trained staff and ensure their equitable distribution, by:
   - Increasing training output through expansion of the number of training places available;
   - Increasing the number of applicants for training by widening participation;
   - Strengthening and improving coordination of the in-service training system; and
   - Improving the numbers of skilled health workers in post, through deployment and retention, based on the principle of equity;
2. Increase productivity and performance of health workers, by:
   - Improving the quality and cost-effectiveness of pre and in-service training;
   - Designing appropriate tailor-made courses suited to the national needs;
   - Improving performance management capacity; and
   - Improving occupational health and workplace policies;
3. Ensure effective, ongoing and coordinated approach to human resource planning across the sector, through coordination of human resource planning, based on the available data and development of monitoring and evaluation systems to track progress of implementing the HR plan;
4. Strengthen human resource planning, management and development systems at all levels, through:
   - Reviewing HR functions in the light of the on-going restructuring and decentralisation;
   - Development of a capacity development plan for improving strategic and operational planning, management and HRM/D capacity;
   - Development and implementation of HR planning, management and development systems at all levels; and
   - Improvement of recruitment and equitable deployment procedures for HR and management staff; and

5. Recruit all graduating students, retiring critical cadres, attract Zambian health workers in the region, foreign interns, old retired expatriate specialist and twining of local with foreign institutions for exchange of expertise in specialized areas in order to fill the human resource gaps in the health sector;
6. Promote the retention of health workers, through the provision of monetary and non-monetary incentives, such as salary supplementation outside the Government's PE budget and provision of appropriate accommodation; and
7. Strengthen regulatory role of certification and registration of health professionals in order to effectively monitor and control brain drain.

5.4 Expected Outputs

1. 100 medical doctors and 500 nurses produced annually;
2. 250 graduates produced through direct entry midwifery;
3. 3 training institutions renovated annually;
4. 400 Zambian doctors and nurses recruited through a retainer package;
5. 400 interns and 50 old retired specialists recruited under bilateral agreements;
6. 9 second level hospitals twinned with foreign health institutions;
7. Effective staff motivation and retention package implemented in 2006;
8. Human Resource Management Systems re-engineered at all levels;
9. Mandatory rural posting for all graduates implemented by December 2006; and
10. Information on Zambian health workers abroad compiled and published annually.

5.5 Key Indicators

1. % of establishment filled;
2. Staff/Population Ratio;
3. Number of graduates produced (Doctors, Nurses, Mid-wives and other paramedics);
4. Number of staff recruited; and
5. Staff Attrition Ratios.

6 PUBLIC HEALTH PRIORITY INTERVENTIONS

6.1 Child Health and Nutrition

6.1.1 Situation Analysis

Zambia has an Under-five Mortality Rate (U-5 MR) of 168 per 1,000 live births, an Infant Mortality Rate (IMR) of 95 and Neo-natal Death Rate (NNDR) of 37 per 1,000 live births (ZDHS 2001-2002). The major causes of child mortality are malaria, respiratory infection, diarrhoea, malnutrition and anemia. HIV/AIDS is increasingly contributing to morbidity and mortality in children. Malnutrition has been on an increase, which is attributed to the worsening poverty levels and increase in food insecurity as well as suboptimal infant and young child feeding practices. According to available statistics, 70% of the population are food insecure, 47% of the children are stunted, 28% are underweight, while 5% are wasted (ZDHS 2001-20). These rates are among the highest in the region. There is also a general critical deficiency of micro-nutrients (iodine, iron and Vitamin A) among both children and expecting mothers.

Under the 2001-2005 NHSP, various child health interventions/strategies were implemented. These included promotion and support for nutrition, immunization and management of common childhood illnesses. Immunization coverage in Zambia is higher than in most Sub-Saharan African countries, with coverage rates for measles, DPT3 and polio in the range of 80-85% and BCG at above 90% of the eligible populations. Full immunization coverage in 2004 stood at 77% (Economic Report 2004).

Although child mortality rates were decreasing from 1955 to 1980, a progressive increase was noted between 1980 and 1999. However, there is an indication of a slight decrease between 1996 and 2002. During the period from 1992 to 2002, the U-5 MR declined by 12%, from 191 per 1,000 live births to 168, while IMR declined by 11% from 107 per 1,000 live births to 95 (ZDHS 2001/2). Despite these decreases, the current child mortality rates, are still unacceptably high. In this respect, Zambia is committed to reducing child mortality by two thirds (to 63/1000 live births) in 2015, from the 1990 figures as per the MDGs[1].

Although improvements have been noted in child health the constraints in achieving high impact include the inadequate coverage of effective child health interventions and the poor quality of services provided. The major reasons for this include the critical shortage of skilled staff, weak infrastructure and inadequate funding for child health interventions. It is envisaged that during the life of this strategic plan, child health will be a key agenda item both globally and nationally.

The challenge for the health sector is to accelerate implementation of effective child survival interventions in the country, targeting areas of most need. Programs and strategies for child health need to be significantly scaled-up, including, immunization, management of childhood infections, management of the new born, nutrition promotion and strengthening of school health programmes.

6.1.2 Objective

To reduce Under-5 MR by 20%, from the current level of 168 per 1,000 live births to 134 by 2011.

6.1.3 Strategies

1. Scale up and strengthen community and facility based Integrated Management of Child Illnesses (IMCI) strategy in all districts;
2. Improve care for severely sick children at all district hospitals;
3. Strengthen the Expanded Programme for Immunisation (EPI) in all districts;
4. Strengthen the care of new born babies in communities and all health facilities;
5. Promote and strengthen the involvement of the private sector in child survival programs;
6. Strengthen mechanisms for regulation and coordination of nutrition;
7. Promote appropriate diets and lifestyles, including appropriate exclusive breast feeding, dietary diversification, supplementation and expansion of micro-nutrient fortification of major food commodities; and
8. Facilitate the strengthening and expansion of the school health program in the country.

6.1.4 Expected Outputs

1. 80% of health centre staff trained in Integrated Management of Childhood Illness (IMCI) case management;
2. 80% of health centers managing children according to IMCI guidelines;
3. 80% of district hospitals able to provide appropriate Emergency, Triage and Treatment of sick children;
4. 80% of districts promoting at least six priority practices in community IMCI;
5. Full immunisation coverage of at least 80% in all districts;
6. 50% of health workers in Maternal and Child Health units at all levels trained in Essential Newborn care;
7. Number of children exclusively breastfed for the first six months of life increased from 40% to 60%; and
8. Vitamin A supplementation increased from 80% to 90%.

6.1.5 Key Indicators

1. Under-5 Mortality Rate;
2. Infant Mortality Rate;
3. Neo-natal Mortality Rate;
4. % of children less than six months who are on exclusive breast feeding;
5. % of children aged 6-59 months receiving vitamin A supplementation
6. % of children aged 12 months who are fully immunized
7. Proportion of IMCI trained health centre staff
8. Cases of malaria, pneumonia and diarrhoea presented to health facilities
9. Proportion of Maternal and Child health workers trained in Essential newborn care

6.2 Integrated Reproductive Health

6.2.1 Situation Analysis

Zambia has one of the highest Maternal Mortality Ratios (MMR) in the world and safe motherhood is far from being assured. The MDG for Zambia is to reduce Maternal Mortality Ratio (MMR) by three quarters, i.e. to 162 deaths per 100,000 live births by 2015. However, the country is unlikely to achieve this goal in the remaining 10 years. Despite high antenatal attendance, currently estimated at 80% for urban and 68% for rural areas, MMR has increased from 649 per 100,000 live births in 1996 to 729 in 2002 (ZDHS-2001/02). It is estimated that approximately 50% of maternal mortality is directly attributed to postpartum hemorrhage, sepsis, obstructed labour, post-abortion complications and eclampsia. Indirect causes of maternal mortality include malaria, anemia and HIV/AIDS related conditions. Other contributing factors include delays in accessing healthcare at community and health center levels. Although 90% of all pregnant women receive some kind of antenatal care, only 43% deliver in health facilities. The Total Fertility Rate (TFR) has been decreasing slowly but still remains high. Access to family planning services is a key determinant for TFR. In this respect, the use of modern contraceptives accessed through the public health sector increased from 56% in 1992 to 61% in 2001/02 (ZDHS 2001-02). The level of awareness of ART has improved, with about 500 women receiving counseling each month countrywide.

Several interventions were implemented in this area including, the strengthening of reproductive health services through stronger referral systems, purchase of 86 ambulances for distribution to all the districts, integration of PMTCT in Reproductive Health, improvements in adolescent health, promotion of positive male involvement, improved co-ordination and collaboration between actors, and procurement of equipment and drug supplies for essential obstetric care in all the 72 districts. The Post Abortion Task Force was formed in 2000, whose main role is to integrate management of abortions with prevention infection techniques and family planning counseling and provision. Further, within the framework of the RH sub-committee and other smaller sub-committees, such as safe motherhood and standardisation, effective partnerships were established among CBoH, UN agencies, CPs and NGOs. All these efforts contributed to the increase in the number of supervised deliveries from 44% in 2001 to 55% in 2003 (these figures include deliveries supervised by TBAs). The national antenatal coverage also increased from 86% in 2001 to 95% in 2003, though the quality of antenatal services still remained below expected standards.

The main constraints affecting IRH include: the slow pace in developing policies, which limits implementation of some interventions; shortage of appropriate personnel; poor transport and communication facilities; social-cultural factors, such as the belief that seeking care early in labour is a sign of weakness; delays in reaching facilities due to long distances; inadequate infrastructure such as space, lighting, lack of privacy in some facilities; and inadequacy of drugs and other essential equipment. These factors contribute to delays in providing care at the facilities and consequently contribute to problems of unsupervised deliveries.

The challenge for the Ministry is to scale up the delivery of services and the demand for key services among the population within the limited resources that are currently available. There is an acute shortages of human resources and transport at both primary and referral levels, which adversely affects emergency obstetrics.

Efforts are needed to change health seeking behaviour, including socio-cultural factors which lead to delays in seeking health care. The quality of services also needs to improve: constant delays in the provision of care leads to low use of health facilities and results in an increase of unsupervised deliveries and in poor quality of ANC.

6.2.2 Objective

To increase access to integrated reproductive health and family planning services that reduce the Maternal Mortality Ratio (MMR) by one quarter, from 729 per 100,000 live births to 547 by 2011.

6.2.3 Strategies

1. Strengthen the quality and expand coverage of essential obstetrics, including ANC, delivery and post-natal services;
2. Provision of emergency obstetric care as per national guidelines for different levels of care;
3. Strengthen family planning and contraceptive choice programmes, with a special focus on rural districts;
4. Accelerate midwifery training, ensure equitable distribution and retention of midwives;
5. Promote continuum of care from traditional birth attendants to referral centres through provision of appropriate training, tools, logistical support and incentives; and
6. Strengthen programmes for health education, screening, treatment and care of cervical, breast and prostate cancers.

6.2.4 Expected Outputs

1. Maternal Case Fatality Rate reduced by one third by 2011;
2. Focused - ANC increased from 70% to 80%;
3. Increase in deliveries by skilled (attendants) from the estimated 43% (2005) to 50%;
4. Increase in facility deliveries from 30% to 50% for rural areas and from 70% to 80% for urban areas;
5. Modern contraceptive prevalence rate increased from 23% to 35%;
6. Number of mid-wives at health centres increased from the existing 2,273 (2005) to 2,700 by 2011;
7. Year on year increases in the number of women of reproductive age screened at least once for cervical cancer (baseline figure does not seem available.

6.2.5 Key Indicators

1. ANC Coverage;
2. Antenatal visits per client;
3. Births assisted by skilled health personnel;
4. Maternal Case Fatality Rate;
5. Caesarian Section Rate;
6. Contraception Prevalence Rate;
7. Maternal Mortality Ratio;
8. Proportion of Teenage Pregnancies; and
9. Proportion of health centres providing screening services for cervical cancer.

6.3 HIV/AIDS, STIs and Blood Safety

6.3.1 Situation Analysis

HIV prevalence in the general population is high, with 16% of the population aged 15-49 years being HIV positive (ZDHS, 2001-2002). Prevalence rates are higher in urban than rural populations, estimated at 23% and 11% respectively. Prevalence rates also vary among geographical areas, the highest at 22% was Lusaka and the lowest at 8% was the Northern Province. Women were more vulnerable than men, with prevalence rates of 18% and 13% respectively, which calls for gender sensitive interventions. About 8% of boys and 17% of girls aged 15-24 are living with HIV and approximately 39.5% of babies born to HIV positive mothers are infected with the virus. Over 10% of the reported outpatient attendance to clinics is due to STIs (CBoH Syndromic Guidelines). The 2001-2002 ZDHS shows that 7 % of women and 8% of men in the 15-49 age group have Syphilis.

During the duration of the NHSP 2001-05, the Government took major steps towards the strengthening of the policy framework for fighting the HIV/AIDS epidemic. This included the following: all government line ministries, including the Ministry of Health, developed action plans on the implementation of HIV/AIDS at the work place; in 2002, a National Action Plan for the implementation of AIDS-related activities was adopted; the HIV/AIDS Policy was finalised and adopted by Cabinet; and in 2003, the National HIV/AIDS and Infection Prevention Committee was established by CBOH. Generally, the awareness and mitigation of HIV/AIDS at work places has improved and the fight against the evils of stigma and discrimination at work places has been intensified.

Within the National HIV/AIDS, TB and STI Policy and Strategic Framework, the health sector has been implementing several interventions. The Counseling Testing and Care (CTC) programme was strengthened and expanded to 420 centres country-wide. Similarly, the Prevention of Mother to Child Transmission (PMTCT) programme was strengthened and expanded to 220 centres. CTC is the entry point for PMTCT. In 2004, over 80, 000 women were tested at these centres and 95% of those who tested HIV positive were put on Nevirapine. According to the available statistics, in 2004, at least 12% of the expected number of pregnant women in the country were tested for HIV through the PMTCT programme. HIV prevalence at PMTCT sites is estimated at 23%, which is higher than the 19% prevalence recorded at sentinel surveillance sites. Anti-Retroviral Therapy (ART) activities were also scaled up. In this respect, a total of 700 medical personnel were trained in the administration of ART and management of opportunistic infections. The number of centres providing ART increased from 2 in 2003 to 84 in 2005. As a result of all these efforts, the level of ART awareness improved significantly leading to an increase in the number of eligible patients accessing ART from 4,000 patients in 2003 to about 32,144 by August 2005. The national target has been to have 100,000 eligible HIV patients on ART by end of 2005 (50% of each year's demand).

Home Based Care (HBC) activities were scaled up to all 72 districts and a total of 305 trainers were trained to establish and strengthen palliative care in the communities. The HBC program has been primarily implemented through NGOs and Faith Based Organiations mainly along the line of rail. There is therefore a need for the District Health Management Teams to own and coordinate the delivery of this programme by these organisations.

In the area of STIs, 3, 600 health workers were trained in Syndromic Management. Youth Friendly Health Services were established in 50 districts and require expansion to cover all the health centres. STI treatment protocols and guidelines were revised and are being used as reference materials by health facilities.

Safe blood transfusion is one of the most effective direct methods of preventing the transmission of HIV and other blood borne infections and is one of the major strategies in the fight against the spread of HIV. It is also a life saving therapy with significant impact on child health and safe motherhood programmes. Over the past years, the operations of the Zambia National Blood Transfusion Service (ZNBTS) were strengthened through increased financial and technical support. Significant achievements have been recorded, including: Blood collections have increased from an annual average of 40,000 units by 2004 to 70,000 units in 2005 (forecast), HIV prevalence in donated blood has reduced from over 25% in the late 1980's to around 5%; all blood collected is being tested for HIV, hepatitis B and C and syphilis in accordance with the national and WHO guidelines; and the coordination of the programme has generally improved.

HIV/AIDS will continue to present significant challenges to the health sector. Currently, multi-sectoral coordination at provincial and district levels is still limited, and there is lack of capacity to scale up programmes using best practices. Shortages of HIV test kits and specialized testing equipment still exist. Although VCT services have expanded, in most districts, especially those in remote areas, only a few health facilities offer these services. There is also need to further strengthen blood safety through rationalisation of blood banks involved in collecting and screening of blood. Even though substantial funds were received from the Global Fund (GF) and the President's Emergency Plan for AIDS Relief (PEPFAR), the need to mainstream these activities into national and district level action plans remains a major challenge.

6.3.2 Objective

To halt and begin to reduce the spread of HIV/AIDS and STIs by increasing access to quality HIV/AIDS and STI interventions.

6.3.3 Strategies

Within the National HIV/AIDS, TB and STIs Policy and Strategic Framework, the following strategies will be implemented:

1. Scale-up prevention activities through increased promotion and support to ABC programmes and culturally sensitive IEC;
2. Increase access to HIV counseling and testing, in health facilities and at community level;
3. Strengthen PMTCT activities through integration with Reproductive and Child Health and routine HIV testing in antenatal clinics;
4. Develop and implement HIV/AIDS work place policies at the provincial and district levels;
5. Expand access to ART for eligible adults and children;
6. Strengthen and scale up HBC activities;
7. Expand access to STI interventions;
8. Further strengthen the national blood transfusion services so as to ensure equitable and affordable access to adequate safe blood and blood products; and
9. Facilitate the strengthening of the multi-sectoral response to HIV/AIDS;

6.3.4 Expected Outputs

1. HIV/AIDS Prevalence reduced from 16% to 12% by 2011;
2. Increased % of people aged 15 – 24 testing HIV positive from (????);
3. Prevalence of Syphilis reduced from 8% to 5% among people aged 15-49 years by 2011
4. Number of CTC centres in health facilities and at community level increased from 420 to xxx by 2011;
5. Mother to Child Transmission Rate of HIV reduced from 39.5% to 22% by 2011;
6. HIV/AIDS at work place programmes implemented in all provinces and districts;
7. 60% of all eligible HIV/AIDS patients (adults and children) put on ART by 2011;
8. 75% of Health Centres with functional HBC program by 2011; and
9. Blood collections increased from 70,000 units per year to 100,000 units by 2011, and mandatory adherence to WHO guidelines on blood safety continued.

6.3.5 Key Indicators

1. HIV and STIs incidence and prevalence rates by age, sex and geographical area;
2. Number of people counseled, tested and received results;
3. Number of CTC centres;
4. % of pregnant women testing positive for HIV;
5. % of babies testing positive for HIV at 18 months;
6. Number of centres with HIV/AIDS at work place programmes at provincial and district levels;
7. Number of people on ART treatment, by geographical area, facility, sex and age;
8. Number of chronically ill patients registered with HBC programmes;
9. Number of blood units collected; and
10. % of blood collected that has been screened in accordance with WHO guidelines.

6.4 Tuberculosis (TB)

6.4.1 Situation Analysis

TB is one of the major non-pneumonia respiratory infections in Zambia. Since 1985, the TB notification rate has increased from 105 per 100,000 population to 545 in 2002. The increase was largely associated with the HIV/AIDS epidemic, which is closely linked to TB prevalence. It is currently estimated that 70% of patients with TB are HIV positive. The peak age group for TB is 20-35 years and the annual risk of infection in Zambia is estimated to be around 2.5%.

The target for the national cure rate and treatment success rate is 85% by end of 2005. Even though these targets have not yet been reached, significant progress is being made in the fight against TB. In the recent years, cure rates have improved from 58% in 2001 to 64% in 2002 and 73% in 2003. Similarly, the treatment success rate improved from 77% in 2002 to 79% in 2003. These improvements were largely attributed to the successful implementation of a number of interventions, including: the expansion of the Directly Observed Treatment Scheme (DOTS) short courses to all districts; improved drug compliance; improved supply of TB drugs; cascade training of provincial and district staff in laboratory diagnosis and TB management; renovation of the Chest Diseases Laboratory (TB Reference Laboratory) in Lusaka; procurement of adequate microscopes; procurement of transport (vehicles, motor bikes, water motor boat engines and bicycles) for TB activities at all levels; and increased community involvement.

The main constraints include: the lean managerial structure at central level and lack of clear reporting structures at lower levels; inadequate diagnostic centers at district level; poor quality of diagnosis; inadequate laboratory supplies and equipment; shortage of appropriate laboratory personnel at district level; inadequate supervision of TB activities at district level; inadequate of TB integration with other interrelated diseases; lack of coordination between the public and private sectors; and high poverty levels leading to poor nutritional status among TB patients and consequently poor treatment compliance. The challenge for MOH is to develop strategies that would effectively deal with these constraints and provide for improved services throughout the country.

6.4.2 Objective

To halt and begin to reduce the spread of TB through effective interventions

6.4.3 Strategies

1. Review the organisation and management structures and relationships to ensure effective coordination of the TB programme, through the on-going sector-wide restructuring;
2. Support and strengthen health systems for TB control at all levels;
3. Expand and strengthen the TB DOTS/DOTS plus programmes in all districts;
4. Scale-up and strengthen diagnostic centres in all districts;
5. Introduce and strengthen TB/HIV collaborative activities in all districts;
6. Develop and implement a BCC strategy for TB and TB/HIV activities;
7. Improve the nutritional and social economic status of TB patients and caregivers;
8. Scale up public/private partnerships in TB/HIV programmes;
9. Increase advocacy, awareness, prevention and management of TB; and
10. Develop an operational research agenda to ensure continuous quality for the TB control programme.

6.4.4 Expected Outputs

1. TB Central Unit staff increased from 2 to 5, and a position for one TB Officer included in the establishments at provincial and district levels by 2008;
2. Regular support and supervision provided at all levels by 2008. TB awareness and treatment rates increased;
3. 100% of population covered by DOTS activities by 2008;
4. Smear microscopy centers providing quality assured TB diagnostic services established in all 72 districts by 2008
5. Quality DOTS and TB/HIV collaborative activities implemented by the private sector/communities at least in 3 high burden provinces by 2011;
6. BCC strategy for TB/HIV implemented in all districts by 2008;
7. All eligible TB patients to have access to nutrition supplementation by 2010;
8. All treatment supporters to have access to Income Generating Activities (IGAs) by 2010; and
9. 50% of the districts to include a plan for operational research in their work plans by 2011.
10. TB awareness levels increased.

6.4.5 Key Indicators

1. TB Case detection rate (Number of patients tested for TB);
2. TB prevalence rates;
3. TB Cure rates;
4. % population covered by DOTS;
5. % of TB patients tested for HIV;
6. % of HIV patients screened for TB;
7. Number and % of private clinics receiving free TB drugs from the public sector;
8. % of eligible TB/HIV patients accessing ARVs;
9. % of staff in the private sector trained in TB/HIV, TB/DOTS;
10. % of eligible patients who access food supplements;
11. % of eligible patients and care givers who have access to IGAs;
12. % of districts including operational research in their plans; and
13. Number of regular support and supervisory visits conducted.

6.5 Malaria

6.5.1 Situation Analysis

Malaria is a major public health problem in Zambia. It is the leading cause of morbidity and mortality, accounting for 45% of all hospitalizations and outpatient attendances and 50% of cases among children under-five years of age (HMIS 2004). The National Malaria Control Centre (NMCC) estimates that malaria is responsible for nearly 4.3 million clinical cases and over 50,000 deaths per year, including up to 20% of maternal mortality. The National Health Strategic Plan (NHSP) of 2001-2005 set the target to reduce malaria incidence rate to 300 per 1,000 population by the year 2005. However, this target is yet to be achieved, as malaria incidence in 2004 was 383 per 1,000 population. Over the past three decades, malaria incidence rates in Zambia tripled, from 121 per 1,000 population in 1976 to 383 in 2004. Statistics also indicate that over the past three years, the national malaria incidence rate has been fluctuating, increasing from 388 in 2002 to 425 in 2003 and then dropping to 383 in 2004. In 2004, the malaria case fatality rate (in hospitals only) remained high at 43 per 1,000 admissions for children under the age of five years, 65 for the over five and 33 as overall for all age groups. Several factors have contributed to this increase in malaria incidences, and the following have been identified as the major factors: the spread of drug resistance, reduced vector control, decreased access to health care, HIV and poverty levels.

Within the framework of the Roll Back Malaria (RBM) initiative, through the NMCC, the Ministry of Health has been implementing a number of malaria control interventions. Over the past five years, Zambia has made significant efforts towards the development of an appropriate policy framework and infrastructure capacity required to accelerate malaria control. The major achievements include: the change in the malaria treatment policy to address the emergence of chloroquine-resistant strains, by adopting Artemisinin combination therapy (ACT) as the standard for care countrywide; decentralized programming, leading to capacity development at district level; introduction of Intermittent Presumptive Treatment (IPT) for pregnant women; in-door residual spraying (IRS) in 8 selected districts; improvements in methods of diagnosis for malaria; promotion of the use of Insecticide Treated Nets (ITN); staff training; improvements in data and information capturing and management; strengthened public/private partnerships in malaria control; and increased resource mobilisation efforts.

The Global Fund against HIV/AIDS, TB and Malaria has awarded Zambia a total of US$ 82.77 million over a period of 5 years under 1st and 4th Rounds.

The country has already made significant achievements in the process of developing the necessary policy framework and in enhancing the technical, administrative and financial capacities for scaling up the fight against malaria. A five year strategic plan aimed at rapidly scaling up the malaria control interventions has already been developed and several key strategies have since been ratified by the Roll Back Malaria (RBM) partners and the Government. Significant financial resources have also been committed to the fight against malaria. Major challenges for the next six years would include: the need to continue sourcing adequate resources for scaling up to meet the demand for ITNs; inability by most poor people in rural areas to purchase ITNs; the need to scale up the in-door residual spraying programme to from the 8 selected pilot districts to IRS eligible districts; need to strengthen partnerships with the NGOs involved in malaria prevention and control; staff retention and training staff; shortage of personnel at most health centres; and need to provide adequate and appropriate diagnostic equipment for detection of malaria.

6.5.2 Objective

To halt and reduce the incidence of malaria by 75% and mortality due to malaria in children under five by 20%.

6.5.3 Strategies

Within the framework of the National Malaria Programme, the following will be the main strategies during the duration of this plan:

1. Rapid scale up of malaria prevention, through integrated vector management interventions, including the access and usage of ITNs and In-door Residual Spraying (IRN);
2. Scale up prevention of malaria during pregnancy, through increased access to IPT, ITN and anemia reduction by expectant mothers;
3. Improve laboratory diagnosis for malaria, by progressively extending the use of microscopy method of diagnosis to all health facilities, while in the interim Rapid Diagnostic Test Kits (RDTs) are used;
4. Ensure prompt and effective malaria case management by scale up the use of ACT (Coartem) as the treatment of choice by extending its use to the private sector and community health workers, strengthen the malaria component of c-IMCI and strengthening referral systems;
5. Strengthen national, provincial and district health systems' capacity to effectively and efficiently plan, implement and manage malaria control efforts;
6. Develop an efficient and effective system for procurement and supplies management of malaria specific commodities;
7. Strengthen and expand strategic private/public, multi-sectoral and community partnerships for delivery of high impact malaria prevention and control efforts at all levels of the health system;
8. Develop and implement an effective information, education and communication system in order to impart knowledge and skills to families and communities for effective prevention and control of malaria;

9. Strengthen technical and administrative systems including M&E, financial management and operations research for efficient use of available resources; and
10. Ensure sustainable financing of the malaria programme.

6.5.4 Expected Outputs

1. At least 80% of people in eligible ITN areas of every district sleep under ITNs by December 2008;
2. At least 85% of people in eligible IRS areas of every district sleep in sprayed structures by December 2008;
3. At least 80% of women have access to the package of interventions, including a full-three course of IPT, an ITN and anemia reduction, to reduce the burden of malaria in pregnant women by December 2008;
4. At least 80% of suspected malaria patients are correctly diagnosed annually by December 2008;
5. At least 80% of malaria patients in all districts receive prompt and effective treatment according to the current drug policy, within 24 hours of onset of malaria symptoms, by December 2008;
6. Joint planning and implementation mechanisms between all partners developed by 2011;
7. Malaria data management harmonized by all partners by 2011; and
8. Malaria reporting and feedback improved in at least 90% of health facilities by 2011.

6.5.5 Key Indicators

1. Malaria incidence rate;
2. Malaria case fatality rate;
3. Number of new ITNs distributed to households;
4. Number of ITNs retreated;
5. Number of ITNs replaced;
6. Number of households sprayed following the appropriate standards and guidelines;
7. Number of functional FANC points;
8. % of pregnant women receiving all doses of IPT in antenatal clinic per pregnancy;
9. % of health facilities using microscopes for malaria testing;
10. Number of health facilities providing ACT according to the Malaria Treatment Policy;
11. % of the private partners participating in joint planning and implementation; and
12. % health facilities correctly reporting and obtaining feedback on malaria.

6.6 Epidemics Control & Public Health Surveillance

6.6.1 Situation Analysis

Zambia has for many decades been prone to outbreaks of epidemics including cholera, measles and polio, leading to significant public health concerns. In order to improve the detection and management of epidemics, in 2000, the country adopted the Integrated Disease Surveillance and Response Strategy (IDSR). This strategy aims at improving capacity at district levels to detect and respond to disease/condition outbreaks, in order to reduce levels of morbidity and mortality.

Through the use of a selected set of IDSR indicators (e.g. the proportion of epidemics reported within 48 hours), the health system seems to be steadily improving its capacity to detect and manage outbreaks of epidemics including: timely reporting of summary data, reporting of priority diseases using case based information, notification of suspected outbreaks of epidemic prone diseases, routine analysis of data, investigation of outbreaks reported through case based data, presence of functional laboratory network, appropriate response to confirmed cases of epidemic diseases, and quality of case management.

Main achievements in IDSR implementation during the first two and half years include the following: adaptation and adoption of the WHO generic IDSR technical guidelines; adaptation and adoption of the WHO IDSR training modules, a set of user-friendly modules for training health workers at district and health centre levels in surveillance; participatory approach, with involvement of selected health care workers at all levels of the health system and training experts from health training institutions; development of a three-year strategic training plan; adoption of "Cascade type" training for health personnel, in IDSR; and incorporation of staff from medical laboratories into the surveillance teams at the central, provincial and district levels.

There has been continuous acceleration in active polio surveillance activities and in maintaining certification level surveillance through heightened active surveillance at the district level. With the successful completion of the national measles immunisation campaign for children aged 6 months to 15 years (95 percent verified coverage) in June 2003, case-based surveillance for measles was started to monitor the impact of the campaign. This was preceded by measles targeted surveillance training across the country.

The quality of AFP surveillance showed improvement between 2000 and 2003. This has been in both Non-AFP case detection rate and stool adequacy. As at July 2002, the annualised Non-polio AFP rate for Zambia stood at 2.6/100,000 population aged 15 years and below.(Vaccine Preventable Diseases Bulletin, 2002).The target is = >1/100,000 population below 15 years. Figure 3.1 illustrates the changes in stool adequacy. In the control of epidemic prone diseases, surveillance activities also seem to have improved during the last two years. Cholera cases, however, continue to occur sporadically in the northern part of the country where the abundant existence of water bodies makes it difficult to implement hygiene and sanitation interventions. The cases however, are often quickly detected, confirmed by the laboratory, and appropriate responses commenced by the affected District Health Management Team. What is still of concern is the high case fatality rate (CFR) of around 4.0% observed in these outbreaks. During the past 3 years the timeliness of reporting on notifiable priority diseases has improved from 60-65% to 85% and above. Completeness of reporting has followed a similar trend.

The major constraint in scaling up the IDSR strategy has been financial resources to support the training of health workers in the integrated disease surveillance concept and practice. The challenge for the Ministry is to source adequate funding to scale up IDSR in all the districts.

6.6.2 Objective

To significantly improve public health surveillance and control of epidemics, so as to reduce morbidity and mortality associated with epidemics.

6.6.3 Strategies

1. Strengthen the country's capacity to conduct effective surveillance for both communicable and non-communicable diseases;
2. Strengthen laboratory capacity and involvement in confirming pathogens and monitoring of drug sensitivity; and
3. Review HMIS in the context of IDSR to include integrated data collection, and strengthen its capacity to monitor the burden of NCDs.

6.6.4 Expected Outputs

1. Formal surveillance structures established at all levels by 2007;
2. Staff trained and oriented to public surveillance starting from 2006;
3. All laboratories equipped with basic equipment to support public surveillance by 2007; and
4. Review and strengthening of HMIS in the context of surveillance completed by 2008.

6.6.5 Key Indicators

1. Number of staff trained in public health surveillance; and
2. % of designated surveillance laboratories with basic equipment for supporting public health surveillance activities.

6.7 Environmental Health and Food Safety

6.7.1 Situation Analysis

Poor environmental sanitation is a major source of public health problems and epidemics in Zambia. Currently, over 80% of the health conditions presented at health institutions in Zambia are diseases related to poor environmental sanitation i.e. water and food borne diseases such as cholera, dysentery and typhoid, with significant adverse impact on the poor. The aim of environmental health services in Zambia is to attain universal access to safe, wholesome, adequate water supply, acceptable sanitation and safe food as close to the family as possible.

In Zambia, over the past 20 years, access to safe drinking water among the population has improvement. In 1985, safe drinking water was only available to 40% of the population, the figure increased to 48% in 1992 and to 51% in 2002. On the other hand, access to adequate sanitation has declined from 23% of the population in 1985, to 17% in 1990 and 15% in 2000 (ZHDS 2001-02).

During the period from 2000 to 2004, significant work was done in the area of environmental health and food safety. A National Environmental Health Policy was formulated. The Food and Drugs Regulations (2001) were reviewed and updated, to take into account the changed market place in a liberalised economy, particularly in the area of food safety. Advocacy for introduction of a local BSc degree course at the University of Zambia was successfully concluded. Many Environmental Health Officers were taken up into managerial positions in District Health Management Teams (DHMTs). The Participatory Hygiene and Sanitation Transformation (PHAST) training materials for urban and rural settings were developed.

A total of 22 out of the 72 districts were trained in PHAST, a community-based methodology aimed at scaling up hygiene and sanitation programmes where they are most needed, and ensuring sustainability. CBoH developed a health care waste management plan, and three pilot sites in Livingstone, Ndola and Lusaka embarked on a solid waste management project. A manual on food safety to help in the enforcement of the law on fortification of sugar with Vit A and salt with iodine was developed and put in use.

Environmental health and food safety is a multi-sectoral problem, involving the Ministry of Health, Ministry of Energy and Water Development, and Ministry of Local Government and Housing. In order for the country to achieve the desired goals in this area, multi-sectoral collaboration will be of critical importance. In this respect, CBoH provided technical and financial support to two local authorities, Ndola and Livingstone city councils, to carry out key environmental health programmes. These included a focus on promotion of the Hazard Analysis Critical Point (HACCP) tool for food inspection. This is another intervention, which requires quick scaling out in order to have impact.

Even though significant work was done, as tabulated above, the measures still fall short in addressing some of the problems related to environmental health at the operational levels. The main constraints hampering progress in environmental health work seems to be the need to have the discipline mainstreamed into the Central Board of Health planning and operational structures, shortage of personnel with expertise in public health law enforcement, and lack of appropriate equipment for use in food inspection.

Main challenge for environmental health include the need to review some of the provisions of the Public Health Act to meet the present day emerging issues, to strengthen multi-sectoral approach to environmental health, need for MOH to scale up and strengthen PHAST in all the districts, and scale out the pilot projects on solid waste management from 2 to all the big towns and cities in Zambia.

6.7.2 Objective

To promote and improve hygiene and universal access to safe and adequate water, food safety and acceptable sanitation, with the aim of reducing the incidence of water and food borne diseases.

6.7.3 Strategies

Within the context of a multi-sectoral approach, the health sector will implement the following strategies:

1. Strengthen capacity in enforcement of environment health policies and legislation;
2. Promote the establishment of new and strengthening of existing Water, Sanitation and Hygiene Education (WASHE) Committees at national, provincial, district and sub-district levels;
3. Promote the provision of appropriate and suitable water and sanitation facilities in peri-urban and rural areas;
4. Strengthen national health care waste management at all levels of care;
5. Introduce and institutionalise Food Safety Protocols of Hazard Analysis and Critical Control Point System (HACCP);

6. Strengthen training and capacity building in environmental health; and
7. Strengthen coordination and management of environmental health at all levels of care.

6.7.4 Expected Outputs

1. Public Health Act and the Food and Drugs Act reviewed and amended by 2007;
2. National Environmental Health Policy developed by 2007;
3. WASHE Committees established and functional in all priority areas identified to be highly prone to incidences of environmental related diseases by 2010;
4. At least 50 environmental health specialists with Bsc. Degrees produced every year by the University of Zambia starting from 2008;
5. One hundred environmental health personnel trained in public health prosecution at the National Institute of Public Administration (NIPA) by 2011;
6. HCWM system strengthened in all health facilities in Zambia by end 2008;
7. HACCP system introduced by 2008; and
8. Waste disposal facilities for all hospital in the country assured by 2007.

6.7.5 Key Indicators

1. % of districts with functional WASHE Committees;
2. % of communities accessing safe drinking water within 500 metres;
3. % of public water supplies within residual chlorine levels (>0.2mg/litre);
4. % of water sources sampled complying with WHO Safe Drinking Water Guidelines and Regulations;% of communities with adequate and suitable sanitation facilities;
5. Number of environmental health graduates recruited into the system;
6. % of General dealer premises complying with Public Health Statutory Notices;
7. % of food establishments complying with Public Health Standards; and
8. % of health care facilities at district level with functional incinerators.

6.8 Other Public Health Interventions

6.8.1 Objective

To significantly strengthen the delivery of other relevant interventions in communicable and non-communicable diseases.

6.8.2 Mental Health

6.8.2.1 Situation Analysis

Mental disorders and mental ill-health, including alcohol and substance abuse constitute a significant proportion of the overall burden of disease in Zambia. Currently, the burden of mental ill health in Zambia in terms of incidence and prevalence, health care expenditure and loss of productive years of life can not be quantified. However, it is estimated that over 12.5% of the global burden of disease is caused by mental disorders.

Coordination of mental health services in Zambia, at national level, will be carried out by the Mental Health unit, through consultations and collaboration with other main stakeholders such as the Mental Health Association of Zambia (MHAZ) and Mental Health Users Network of Zambia (MHUNZA). Planning, co-ordination, and effective supervision of mental health services will be undertaken at each level namely: national, provincial, district and community levels.

A multi-sectoral and professional approach shall be adopted, with emphasis on preventive and promotion services. The main challenges in mental health include the lack of an appropriate policy and legal framework, lack of appropriate guidelines and standards for the management of mental illnesses, poor public awareness and attitude towards mental illnesses, weak partnerships, and lack of coordination for multi-sectoral responses to mental health.

6.8.2.2 Strategies

1. Strengthen the policy and legal framework for mental health;
2. Develop standards and guidelines for management of mental health services;
3. Strengthen partnerships in mental health;
4. Promote public awareness and education on mental health, especially prevention of mental illnesses;
5. Promote of the integration of mental health patients into their families and communities;
6. Promote the integration of mental health in all relevant community based programmes;
7. Facilitate inter-sectoral co-ordination in order to bring together workers from other sectors; and
8. Strengthen coordination, management, monitoring and evaluation of mental health programmes.

6.8.2.3 Expected Outputs

1. Mental Disorders Act of 1951 Cap. 535 repealed and replaced with the new Mental Health Act by March 2006;

2. Operational guidelines and standards for management of mental health problems developed by end 2006;
3. Public awareness strategy for mental health services developed by March 2006;
4. Mental Health Coordinating Committee established by January 2006; and
5. Reduction in the incidence of mental illnesses.

6.8.2.4 Key Indicators

1. Number of policies and legislation approved;
2. Number of districts using operational guidelines for mental health management;
3. Number public awareness programmes conducted;
4. Number of partnerships established; and
5. Incidence of mental illnesses.

6.8.3 Oral Health

6.8.3.1 Situation Analysis

The role of oral health has increased significantly with the advent of HIV/AIDS and its oral manifestation. Major activities carried out in oral health included: the development of guidelines on oral manifestations of HIV/AIDS; pamphlets on Cancrum Oris (noma); review of Oral Health Guidelines for levels 2 and 3; strengthening of School Oral Health Programmes in 30 districts; capacity building for dental therapists in the use of lower technologies, such as Atraumatic Restorative Technique; and the introduction a dentist degree programme at the University of Zambia.

6.8.3.2 Strategies

1. Strengthen the policy framework for Oral Health;
2. Scale up oral health services to all districts;
3. Promote oral health awareness and education;
4. Integrate oral health in child health and HIV/AIDS programmes; and
5. Strengthen oral health training.

6.8.3.3 Expected Outputs

1. Oral Health Policy approved by Dec 2006;
2. All first level referral facilities provided with at least one dentist or dental therapist by 2011;
3. Oral health promotion and education strategy designed by 2008;
4. Oral health integrated in child health and HIV/AIDS programmes by 2007; and
5. School of Dentistry at the University of Zambia opened by 2008.

6.8.3.4 Key Indicators

1. Proportion of health facilities with physical space and equipment for basic oral health care;
2. % of districts with at least one dentist or dental therapist;
3. % of children with noma identified during IMCI; and
4. Incidences of oral diseases.

6.8.4 Other Non-Communicable Diseases

6.8.4.1 Situation Analysis

Due to changes in lifestyles, diseases such as diabetes, hypertension, renal failure, tumors, and substance and alcohol abuse are becoming more prevalent. Even though there is no data on Non-Communicable Diseases (NCDs) in this country, the projections are that if not addressed appropriately, morbidity and mortality rates could rise to 60 and 65% respectively, by 2020.

6.8.4.2 Strategies

1. Develop appropriate policy and legal framework for NCDs;
2. Improve capacity of the health system to respond to NCDs;
3. Develop NCD communication and public awareness strategy;
4. Promote prevention of NCDs through advocacy of healthy lifestyles; and
5. Integrate NCDs into IDSR.

6.8.4.3 Expected Outputs

1. Disease specific policies on NCDs developed and implemented by 2008;
2. Basic equipment, tools, drugs and other supplies for management of NCDs available at all levels of care by 2007;
3. NCD communication strategy developed and implemented by 2008;
4. Health care workers trained in NCDs annually from 2006; and
5. IDSR strengthened by 2007.

6.8.4.4 Key Indicators

1. % of health facilities with physical space and equipment to provide basic care on NCDs;
2. % of population with specific health care seeking behaviour related to NCDs;
3. Number of health care workers trained in NCDs; and
4. Incidence of NCDs.

7 ESSENTIAL DRUGS AND MEDICAL SUPPLIES

7.1 Situation Analysis

The quality, efficiency and effectiveness of health service delivery are, to a large extent, determined by the availability of appropriate staff, infrastructure and equipment, and essential drugs and medical supplies. It is therefore critical that essential drugs and medical supplies are always in stock at any given health facility. In this respect, in 1999, the Ministry developed and adopted a National Drug Policy (NDP), which is based on the requirements of the BHCP. The vision of the NDP is to provide equity of access for all Zambians to good quality, safe and efficacious medicines which are affordable and rationally used as close to the family as possible. The 2001-2005 National Health Strategic Plan projected the availability of essential drugs at 85% by the year 2005.

Over the past 4 years the bulk supply of essential drugs and medical supplies was erratic, with more than 50% of essential drugs out of stock. However, the availability of rural health centre kits was fairly steady. Health Centre stocks, on average, improved from 73% in 2002 t0 76% in 2004.

A number of activities were undertaken in the area of essential drugs and medical supplies, which included:

- A three year procurement plan for the period from 2005 to 2007 was developed;
- The "Essential Drugs" and "Tracer Drugs" lists were developed, intended to help in the monitoring of stocks and management of procurement for critical drugs and supplies;
- In order to facilitate enforcement of the quality assurance legislation, in 2003 the National Drug Policy Steering Committee (NDP-SC) carried out a review of the Food and Drug Act and laboratory to establish their capacity to effectively enforce quality control on medicines. The review identified a number of weaknesses and the Government is yet to implement the recommendations; and
- In order to improve on the quality of donated drugs and medical supplies, in 2004 the Pharmacy and Poisons Board, in collaboration with various stakeholders, produced Guidelines on Donation of Drugs and Medical Supplies. However, the same have not yet been disseminated and applied.

Shortages and inappropriate clinical usage of drugs and medical supplies still remains a major problem. Efforts need to be enhanced in the dissemination and enforcement of compliance with recognized/recommended treatment guidelines and prescriptions.

7.2 Objective

To ensure availability of adequate, quality, efficacious, safe and affordable essential drugs and medical supplies at all levels, through effective procurement management and cooperation with pharmaceutical companies.

7.3 Strategies

1. Integrate the use of the "Essential Drugs" and "Tracer Drugs" lists in procurement and stock planning, management and control;
2. Undertake periodic Baseline surveys on the use of drugs and medical supplies;
3. Prepare and implement 3 year rolling procurement plans;
4. Ensure efficient, cost-effective and ethical procurement, storage and distribution of essential drugs and medical supplies. Parallel importation by the Government will only be an option, if necessary, to drive down prices of locally based suppliers;
5. Ensure adequate and timely financing of the procurement of essential drugs and medical supplies;
6. Encourage the establishment of a strong local pharmaceutical and chemical industry to lower the costs of drugs;
7. Strengthen and support Pharmacy and Therapeutics Committees at all levels to promote rational use of drugs and medical supplies; and
8. Ensure the appropriate and rational use of drugs and medical supplies at all levels, through provision and enforcement of treatment guidelines and procedures.

7.4 Expected Outputs/Indicators

1. Lists of Essential and Tracer Drugs incorporated in the procurement plans, from 2006;
2. Pharmaceutical management information system, incorporating all levels in 2006;
3. Appropriate procurement regulations and guidelines developed and enforced for all levels, in accordance with FAMS and Zambia National Tender Board (ZNTB) guidelines, in 2006;
4. Various therapeutical protocols and standards reviewed/developed, disseminated and implemented by 2007;
5. Three-year rolling procurement plans developed/updated as part of the annual MTEF planning process;
6. Establishment of the Drug Supply Fund finalise and operationalise, and the Drug Supply Budget Line (DBSL) established by end 2006; and
7. Draft legislation to transform the Pharmacy and Poisons Board into the Pharmaceutical Regulatory Authority finalized and enacted by end 2006.

8 INFRASTRUCTURE AND EQUIPMENT

8.1 Infrastructure

8.1.1 Situation Analysis

Currently, the deterioration of health infrastructure and equipment has reached a stage where urgent repairs and replacements are required in order for health facilities to function effectively. Various reasons have contributed to this state of affairs, including: the lack of financial resources, little use of existing capital-funding programmes; an emphasis on an expansion of the network rather than on the rehabilitation of the existing facilities; inadequate mobilisation of community resources; lack of a preventive maintenance policy (and guidelines); and lack of skilled staff for preventive and corrective maintenance.

Analysis of the Joint Investment Plan 2001-5 clearly shows that there is inadequate investment going to infrastructure from both GRZ and Co-operating Partners. For instance, during the period from 2001 to 2004, only USD 1,885,000 was available for infrastructure. In October 2004, the Ministry of Health and its Co-operating Partners agreed to allocate funds from the Expanded Basket to a capital basket at a monthly allocation of USD$200,000. It was also agreed that what would trigger the release of these funds to beneficiary institutions was a clearly articulated capital investment plan which outlined priority districts and interventions to be undertaken under infrastructure development.

In order to provide information which would feed into the development of a prioritised capital plan, the Ministry commissioned a health facility census in the fourth quarter of 2004. While data collection for the districts has been finalised, there are concerns with delayed finalisation of the health facility census report. It is imperative for the Ministry to embark on a speedy finalisation of the health facility census database from which various infrastructure databanks could be generated which would be used to develop infrastructure development plans. Such plans should strategically prioritise in terms of rehabilitation versus new construction, at what level of the health care delivery system interventions are being applied and the geographic location of such interventions.

The focus of health reform interventions has been the district. It is the policy of the Government to make available at least one level 1 hospital which would operate as a referral hospital to a satellite of health centres in every district. Although there are currently 74 level 1 hospitals, there are currently 19 districts without a level one referral hospital. During the implementation of this plan, more emphasis should be placed on constructing one level 1 hospital in each of the remaining districts.

Planning of health infrastructure needs to be embedded in the overall strategy for the development of the health sector. In Zambia, the need for rightsizing the health facilities is widely acknowledged, and commendable efforts have been made so far. However, there is need to speed up the process, and importantly, to develop a general, well-phased master plan which will provide guidance on issues such as, which level II Hospitals will be reclassified to Level I, which Level 1 Hospitals will be reclassified to a Health Centre and which Health Centre should become a Health Post. In practice, current planning for infrastructure ignores recurrent cost implications. Districts, hospitals and MOH are keen to use funds for capital investment, but do not have a methodology to make provisions for recurrent cost and replacement at the time of planning.

The recurrent cost coefficients of building a Health Post, a Rural Health Centre, an Urban Health Centre or a Level 1 Hospital etc are not known, but could easily be determined. It may be wise to calculate these coefficients, apply them to the proposed construction works, assess the total resources required and compare the result with the resource envelope before final investment decisions are made.

The availability and condition of infrastructure and medical equipment to support health service delivery are of critical concern for Zambia. The main challenges in this area include: the need to complete the health facility infrastructure development plan in order to ease the allocation of resources as well as prioritisation of capital projects in under-served areas; finalisation of the health facilities (infrastructure) databank to serve as a source of information for formulation of development and procurement plans for capital/infrastructure programmes; finalisation of infrastructure standards and guidelines, which will form the basis for implementation of programmes; approval of the draft maintenance policy, which will provide guidelines on how to manage repairs and maintenance of infrastructure; need to increase Government's and CPs commitment towards capital investment programmes; and the need for capacity building at district level to interpret and implement infrastructure activities.

8.1.2 Objective

To significantly improve on the availability, distribution and condition of appropriate essential infrastructure so as to improve equity of access to essential health services.

8.1.3 Strategies

1. Establish a health infrastructure database system that would provide essential information on the status of each health facility, at all levels of care;
2. Review the infrastructure standards and define the appropriate sizes and types of health facilities for the different levels of care;
3. Develop and implement a Health Infrastructure Development Plan, consistent with the overall national health needs, priorities and BHCP, paying particular attention to under-served areas. The development of this plan will be based on the principle of "prioritization";
4. Establish a capital basket for financing infrastructure development and maintenance. This will include an appropriate criteria for prioritization and selection of capital projects to benefit from this basket;
5. Promote private sector participation and public/private sector partnerships in infrastructure development;
6. Ensure effective dissemination and compliance with the approved infrastructure maintenance policy and guidelines; and
7. Build appropriate capacities in the effective development and preventive maintenance of infrastructure at district level.

8.1.4 Expected Outputs/Key Indicators

1. Census of health infrastructure completed by June 2006;
2. Infrastructure database system established and operational by end of 2006;
3. Health Infrastructure Development Plan completed and launched by end 2007 and implemented from the beginning of 2008;
4. Capital basket fund established and operational by 2007;

5. Capacity-buildings needs determined. Appropriate programmes developed and implemented by January 2007; and
6. Increase in the number of private and public/private health facilities.

8.2 Medical Equipment and Accessories

8.2.1 Situation Analysis

Efficient and effective delivery of clinical care is highly dependent on the availability of appropriate equipment and accessories, in good functioning order. Such equipment and accessories should always be properly maintained and calibrated, so as to ensure accurate diagnosis and/or performance. The list of essential equipment and accessories has already been defined for the health post, health centre and level 1 referral hospitals. However, work has continued on the development of lists for the level 2 and 3 referral hospitals.

The main challenges as far as essential medical equipment and accessories are concerned include, the need to: develop standard equipment lists for all levels of service delivery; develop appropriate equipment management plans whose objective would be to restock clinical centres with the right quantities of appropriate equipment; develop criteria to determine human resource needs for equipment management and maintenance; develop appropriate maintenance facilities, with appropriate tools and equipment; and allocate adequate budget funds for maintenance activities at all levels of service delivery.

8.2.2 Objective

To significantly improve on the availability and condition of essential medical equipment and accessories so as to ensure effective delivery of key health services.

8.2.3 Strategies

1. Develop standard checklists for essential equipment and accessories for the remaining levels, i.e. hospitals, training and statutory institutions;
2. Establish and maintain an equipment database system which will provide information on the status and adequacy of equipment at all levels of the health care delivery system;
3. Develop and implement appropriate equipment development plans so as to ensure a planned and coordinated approach to equipment management;
4. Strengthen medical imaging and radiography, through the development and implementation of policy and procedural guidelines for imaging services;
5. Ensure continuous dissemination and compliance with the established maintenance policy and guidelines at all levels; and
6. Enhance capacities for management and maintenance of equipment at all levels, through training in appropriate usage, maintenance and repairs of equipment.

8.2.4 Expected Outputs/ Key Indicators

1. Standard equipment checklists for all levels completed by December 2006;
2. Equipment database established by June 2007;
3. Equipment development plan developed and implementation commenced by January 2008;
4. Policy and procedural guidelines for medical imaging developed by 2007;

5. Guidelines on the monitoring of compliance with maintenance policy and guidelines developed and implementation commenced by January 2007; and
6. Capacity building programme in equipment maintenance, developed and implementation commenced by January 2007.

8.3 Laboratory Support Services

8.3.1 Situation Analysis

Appropriate laboratory support is a critical factor in the diagnosis and delivery of quality health care services. Laboratory requirements for health posts, health centres and 1st level hospitals have been identified, while work on the identification of requirements for the 2nd and 3rd Level referral hospitals is still going on. Currently, the importance of laboratory support has taken an even higher profile, mainly due to the scaling-up of ART, which demands certain laboratory tests for monitoring patient response to ART. Laboratory baseline data and follow up data is cardinal for the management of HIV/AIDS patients with ARVs. In Zambia, currently there are only about 75 health centres with laboratory facilities in the periphery.

Main challenges as far as provision of appropriate and essential laboratory support include: the need to upgrade laboratory infrastructure; need to improve service delivery through the provision of laboratory equipment, reagents and supplies; the need to enhance management and quality assurance systems at all levels of care; development and dissemination of policy guidelines and initiatives to support the Basic Health Care Package; and the need to ensure safety and ethics for laboratories at all levels of care.

8.3.2 Objective

To provide appropriate, efficient, cost-effective and affordable laboratory support services at health centre and hospital levels throughout the country.

8.3.3 Strategies

1. Review and maintain appropriate policy and legal framework for laboratory support;
2. Review and develop laboratory protocols and standard operating procedures;
3. Ensure adherence to laboratory protocols and standards by implementing effective quality assurance systems;
4. Ensure that laboratory infrastructure and equipment are maintained in good order;
5. Strengthen existing systems for stores management of laboratory reagents and supplies;
6. Strengthen training and capacity building for bio-medical scientists and laboratory staff; and
7. Strengthen coordination and management of laboratory services.

8.3.4 Expected Outputs/Key Indicators

1. National Medical Laboratory Policy reviewed and updated by 2007;
2. Laboratory protocols and standard operating procedures updated by 2008;
3. Quality assurance guidelines developed and implemented by 2007;
4. Number of trained bio-medical technologists and scientists increased by 50% by 2010;
5. Planned preventative maintenance system developed and implemented by 2007; and
6. Laboratory monitoring and evaluation system developed and implemented by 2007.

8.4 Medical Imaging Services

8.5.1 Situation Analysis

Medical Imaging as a science involves the application of controlled amounts of radiation on a patient's body for diagnostic or therapeutic purposes. The major components of radiography include, General Radiography, Ultrasound, Nuclear Medicine, Computerized Tomography, Magnetic Resonance Imaging and Radiotherapy. Radiology in Zambia was introduced in the early 1930s with conventional x-ray facilities being provided. Over the years other forms of imaging services such as Ultrasound, Nuclear Medicine and later Computerized Tomography have gradually been introduced in the country.

Medical Imaging is important in the provision of the Basic Health Package (BHCP) as it provides necessary diagnostic data for clinical decisions and policy guidelines at national and international level. Approximately 70% of cases in a hospital are referred to the Radiology Department at some stage of management. Imaging services are now found at a) 1st, level hospitals where basic radiological services such as simple chest and ultrasound scans are conducted b) 2nd Level Hospitals where few specialized examinations such Barium studies, ultrasound are conducted c) 3rd level hospitals where all specialized examinations are conducted including Radiotherapy services d) Imaging services are also found at the Urban Health Centres especially in the Lusaka Province.

The Zambian Government and its Cooperating Partners have been instrumental in devising, implementing and promoting Medical Imaging services. Some of the efforts undertaken are already showing positive results, e.g. Under the ORET Project, 71 hospitals will be equipped with new x-ray and ultrasound equipment, and Training will be conducted in ultrasound, radiographic application and maintenance. Further, a BSc. Degree Programme will be introduced, the Cancer Diseases Hospital has been constructed in Lusaka and will be in use by January 2006, and Tele-radiology services will be introduced at all levels of care. Research is an going activity and is being conducted in collaboration with Fontys University of the Netherlands.

However, a number of constraints have been identified in the area of Medical Imaging. The major constraints include shortage of appropriate human resources, obsolete equipment, poor infrastructure, and lack of consumables to run the departments effectively, no clear policy and standard operating procedures, lack of educational facilities for advancement in education, poor public awareness on hazards of radiation.

During the duration of this plan,

8.5.2 Objectives

To provide the health care delivery system with high quality, cost effective and safe medical imaging and radiation therapy support at various levels of health care.

8.5.3 Strategies

1. Scale up on Continued Professional Development in various imaging modalities and radiography training so as to significantly improve the technical skills of staff;

2. Develop and ensure effective dissemination of the Medical Imaging and Radiation Therapy Policy;
3. Develop Protocols and Standard Operating Procedures for management of medical imaging and radiation therapy services;
4. Develop and implement a plan for procurement, installation and maintenance of equipment;
5. Strengthen the existing logistics management systems for consumables (Developers, Fixers, chemicals etc.); and
6. Promote public awareness on the hazards of Radiation

8.5.4 Expected Outputs

1. Medical Imaging and Therapy Policy Developed by 2007;
2. Medical Imaging Protocols and Standard Operating Procedures developed and disseminated to all imaging departments by end of 2006;
3. Procurement plan for essential equipment and consumables developed as part of the procurement planning process by 2007;
4. 60% of the radiographers in hospitals trained in ultrasound, radiographic application and maintenance by the year 2010;
5. 30% of doctors needed for specialized units in oncology, radiology, nuclear medicine trained through training institutions by 2011;
6. Basic Equipment, consumables and other accessories available at all levels of care in the imaging departments by the year 2009;
7. Planned preventive maintenance system developed and implemented by 2008; and
8. Public Awareness strategy on hazards of radiation developed by February 2006.

8.5.5 Key Indicators

1. Percentage of x-ray departments at district, general and tertiary hospitals with functional imaging equipment;
2. Percentage of Radiographers Established in x-ray departments filled;
3. Number of radiological graduates recruited into the system;
4. Percentage of districts, general and tertiary x-ray department functional;
5. Percentage of imaging departments receiving adequate consumables; and
6. Number of public awareness programmes conducted.

9 SYSTEMS STRENGTHENING

CBoH has been acting as the main link between the central level structures and District and Hospital Boards, through the Provincial Health Offices (PHOs). It has been facilitating the provision of integrated technical support to the Hospital and District Health Management Boards in order to strengthen their capacities in the provision of health services. In this respect, CBoH has been co-coordinating the development of standards and guidelines for health care, work plans and budgets, systems and strategies for effective management of contracts, human resources and physical health infrastructures. CBoH has also been responsible for monitoring and evaluation of health service delivery at all levels, so as to ensure quality, efficient and effective public health services. Performance assessment tools to facilitate the monitoring of Provinces, Health Boards and Training Institutions have been developed and used regularly during technical support visits conducted to PHOs and health boards. During the period under review, CBoH also provided technical support in planning and the review of the planning processes.

A number of challenges were experienced in the provision of technical support services, including: development of management guidelines for hospitals and training institutions was not completed and as a result these institutions continued to operate without management guidelines; development of a tool to monitor community activities was not completed, which deprived the system of the much-needed information for monitoring community activities; and implementation of activities at the PHO level was also constrained by the shortage of key staff.

The main central integrated support systems and services provided to all the levels of health service delivery include: Human Resource Management Systems (HRM), Health Management Information Systems (HMIS), Financial Administrative Management Systems (FAMS), Quality Control Systems, Internal Audit; and Monitoring and Evaluation Systems. During the duration of this plan, these systems will be further strengthened, taking into account the on-going restructuring of the health sector and the national decentralisation policy.

9.1 Overall Objective

To strengthen existing operational systems, financing mechanisms and governance arrangements for efficient and effective delivery of health services.

9.2 Monitoring & Evaluation

9.2.1 Situation Analysis

The health sector in Zambia has had a functioning Monitoring and Evaluation (M&E) system for many years now though not always adequate. Its evolution has depended on the needs and advancement in technology of the time. Various attempts have been made to strengthen M&E in the sector. The 1996 setting up of the Health Management Information System (HMIS) and Financial and Administration Management System (FAMS) marked a major milestone in the development of health sector performance monitoring under health reforms. Currently the HMIS is functional at all levels though not in all aspects. Performance Appraisals are regularly done by Provincial Health Offices, Integrated Disease Surveillance Response (IDSR) is well developed for polio, measles and tetanus. Coordination of sector M&E through Sector Wide Approach (SWAp) is relatively strong centrally.

Population based surveys to feed policy and planning are regularly and consistently done. Despite these positive aspects the M&E function in the sector still has gaps. The HMIS is not fully developed and is not flexible enough to accommodate the needs of all programmes leading to development of parallel systems. This has made the coordination of M&E very difficult for the Ministry of Health. Some components such as IDSR and FAMS are not fully functional at all levels. Although alot of data is collected at all levels there is poor utilization. The central level demand for reports determining fund release has also contributed to poor information utilization by the districts. The other challenge is the inter play of HIV/AIDS, brain drain and staff shortage in the sector. Some recent developments, however, bring hope for the future. Several partners have come on board to assist government in re-aligning the M&E function. The three ones principle too is an opportunity for the government (MoH) to fully take charge and to channel resources in the areas where the sector M&E is still weak.

On the other hand, research work has been conducted in the sector but has faced a challenge of poor coordination in both legal and implementation frameworks. The national health research agenda, an effort towards strengthening research prioritization and coordination, has also lacked substantial legal and implementation backing. To a large extent the contribution of research to overall sector performance monitoring has not been mainstreamed enough to provide timely evidence for policy and action.

9.2.2 Objectives

To strengthen overall M&E system of the health sector in order to provide evidence for policy and action.

9.2.3 Strategies

1. Strengthening of the routine health care information systems building on the current HMIS assessment;
2. Development of mechanisms for conducting regular annual joint health sector reviews;
3. Strengthening population based health surveys such as Zambia Demographic Health survey (ZDHS) and sentinel surveys, and ensure devolution of ZDHS implementation in order to account for performance needs of the lower service delivery levels;
4. Strengthening mechanisms for coordination and harmonization of various health sector performance monitoring and evaluation systems;
5. Strengthening research for policy and action;
6. Development of a core indicator set that accounts for the direct health sector contribution to NDP and MDGs;
7. Strengthening of partnerships for health sector M&E at provincial and district levels including the private sector;
8. Strengthening research regulatory mechanisms and dissemination of findings for policy and action;
9. Strengthening and build capacities for M&E at all levels of the health sector;
10. Defining performance standards for service delivery at every level of care; and
11. Development of a result-based performance rewarding system at every level of service delivery.

9.2.4 Outputs/Indicators

1. Functional HMIS at district level by 2008;
2. Functional Hospital MIS at every level of care by 2008;
3. Functional M&E department in the MOH by 2007;
4. Nation health research agenda for 2006-2011 developed;
5. Core indicator set for the NHSP revised by 2007;
6. Functional M&E mini-Sector Advisory Group (SAG) at provincial and district level by 2008;
7. Health research regulatory framework (legal and implementation) developed and implemented by 2011;
8. Functional M&E system at all levels of the health service delivery by 2011;
9. Performance standards defined at every level of health care by 2009; and
10. Result-based performance rewarding system developed by 2009.

9.3 Health Management Information System

9.3.1 Situation Analysis

The Health Management Information System (HMIS) is a comprehensive system which is used for capturing and processing data within the health sector. HMIS aims at providing efficient and effective support to the planning, coordination and monitoring and evaluation of health care services, by ensuring availability of relevant, accurate, timely and accessible health care data at all levels of health care delivery.

During the period from July – August 2005, a comprehensive assessment of the HMIS was conducted by the Euro Health Group, commissioned by the European Union. This assessment concluded that the Zambian HMIS is well established and functional at all levels of the health delivery system, and that it compares favourably with HMIS' in other Africa countries.

The assessment further stated that there is a defined set of indicators and data is regularly collected and analysed. Data collection and reporting tools are in place at all health facilities and district offices, and the flow of information has been clearly setout using the "one channel" principle. Routine data is regularly analysed, on a quarterly basis, with reasonably good coverage for indicators of underweight children, measles immunization, supervised deliveries, malaria and TB incidence and TB DOTS coverage.

However, despite the above positive conclusions, the assessment observed that the Zambian HMIS still has a number of weaknesses including: the lack of indicators to monitor all MDGs; poor integration of vertical programmes and administrative information into the routine HMIS; the quality of data is not checked and the system of vital registration is weak; most staff are not adequately trained in HMIS procedures and there is not much faith in the results coming out of the HMIS.

The European Union has committed significant financial and technical support to strengthen HMIS and ensure that it operates smoothly, by implementing the following strategies.

9.3.2 Strategies

1. Strengthen the HMIS capacity to monitor health sector performance in Zambia, particularly at district level, through intensive skills development, upgrading of manuals and study of best practice sites;
2. Return to the 1996 HMIS principles of decentralisation, action oriented, responsive and transparent HMIS, and introduction of the information pyramid;
3. ICT strengthening, through making the database more flexible and strengthening of decentralized information centres that are linked by internet to a central data warehouse;
4. Effective use of information through integration of vertical systems, with improved central coordination between stakeholders and sectors so that the information from HMIS is used to assess out-put-oriented performance;
5. Improved action research capacity to improve feedback and dissemination and reduce overlap and duplication; and
6. HMIS staff retention, particularly district information officers, by improving skills and status and ensuring sustainability of systems, procedures and staff.

9.3.3 Expected Outputs/Key Indicators

1. Improved quality and timeliness of data / information generated by HMIS;
2. Capacity for use of information in decision-making significantly developed at all levels by 2007;
3. Reliability of Data / information further enhanced;
4. Health information sharing and regular data dissemination at all levels in the health system, by 2007; and
5. HMIS personnel at different levels of the health system retained and trained

9.4 Financial and Administration Management System (FAMS)

9.4.1 Situation Analysis

Apart from the routine HMIS, a number of other administrative and management systems have been established at all the levels of health service delivery, including the Financial and Administrative Management System (FAMS). The purpose of FAMS is to provide a simple, comprehensive, accountable and transparent financial and administration management system at all levels of the health delivery system, that adequately meet the financial management and reporting requirements of all stakeholders.

FAMS was introduced at district level in 1991, however, computerized accounting procedures using Navision Financial were only introduced by CBoH in 1997. Currently, all districts are using manual FAMS, with a cash book, a system of ledgers, forms and procedures as provided for in the Financial Management Procedures Manual. FAMS is not a complicated system, is adequately documented and fully complies with the local and internationally accepted accounting principles and. There are plans to introduce computerized FAMS in all provinces and districts.

Even though a plan to expand the Navision-based FAMS to all provinces and districts has been approved, a number of issued require careful consideration. These include: it should be considered as to how far down Navision should be used and what are the practical implications of introducing it at such levels; FAMS based on Navision Accounting Software is considered expensive and it is imperative to do a cost benefit analysis of scaling it out to the various levels of health service delivery; technical skills to maintain Navision software are not available within the Ministry and consideration should be made on how this would be handled; and the need for intensive training and capacity building at all levels to support FAMS implementation. The other major challenges are that CBoH and MOH headquarters will soon merge into one central body. This will entail merging the accounting departments currently und CBoH and MOH. While the computerised FAMS has been implemented at CBoH, it is not the case at MOH, where most of the accounting staff do not have the necessary knowledge and experience in FAMS and would require significant training and capacity building. Further, FAMS and other administrative and management systems, are not integrated with HMIS. The implication of this state of affairs is that the indicators from these systems are not consolidated and therefore ratios combining HMIS and FAMS data are provided by the systems.

9.4.2 Strategies

1. Scale-up implementation of FAMS to all levels of the health delivery system, provincial, hospital and district levels. This process should be based on a careful analysis of technical and financial implications;
2. Ensure compatibility of FAMS modules at all levels;
3. Integrate HMIS, FAMS and other information systems into a single reporting system at all levels;
4. Strengthen performance and financial audits at all levels;
5. Integrate FAMS indicators in performance audits, supportive supervision and accreditation activities at provincial, hospital and district levels; and
6. Strengthen coordination and management of FAMS.

9.4.3 Expected Outputs/Key Indicators

1. FAMS implemented and strengthened at all levels by end 2007;
2. Compatibility of FAMS modules at all levels achieved by 2007;
3. Integration of FAMS and HMIS attained by 2007;
4. Financial and performance audit systems strengthened at all levels;
5. FAMS indicators incorporated in performance audits and accreditation process; and
6. Number of staff trained in FAMS increased.

9.5 Procurement Management System

9.5.1 Situation Analysis

The purpose of the procurement management system is to provide well-coordinated, efficient, cost-effective, transparent and accountable procurement support services to all levels of service delivery. Prior to 2000, the MOH Procurement Unit undertook all central level procurement functions. In 2001, following the establishment of the CBoH procurement unit, there was a split in procurement functions between MOH and CBoH.

The Ministry assumed the responsibility of policy formulation and provision of procurement guidelines to all procurement units in the health sector, in accordance with the Zambia National Tender Board (ZNTB) Act, while the CBoH procurement unit assumed responsibility for procurement of all public health sector goods financed by GRZ and the Co-operating Partners.

The CBoH procurement unit has acquired significant experience in managing procurements financed by GRZ and Co-operating Partners. This has been demonstrated by the high value procurements successfully completed by the unit, such as the procurement of motor vehicles for all district health boards and the procurement of ARVs and drug kits.

In order to improve planning and transparency in procurement management, in 2004 the Ministry started preparing procurement plans, in consultation and agreement with the Co-operating Partners. A draft procurement procedures manual was developed although it is yet to be operationalised. It has also been recommended that MOH should collaborate with ZNTB to prepare a more comprehensive manual, which would include procurement planning, contract management and a manual for a procurement filing system and checklist. To facilitate the co-ordination of all procurement efforts between the Co-operating Partners and the Ministry, in 2002, a Procurement Technical Working Group was established. The Procurement Technical Working Group also acts as an overseer of all procurement processes undertaken in the health sector.

Essential drugs and medical supplies constitute the bulk of the procurements undertaken using Co-operating Partners and GRZ resources. In order to efficiently procure drugs and medical supplies, a decision was made to pool the Ministry of Health and Co-operating Partners resources into a Drug Supply Fund (DSF), which would facilitate undertaking of bulk buying of drugs. Bulk buying of drugs would attract large discounts in prices and could lead to price stability, especially where flexible long-term framework contracts are used. Conditional to the establishment of the DSF was the undertaking of an external assessment of the Central Level Procurement Unit. Results of this external assessment, which was carried out in December 2004 by the World Bank, indicated an overall Average Risk rating for the Ministry.

It was observed that substantial risks remained as a result of poor selection and quantification of requirements, inadequate procurement planning and monitoring, poor procurement records management, insufficient contract management and because of the Ministry's previous record of not implementing agreed actions.

The assessment report further recommended actions to be undertaken by the Ministry in order to strengthen the Central Level Procurement Unit which included the contracting of a long term Technical Assistant to build capacity in the identified weaker areas, preparation of a procurement plan for a minimum of 24 month period, establishing record management systems, launching the prequalification exercise for the procurement of a 2 year drug supply (with staggered) delivery, modifying the system for registering suppliers and service providers and establishing a system for procurement monitoring. It is important for the Ministry to aggressively implement this recommendation during the duration of this strategic plan.

9.5.2 Strategies

1. Develop and maintain a well coordinated, reliable and transparent procurement and supply system that is acceptable to all stakeholders;
2. Develop and enforce procurement management regulations and guidelines at all levels, based on the Zambia National Tender Board and FAMS regulations and guidelines;
3. Develop and implement a long-term strategy for Medical Stores Limited, with performance indicators and clear targets;
4. Provide training and capacity building in procurement and supplies management at all levels;
5. Ensure that the Drug Supply Budget Line (DSBL) is established for funding drugs and medical supplies; and
6. Facilitate the integration of procurement functions in MOH and CBoH into one central level procurement unit.

9.5.3 Expected Outputs/Key Indicators

1. A well-coordinated procurement system established by end of 2006;
2. Procurement regulations and guidelines developed for all levels by 2007;
3. Long-term strategy for Medical Stores Limited developed by end 2006;
4. Procurement and supplies staff training programme commenced by 2006;
5. DSBL established and operational by 2006; and
6. MOH and CBoH procurement units fully integrated by end of 2006.

9.6 Health Systems Research

9.6.1 Situational Analysis

The current MoH structure does not provide for a Health Research Unit. Reliable National Research Priorities and recommendations for action must emerge from the Provincial and District level to be effective. Currently, the capacity at both Province and District levels to analyze, interpret and utilize data is limited. Integration and institutionalisation of research as an integral routine component of the health policy development and program implementation process is of critical importance.

Institutionalisation of the use of research outcomes for health planning, policy and decision making and program implementation at program level, as well as, the Central and Provincial levels of MoH is currently unsatisfactory. Mobilization of resources for conducting relevant health research is therefore important. The development of effective mechanisms and systems in setting out MoH and national program health research priorities is almost non-existent. Therefore, it is important to develop and strengthen existing health research systems at all levels that define priorities for health research, influence national, regional and global health agendas and lobby for a more equitable allocation of resources.

9.6.2 Strategies

The proposed research strategies involve building capacities, infrastructures, competences in the relevant MoH Directorates, participation at research conferences, undertaking research and tackling policy issues and will include:

1. Strengthening of the research capacity in MoH and mandate for National Health Research Advisory Committee in an effort to institutionalise health research at the various levels of health care;
2. Provision of assistance and building on existing structures, efforts, research networks, and experiences to link research to policies for improving the quality and extending the coverage of Malaria, MCH, RH and HIV/AIDS services. Facilitate dissemination of research results to all relevant stakeholders, including PHOs in order to maximize utilization of research outcomes; and
3. Strengthening capacity to conduct applied health research in the academia, and other statutory health bodies.

9.6.3 Expected Outputs / Key Indicators

1. Finalisation of the National Health Research Policy for framework implementation;
2. Implementation of the National Health Research Policy monitored;
3. Link between health research, health policy and programmes strengthened;
4. National Health Research Agenda priorities identified and regularly updated; and
5. Research institutionalised at all levels of health care.

10 HEALTH SYSTEMS GOVERNANCE

10.1.1 Policy and Legislation

10.1.1.1 Situation Analysis

The National Health Policies and Strategies of 1992 provide the overall policy framework within which health services are provided. They further articulate areas where new policies and legislation should be developed and/or revised in order to create an enabling policy and legal framework for health reforms implementation. After more than ten years of implementing the National Health Policies and Strategies, there still remain gaps in the policy and legislative framework. Out of the total of 14 pieces of legislation that were set for review during the period 2001-05, only the Pharmacy Legislation has been reviewed and approved at Cabinet level. During the same period, about ten areas were identified as requiring new legislation. However, up to 2004 the Ministry only managed to promulgate the National HIV/AIDS/STI/TB Act of 2002. The challenge is for the Ministry to enhance capacities for policy analysis and formulation, as well as develop appropriate mechanisms to support policy implementation.

10.1.1.2 Objective

To provide a comprehensive policy and legal framework for effective coordination, implementation and monitoring of health services.

10.1.1.3 Strategies

1. Review and harmonize the existing policies and legislation and, where gaps exist, formulate new legislation in order to provide a legal framework that effectively supports the on-going health sector reforms;
2. Develop policies aimed at promoting interventions that are cost-effective, pro-poor and address key health priorities;
3. Disseminate all legislation and policies applicable to the health sector to all levels of the health service delivery system, community representatives and other stakeholders;
4. Develop a system for coordinating and monitoring implementation of health sector policies and legislation; and
5. Strengthen capacity at MOH for health sector policy formulation, analysis and advocacy in order to ensure that better policies that address the health needs of the Zambian population are developed.

10.1.1.4 Expected Outputs

1. Existing policies and legislation reviewed and harmonized and new ones developed by 2007;
2. Appropriate new policies and legislation developed and updated on a continuous basis;
3. Existing health sector policies and legislation disseminated to all levels of health service delivery on a continuous basis;
4. Mechanisms for coordination and monitoring enforcement of policies and legislation developed by 2007; and
5. Capacity in policy formulation, analysis and advocacy strengthened at MOH through staffing, technical support and training.

10.1.1.5 Key Indicators

1. Checklist on status of the existing/required policies and legislation produced during 2006;
2. Number of policies and legislation reviewed or/and developed against the checklist;
3. Number of policies legislation disseminated and number of centres/institutions reached;
4. Guidelines for monitoring and evaluation of policy and legal implementation; and
5. Staffing levels and number of people who received appropriate training in policy formulation and analysis.

10.1.2 Organisation and Management

10.1.2.1 Situation Analysis

The main feature of the organisational and institutional restructuring implemented under the health sector reform programme was the decentralisation of health service delivery, through devolution of key management responsibilities and resources to district level. In this respect, two parallel, but complimentary organisational structures were introduced, namely, popular structures for public involvement and participation in the decision-making process (the District and Hospital Boards, and the Central Board of Health) and the technical and management structures (District and Hospital Management Teams), designed to ensure that health services are implemented and managed in a manner that is technically sound and conform with best practices. However, the Government has since decided to abolish CBoH and has repealed the National Health Services Act of 1995 to pave way for these changes. By so doing, the Government is confident that the problem of duplication of duties between MOH and CBoH, as well as the bloated central level structures, would be resolved. The decision to repeal the National Health services Act has also affected the hospital and district health management boards which derived their mandate from the Act. Following this decision, the health sector is already undergoing a comprehensive restructuring process through which the functions of MOH and CBoH will be merged and the management and control of all public health facilities and services will directly fall under MOH. In order to ensure continued popular participation, the hospital and district management boards will be replaced by advisory councils.

The Health Sector Reforms introduced in 1992 tended to overlook levels 2 and 3 hospitals. Policy makers and CPs exclusively focused on primary health care despite the knowledge that healthcare was a continuum of care ranging from primary health to tertiary care. In 1999, there was an attempt to bring the hospitals on board the health reform agenda. A Hospital Sector Reform Steering Committee was established to spearhead hospital sector reforms. The focus of the reforms was on formulation of a hospital policy, systems development in the hospitals such as HMIS and FAMS, development of the Basic Package of Care, quality assurance, leadership and management, and overall improvement of the quality of patient care.

In 2003, as part of expanding the district basket funding, a hospital basket was established with plans to later include training institutions. During the same year, a Capacity Assessment Mission (CAMS) was conducted on hospitals, in which management systems and capacities were assessed. Following the CAMS assessments, the intention was to then provide support to hospitals in strengthening and developing appropriate systems and capacities to qualify for basket funding. Unfortunately, the CAMS report for hospitals was never finalised, capacity support was not given, and basket funding to hospitals has not been increased above the initial amount agreed.

MOH has since realised its capacity limitations to take this forward and has identified the need to develop Technical Advisory support to hospitals and training institutions with the help of outside expertise. This programme of would aim to increase efficiency and effectiveness of the hospitals and unlock additional basket funding.

The coming of the National Decentralisation Policy has brought about new challenges to the organization and management of the sector. Under the National Decentralisation Policy, all the ministries will be expected to gradually, over a period of 10 years commencing in 2003, devolve their management responsibilities to the Local Authorities. Considering that MOH has over the years made significant progress in the decentralization of health service delivery, there is a danger that if not properly implemented, the Ministry could lose most of the gains achieved in this area. The challenge for the Ministry is to proactively participate in the National Decentralisation process in order to ensure that structures and systems created under the health reforms are harmonised with the scope and direction of National Decentralisation Policy, particularly at the district level and provincial levels.

Establishment of effective partnerships in the delivery of health services is one of the key principles of the Zambian health reforms. The vision has been to create strong, sustainable partnerships among all key stakeholders involved in health service delivery in Zambia. Accordingly, partnerships have been established in each district at all levels of service delivery. These partnerships allow key stakeholders to work together to analyse health problems in their respective areas, identify possible solutions, develop joint work plans, implement and evaluate progress of their programmes.

The National Health Policies and Strategies also articulated policies aimed at enhancing the public private partnerships in health service delivery. Except for the Churches Health Association of Zambia (CHAZ), private sector participation in health service delivery in Zambia has however been modest. The main contributing factor is that currently there are no incentives from MOH, aimed at attracting the private sector to participate in the implementation of the Basic Health Care Package (BHCP) through the public health care delivery system. Many reasons have been given for this state of affairs, including: a) lack of knowledge about the private sector by policy makers in the Ministry; b) limited dialogue between the public and private stakeholders; c) lack of institutionalized policy instruments from MOH for interacting with the private sector especially in financing, regulation and dissemination of information. There is also need for the Ministry to strengthen accreditation of private sector health providers as another way of increasing private sector participation in health service delivery. However, the existing policy and regulatory environment is weak. The challenge for the Ministry is to harness the Public/Private sector partnerships in the delivery of public health services, through increased dialogue, development and enforcement of appropriate regulatory framework, improved coordination, monitoring and evaluation.

10.1.2.2 Objective

To ensure efficient and effective organization and management of health service delivery at all levels, providing clearly defined role and responsibilities and appropriate authority to contribute to the improved delivery of cost-effective and quality health services.

10.1.2.3 Strategies

1. Reorganise and restructure the MOH/Health sector, in order to facilitate the establishment of a health system that is equitable, efficient, well integrated, cohesive and accountable to all stakeholders, in line with the National Decentralisation Policy;
2. Strengthen and harmonize the health sector decentralisation system in line with the new National Decentralisation Policy of 2003 and its implementation framework;
3. Clarify roles, responsibilities and organisational linkages between the popular structures and technical structures at different levels of health service delivery in the light of the new National Decentralisation Policy;
4. Strengthen institutional capacity at all levels, in particular at national and provincial health office levels, so as to improve organisation and management of health services;
5. Promote and strengthen partnerships between health centre committees and various communities/villages and resident NGOs within the catchment areas, aiming at identifying health problems and finding solutions, developing community-based work plans and sharing implementation of the planned activities;
6. Develop and implement a system for collecting accurate information about the capabilities of private health care providers and their activities, in order to assess and channel their contribution to national health priorities;
7. Develop and implement mechanisms for on going communication between government officials involved in policy design and implementation and private health care providers so as to develop better policies, taking into account the likely perspective and reactions;
8. Develop systems for enhancing the contribution of existing private providers by enhancing the effectiveness of health service regulation including price regulation; capacity regulation (i.e. volume and distribution of services); market entry and level of service; quality of care; health audits; practice guidelines and clinical protocols;
9. Promote multi-sectoral collaboration in addressing public health priorities;
10. Intensify the pace of the hospital reforms;
11. Strengthen and harmonize operations of statutory boards/bodies, service units and other institutions under the Ministry of Health; and
12. Strengthen health services contracting and commissioning in the light of the new Decentralisation Policy, in order to achieve equitable, efficient and cost-effective service delivery in national priority areas.

10.1.2.4 Expected Outputs/Key Indicators

1. Restructuring of the sector completed by 2006;
2. Capacity strengthening needs identified by 2007 and thereafter addressed;
3. Guidelines on the harmonization of the implementation of the NHSP and new Decentralisation Policy developed in 2006;
4. Hospital reforms reinvigorated and commencement of implementation by mid 2006;
5. Capacity building in hospitals completed by 2011
6. Guidelines for coordination/monitoring/evaluation of Statutory Boards developed by 2007;
7. Guidelines for coordination, monitoring and evaluation of the private sector involved in delivering the BHCP through the public health sector developed by 2007;
8. Existing mechanisms for health services commissioning in a decentralised environment replicated to Local Authorities; and
9. A framework for regulating the private sector involved in delivering the BHCP through the public health system developed and implemented by 2011.

10.1.3 Gender and Health

10.1.3.1 Situation Analysis

On gender mainstreaming, Zambia still shows some major gender disparities in health outcomes, particularly in terms of morbidity and mortality. Overall, the issue of gender differences in access to healthcare and the impact on health outcomes does not seem to have received the attention it deserves. Currently, the participation of men in reproductive and family health is still relatively low, gender policies in the NHSP are not transformed into concrete action plans, there is no collection of gender-disaggregated data within the HMIS, there are fewer women in management positions at all levels of the public health system, and the understanding of gender mainstreaming is still limited.

The challenge for the Ministry is to: develop a specific action plan for accelerated gender mainstreaming; address gender balancing in recruitment and human resource development activities; adopt a multi-sectoral approach to strategically mainstream gender; and establish clear monitoring and evaluation indicators, which can show progress on gender mainstreaming.

10.1.3.2 Objective

To ensure that the different situations and requirements of men and women are catered for, both in service delivery and human resource management of health staff so as to enable gender sensitivity and equity in delivery of and access to health services. Also, to accord high priority to meeting the special reproductive health requirements of women.

10.1.3.3 Strategies

1. In line with the National Gender Policy, develop guidelines for mainstreaming gender issues in health sector planning;
2. Development of methodologies, tools and training activities to assist integration of gender concerns into delivery of the health care package at all levels;
3. Carry out gender training of health staff using the new methodologies and monitor their performance;
4. Establish a data bank and carry out reviews to provide gender relevant information for planning, decision-making and balancing of sex representations in the health boards;
5. Selection and train gender focal persons in the DHBs;
6. Review sex balance of the composition of DHB and take steps to redress imbalance, if any; and
7. Make all currently female focused health services including participation in family health, more make (user) friendly.

10.1.3.4 Expected Outputs/Key Indicators

1. Guidelines for mainstreaming gender issues in planning developed and used in training;
2. Methodologies, tools and training activities development for enhanced gender relevant delivery of health services;
3. Health staff practicing the gender relevant skills acquired;
4. Desegregated gender data available for planning and gender perspective action plans;
5. Review of sex balance composition of the health boards completed;

6. Gender focal persons selected by DHBs and trained in all districts;
7. Increased number of women involved in DHBs; and
8. Increased male participation in family health.

10.1.4 Sector Wide Approach (SWAp)

10.1.4.1 Situation Analysis

In the context of the Zambia Health Reforms, the Sector Wide Approach (SWAp) is a long-term commitment to developing the capacity to manage the health sector, which recognizes the mandates and agenda on all parties involved. It is an agreement to a minimum sector wide programme of action with clearly defined roles, including joint planning, monitoring and implementation by Government and the CPs.

The main achievement of the SWAp component of health reforms has been the pooling of MOH and donor funds for the creation of the district basket of funds. This has paved the way for harnessing internal and external resources and targeting them towards commonly shared priority interventions at the district level, resulting in improved equity and efficiency. Basket funding has also increased over the years, which has resulted in the percentage of district allocations increasing in absolute terms. SWAP management tools and structures have been developed and strengthened. This has resulted in improved policy dialogue between the Ministry and CPs.

In 2001 a policy decision was made to expand the district basket into a Health Sector Basket (Health Services Fund), which would include capital, human resources, drugs and laboratory supplies, and service delivery recurrent support to all levels of the health system. The Ministry's vision is to attain a full SWAp by end of 2005, which would entail the Ministry and CPs shifting from district basket funding to direct sector budget support, adopting common planning, monitoring and evaluation systems for managing the sector, discontinuing discreet project support, and a shift from a culture of dominance to that of partnership, mutual trust and interest. Implementation of this policy commenced in 2002, however, with the exception of the Hospital Basket, none of the above funds have been operationalised due to the following reasons:

- The decision to expand the basket was not accompanied with an increase in the resources;
- Donors have kept on changing conditionalities for expanding the basket;
- Systems, which were agreed upon to trigger the flow of funds, were not established in the proposed beneficiary institutions under the expanded basket;
- There is also a problem of capacity to manage the process at the center;
- The process of nurturing of trust between the Ministry and the CPs has been slow;
- The unavailability of a comprehensive and generally accepted resource allocation criteria that covers all levels and budget lines;
- Some CPs still prefer direct project funding; and
- Some donors are still not in support of the concept, for fear that there would be more emphasis on secondary and tertiary health care at the expense of primary health care.

Integration of health programmes is one of the cornerstones of health reforms and significant efforts have been made in this area. However, some programmes have continued to run vertical activities e.g. TB, HIV/AIDS and EPI, which has resulted in duplication of efforts and wastage of resources.

In order to improve coordination and rational use of resources, the Ministry should integrate efforts and support in implementing health service programmes. The Ministry should also continue its efforts to strengthen the SWAp Secretariat and to expand the basket funding to other levels of the system.

10.1.4.2 Objective

To strengthen SWAP management and coordinating mechanisms in order to improve health sector performance.

10.1.4.3 Strategies

1. Expand the existing common basket funding mechanism to include all levels of health service delivery, training institutions and statutory boards;
2. develop and transform the common basket funding into the Health Sector Budget Support mechanism;
3. Review, develop and harmonise systems and procedures for the management of the common basket funds;
4. Develop a common and objective framework for the release of funds by the donors, based on agreed health sector performance benchmarks;
5. Review and strengthen the resource allocation criteria under SWAp;
6. Advocate for more funding to SWAp from the Government and CPs;
7. Review and strengthen financial reporting, transparency, accountability, monitoring and evaluation of SWAp programmes and activities; and
8. Strengthen the SWAp Secretariat, through capacity building and training.

10.1.4.4 Expected Outputs/Key Indicators

1. Existing common basket funding mechanism expanded to include all levels of health service delivery, training institutions and statutory boards, by 2007;
2. Common basket funding transformed into the Health Sector Budget Support mechanism;
3. Systems and procedures for the management of the common basket funds harmonized by end 2006;
4. A common and objective framework for the release of funds by the donors, based on agreed health sector performance benchmarks, developed by end 2006;
5. Existing resource allocation criteria under SWAp, reviewed and strengthened by 2007;
6. Financial reporting, monitoring and evaluation of SWAp programmes improved; and
7. SWAp Secretariat staff, through capacity building and training.

11 HEALTHCARE FINANCING

11.1 The Basic Health Care Package

11.1.1 Situation Analysis

Introduction of a basic package of essential healthcare services is a central principle of the health reforms. The Government is committed to providing basic health care to all the Zambians, through the implementation of the BHCP. The elements of the Basic Health Care Package (BHCP) are selected on the basis of an epidemiological analysis of those diseases and conditions that cause the highest burden of disease and death. Currently, eleven priority areas for health services have been identified for inclusion into the BHCP, including: promotion of child health; improving nutrition; environmental health; control and management of communicable diseases not addressed in priority areas 1-4, including malaria, tuberculosis, STIs, and HIV/AIDS; mental health; control and management of non-communicable diseases; epidemic and disaster prevention, preparedness and response; school health; Oral health; and other essential clinical care. These essential healthcare services are offered at five standard types of health facilities: Health Post; Health Centre; and the 1st, 2nd and 3rd Level Referral Hospitals. BHCP packages for the secondary and tertiary levels of the hospitals have already been defined, but not yet finalized.

The challenge is that though the BHCP has been defined and implemented at certain levels, little progress has been made in using the packages for actual decision making in the allocation of resources to priority areas. Further, work is needed at the policy and planning level to refine the packages and use them in the manner for which they were intended.

11.1.2 Objective

To provide efficient and cost-effective quality basic health care services for common illnesses as close to the family as possible, through the implementation of a Basic Health Care Package concept at all levels of health care delivery.

11.1.3 Strategies

1. Finalise and implement the BHCP at all levels of the health delivery system;
2. Develop the capacity of health providers through pre-service and in-service training of health workers in essential clinical services in order to provide quality essential clinical care in accordance with the established guidelines;
3. Develop and distribute standards, guidelines, logistics and supplies for implementation and coordination of essential clinical services; and
4. To strengthen the referral system in order to support the implementation of the BHCP.

11.1.4 Expected Outputs

1. BHCP finalised, costed and approved for all levels of health care by 2009;
2. Logistics to support the implementation of the BHCP strengthened by 2007;
3. Treatment guidelines for priority diseases developed and implemented by 2008; and
4. Accessibility of the population to appropriate essential clinical care increased.

11.1.5 Key Indicators

1. Number of health facilities providing care according to BHCP guidelines;
2. Number of pre-service training institutions that have incorporated the BHCP concept in their curriculum; and
3. Morbidity and mortality rates for the top 10 diseases.

11.2 Resource Mobilisation

11.2.1 Situation Analysis

In Zambia, the Basic Health Care Package (BHCP) for the first and second levels of care is estimated to cost around US$12.00 per capita, out of which US$10.5 is intended to be spent at the district level and US$1.5 at the secondary level. Out of the total cost for the first level health services,

38% percent is assumed to be spent at the health centre level for curative care, 36% at the district hospital for curative care, 25% for preventive programs and about 1% percent is estimated to cover operating costs at the District Health Office. If an estimate of US$2.0 is used for the cost of tertiary care, the total per capita for delivering the BHCP would be US$14.0. On this basis, Zambia would require US$14.0 x 11.6 million population = US$162.4 million per year to offer quality basic health services. It should be noted that this cost of BHCP excludes the following

- The cost of sending patients for specialized treatment abroad;
- The Cost of ART and extensive use of nevirapine to control mother-to-child transmission of HIV/AIDS, estimated to cost US$36 Million per year;
- The cost implications of the recent policy change to adopt Coartem as the first line of treatment for malaria, estimated to cost US$ 5 Million per year;
- The re-introduction of residual indoor spraying for malaria;
- The introduction of DPT+ Hib vaccine in January 2004, with a view to switching to pentavalent vaccine in 2005, estimated to cost around US$6 Million per year; and
- The cost of the human resource complement needed to carry out the approved Global Fund proposals, PEPFAR and related activities.

If these costs are factored in, the total resource requirements would reach approximately US$209.0 million or in per-capita terms US$18.0. In order to view the Zambian BHCP cost estimates in perspective, it would be useful to compare it with similar per-capita costing standards. The Commission on Macroeconomics and Health estimates that a typical low income country needs US$33.0 per capita to offer quality health services to its citizens. The World Bank's "Better Health for Africa," set a figure of US$12 per capita for services excluding tertiary care. In the case of Malawi, the essential health package is costed at US$12.60 per capita, excluding tertiary care, for the terminal year of the Program of Work.

The financing of health care has over the years ranged between 5.4% – 6.6% of the Gross Domestic Product (GDP). Total health care expenditure has averaged US$115 million per year during the period from 2000 to 2005, from both Government and CPs. Donor funds account for over 50 percent of health sector funds. As a percentage of the National budget, the health sector currently receive 10.5% of the central government discretionary budget.

Table 4.1: Overall Health Sector Resource Envelope, 2001-2005 (US$)

Source	2001	2002	2003	2004	2005
GRZ	63,034,389	65,094,432	62,673,381	92,012,654	109,194,237
Co-operating Partners	94,097,998	100,596,205	123,322,621	143,221,095	149,119,568
Households+Other	52,377,462	55,230,212	61,998,667	78,411,250	86,104,602
Total Health Expenditure(THE)	209,509,849	220,920,849	247,994,669	313,644,999	344,418,407
Per Capita Health Expenditure	22	22	24	23	21
Total Health Expenditure as % GDP	7	6	6	6	6
Change in THE over previous year (%)		5	12	26	10
CP/(CP+GRZ) (%)	60	61	66	61	58

Table 4.2: Public Health Sector Resource Envelope, 2001-2005 (US$)

Source	2001	2002	2003	2004	2005
GRZ	63,034,389	65,094,432	62,673,381	92,012,654	109,194,237
Co-operating Partners	40,957,354	42,690,917	52,048,120	68,350,550	110,032,246
Households+Other	43,329,893	44,910,562	47,800,626	59,728,501	95,186,070
Total Public Health Expenditure(THE)	**147,321,636**	**152,695,911**	**162,522,127**	**220,091,705**	**314,412,553**
Per Capita Health Expenditure	10.1	10.17	10.55	10.23	10.75
GRZ Budget as % GDP	1.70	1.60	1.90	1.69	1.91
PHE as % GRZ Budget	13.1	10	10	11.7	11.9
Change in PHE over previous year (%)		3.65	6.44	24.95	59.36
CP/(CP+GRZ) (%)	39.39	39.61	45.37	42.62	50.19

In Zambia, the main sources of financing public healthcare services include:

1. Allocations from the Central Government;
2. Support from International Cooperating Partners (CPs);
3. The general public, through user fees and insurance schemes;
4. Contributions from employers in form of health insurance payments or direct support to their employees; and
5. Other miscellaneous receipts, including donations in kind.

In 2003, the Government started receiving significant financial support from the Global Fund for the Fight Against HIV/AIDS (Global Fund). In this respect, a total of US$1.6 million was received in 2004 for various anti-HIV/AIDS programmes. Other significant contributions to the fight against HIV/AIDS are being received from the World Bank, under the Zambia National Response to AIDS (ZANARA) Project, and the USA President's Emergency Plan for AIDS Relief in Africa and the Caribbean (PEPFAR). It is important to note here that this international financial and technical support is being channeled through the Government, religious based institutions, non-governmental organizations and other projects at various levels of intervention.

11.2.2 Objective

To mobilise resources through efficient and sustainable means, and to ensure efficient use of those resources in order to promote equity of access to cost effective, quality health care as close to the family as possible.

11.2.2.1 Strategies

1. Develop and implement an appropriate Healthcare Financing Policy;
2. Develop and implement appropriate healthcare financing operational guidelines;
3. Broaden the resource base through the implementation of various financing options, including social insurance, community financing schemes, and earmarked taxes on alcohol and cigarettes;
4. Improve the targeting of exemptions on cost sharing;
5. Expand the basket funding mechanism to cover other levels of healthcare and statutory institutions;
6. Strengthen Public/Private Sector Partnerships in healthcare financing;
7. Further develop and use the National Health Accounts as a tool for planning and resource allocations; and
8. Harmonize and strengthen the links between the district and hospital budgets on one hand and the sector budget and national strategic plan on the other hand.

11.2.3 Expected Outputs/Key Indicators

2. Healthcare Financing Policy approved and implemented by end 2006;
3. Various healthcare financing options implemented by 2008;
4. Exemption mechanisms strengthened;
5. Basket funding expanded to include other levels by end 2006;
6. Public/Private Sector partnerships strengthened; and
7. A system of National Health Accounts Institutionalised and operationalised.

11.3 Resource Allocation

11.3.1 Situation Analysis

The major challenge is how to manage limited health resources in an equitable and effective manner so as to ensure the delivery of quality health services. In this respect resource allocation criteria have been developed. In 1994, district resource allocation criteria applied district population multiplied by the agreed per capita, weighted for population density and presence of a second or third level hospital. In 1995, more parameters were added to account for an index of fuel prices as a proxy for cost differentials. Other parameters included proneness to cholera or dysentery and proximity to a bank and a service station. In 2004, the resource allocation criteria for the districts was further revised to include the Material Deprivation Index to take into account the poverty issues in resource allocation.

While the agreed criteria were applied to the portion of the budget earmarked for districts, the rest of the budget allocation process was not clear with regard to determining appropriate proportions of funding that should go to districts in relation to other levels of the health care system. The allocation criteria has been criticised for not being flexible enough to address the utilisation of inputs such as human resources, number of health facilities and disease burden. Further, there are problems in "small districts" where administrative costs are high relative to the population.

11.3.2 Objective

To allocate resources equitably and efficiently and ensure the effective utilization of those resources for the provision of healthcare services.

11.3.3 Strategies

1. Strengthen existing resource allocation criteria so as to take better cognisance of different health service needs of various population groups and geographical location, including the need for appropriate incentives for healthcare providers;
2. Prioritise primary healthcare in the resource allocation process;
3. Promote the retention and use of locally generated resources;
4. Develop mechanisms for enhancing co-ordination of domestic and external health resources and commodities with a view to promoting higher efficiency levels;
5. Allocate more resources to the development of specialized health facilities as a way of
6. reducing expenditure on treatment abroad; and
7. Develop new tools for costing and budgeting in order to improve allocation and utilization of resources in second and third level hospitals.

11.3.4 Expected Outputs

1. Resource allocation criteria for equitable distribution of resources to both primary health care and hospitals revised by 2006;
2. Guidelines on the use of locally generated resources developed and disseminated by end 2007;
3. Mechanisms for enhancing coordination of local and external resources developed by end of 2007; and
4. New tools for costing and budgeting developed for second and third level hospitals by end 2007.

12 COSTING AND FINANCING OF THE STRATEGIC PLAN

The costing and financing part of the NHSP will be presented separately. The costing will be done in line with the NDP and MTEF guidelines in respect of the format and approach. Activity Based Budgeting (ABB) is the preferred method of costing the NHSP.

Financing of the plan will be based on the commitments made by both the Government and the CPs, projected inflows from other sources including the Global Fund, PEPFAR, World Bank/ZANARA project and direct project funding from various donors, and income generating opportunities. A Memorandum of Understanding between the MOH and the CPs covering the duration of this plan is being drafted, which will form the basis for future financial and technical support from the CPs.

The costing and financing plan covers a period of 6 years starting with 2006 to 2011, which is in line with the NDP duration and allows for implementation through two MTEF plans, three year rolling plans.

13 IMPLEMENTATION, MONITORING AND EVALUATION OF THE NHSP

13.1 Implementation

13.1.1 Implementation Timeframe

The NHSP covers duration of six years, commencing 1 January 2006 to 31 December 2011. This timeframe is in line with the duration of the National Development Plan (NDP).

13.1.2 Link to National Development Plan and MTEF

The NHSP is closely linked to the National Development Plan 2006-11 (NDP). The NDP presents a summarised version of national priorities, strategies and implementation framework for the whole national economy. In this respect, the NDP chapter on health presents a summary of the health sector strategy. On the other hand, the NHSP is an expanded version of the NDP chapter on health, and presents a more detailed analysis of the existing situation, sector priorities, proposed strategies and expected outputs, and will serve as an important tool for implementing the NDP. The NHSP is also linked to the Medium-Term Expenditure Framework (MTEF). MTEF plans are three-year rolling plans based on the NHSP priorities and strategies, and are considered as important tools for implementing the NHSP.

The NHSP will be operationalised through a series of MTEF and annual action plans and budgets. MTEF plans will translate the NHSP priorities and strategies into costed activities for implementation over three-year durations. The NHSP will provide the framework and requisite parameters for the development of MTEF and annual action plans for all relevant planning entities at all levels, including the centre, provincial health offices, districts, hospitals and statutory boards under MOH. To this effect, MOH will prepare and disseminate specific guidelines on how to operationalise the NHSP into MTEF and annual action plans.

13.1.3 Decentralisation: Centre –District Linkage

In 2003, the Government launched the National Decentralisation Policy, which aims at providing the citizenry with an opportunity to exercise control over its local affairs and foster development. The National Decentralisation Policy spells out various measures aimed at, among other things, devolving specified functions and authority with matching resources to local authorities at district level. Under this environment, the role of the centre will be to provide policy, strategic guidelines, overall coordination, monitoring and evaluation. Implementation and supervision of the programmes will be through the local authorities.

This policy will implemented gradually over a period of 10 years, starting from the time it was launched in 2003. The full-scale devolution will therefore not be achieved during the 6-year duration of this NHSP. However, MOH will aim at making significant progress towards the implementation of this policy by developing and implementing appropriate measures aimed at empowering the local authorities to start actively participating the planning and management of health services.

These measures will include:

- Ensuring that the process of developing district health plans includes inputs from other non-health sectors such as agriculture, community development, education, child and youth departments at district level, and reviews by the District Health Advisory Committees (DHAC) before submission to the DDCC for approval;
- Build appropriate capacities for local authorities, especially the District Development Coordinating Committees (DDCC) in health planning and programme oversight. In this respect, the procedure for approving district health plans will be changed to allow the DDCC to review and approve these plans at local level, before they are submission to PHOs/MOH; and
- Increasingly integrate district health planning into the overall District Development Plans and long-term vision.

13.1.4 Link to the Sector Wide Approach (SWAp)

The NHSP will have a direct influence on resource requirements, mobilisation and allocation for the health sector. Both resource mobilisation and resource allocation will be directed towards addressing the health sector priority interventions to achieve the vision and goal for the NHSP. Over the past 5 years, the Ministry has made reasonable progress in strengthening the SWAP mechanism as an important tool for mobilizing and allocating funds for the health sector. In this respect, appropriate SWAp management tools and structures have been developed and strengthened, which has improved policy dialogue between the Ministry and the CPs.

With the NHSP, the health sector is moving towards a comprehensive approach to planning and budgeting, financial management and accounting, procurement management, and performance monitoring of the sector, using agreed indicators of progress in meeting agreed goals. Support from CPs may be provided in several ways, but over time it is anticipated that an increasing share of external support would be provided via pooled mechanisms or direct budget support for NHSP programs. The Ministry is committed to further strengthen the SWAp and will encourage all the CPs and other stakeholders supporting the NHSP to channel their financial contributions through the SWAp mechanism. In this respect, all the main stakeholders, including the Government and CPs are required to commit themselves to support this plan. To facilitate this process, the existing Memorandum of Understanding (MoU) between MOH and the CPs will have to be amended to address the new demands and priorities presented in the NHSP.

In order to ensure that all the relevant areas receive appropriate support through the SWAP, MOH will build on the successes of the existing basket funding arrangement and, together with the CPs, take appropriate measures to expanded the health sector basket, both vertically and horizontally, so as to include all the levels and areas that are critical to efficient and effective health service delivery. However, the sustenance and expansion of the health sector basket is contingent upon MOH meeting a number of benchmarks in respect of levels of income and expenditure, mainstreaming of gender, procurement management, planning and budgeting, monitoring and evaluation, and reporting at all levels. MOH will undertake to fulfil these milestones and take advantage of the good will and support from CPs to mobilise adequate resources for effective implementation of the NHSP.

One of the major challenges to the SWAp approach is the increasing trend for earmarked resources, especially for HIV, TB and malaria, which if not systematically addressed could increase the risk of programme fragmentation and verticalisation. MOH shall therefore engage into dialogue with the CPs to facilitate integration of earmarked vertical funding to support generic systems development and other related service delivery interventions in order to enhance synergies, minimise duplication of efforts and maximise resource utilisation.

The other major challenge is the increasing Government's emphasis on shifting from the SWAp to the Direct Budget Support (DBS) system of financing. It is envisaged that, within the duration of the NHSP, the Government will replace the SWAp with DBS, through the national treasury, as the preferred route for financing the sectors. As the numbers of CPs providing DBS increases, some form of "ring fencing" for the health sector ought to be worked out. In this respect, MOH will engage into constructive dialog with the Ministry of Finance and National Planning (MoFNP) and the relevant CPs supporting the health sector to explore various options and agree on an appropriate way of ensuring that the health sector is not disadvantaged by this change in the method of financing.

13.1.5 Implementation Structures

The NHSP will be implemented and coordinated through the existing health sector organisational and management structures, which will include: the Health Sector Advisory Group (SAG) and MOH Headquarters at national level; Provincial Health Offices (PHOs) at provincial level; District Health Advisory Boards (DHABs) and District Health Management Teams (DHMTs) at district level; Hospital Management Advisory Boards (HMABs) and Hospital Management Teams (HMTs) at hospital level; Statutory Boards, both statutory and service boards; the Churches Health Association of Zambia (CHAZ) and faith based health institutions; private health institutions and hospitals; traditional healers and their registered associations; and non-governmental institutions involved in the health sector. Each of these structures will have specific coordination and implementation functions for the NHSP.

Health Sector Advisory Group (SAG)
The Health Sector Advisory Group (SAG) is a high level forum bringing together the Ministry, CPs and the Civil Society, to provide advice to the Ministry on aspects of health sector governance. As part of its mandate, SAG will be responsible for overall steering of the implementation process. SAG members will meet every after six months (biannually) to review progress, recommend solutions to identified bottlenecks and build consensus on the overall strategic direction of the NHSP.

Ministry of Health
The MOH Headquarters will be responsible for policy and legal framework formulation, strategic decision-making, standards setting and enforcement, and the overall coordination of the implementation of this plan. In this respect, the Directorate of Policy Development will coordinate the policy formulation and legislative changes aimed at e in support of the implementation of the NHSP. The Directorate of Planning and Development will be responsible for the overall functional and technical coordination of the implementation of the NHSP. Explicit activities for plan coordination will therefore be an integral component of the directorate's annual action plan. Concurrent to the policy formulation and coordination function, the other MOH directorates and units will be responsible for the implementation of specific aspects of the NHSP in line with their defined roles and responsibilities.

Statutory Boards
Currently, there are two types of Statutory Boards under the MOH structures, regulatory and service statutory boards. The role of the regulatory statutory boards in the implementation of the NHSP will be to ensure that the relevant laws and regulations are developed and enforced to ensure high standards of ethics and professionalism in the health sector. On the other hand, the role of the service statutory boards in the implementation of the NHSP will be to provide their respective services in support to the core health services. All statutory boards will required to develop and implement three year MTEF plans and annual action plans in respect of their mandates, and in line with the strategic direction provided by the NHSP. MOH and SAG will facilitate the approval, implementation, monitoring and evaluation of the implementation of these plans.

Provincial Health Offices
PHOs will continue serving as intermediaries for operationalisation of the NHSP. They are the MOH's functional link with the lower level structures, training institutions and the civil society. PHOs will specifically ensure that the priorities and scope of the hospital and district MTEF and action plans are informed by the parameters provided through this NHSP. The PHOs will continue to be responsible for coordinating and supervising the implementation of the NHSP and health service delivery in general for their respective territories and provide the necessary technical support to all health service institutions.

Districts and Hospitals
Districts health management structures and hospitals will serve as the major implementing agencies for this plan. This will include public and faith based hospitals and clinics spread all over the country. Harmonization of the district and hospital plans to match the aspirations of the NHSP will therefore be crucial for successful implementation.

Other Implementation Structures
The other structures, including private health institutions, NGOs and traditional health practitioners. These institutions will be expected to significantly contribute to the implementation of this plan by effectively playing there respective roles. MOH is committed to strengthening partnerships with all these stakeholder groups and ensure synergies, through improved coordination and collaboration.

13.1.6 Health Sector Management

Every year, MOH will organise two SAG meetings, which will involve the participation of all NHSP stakeholders, in particular, GRZ, CPs and the civil society. These meetings will be arranged as follows:

- The first SAG annual meeting will be held in March every year and will review the work undertaken during the previous year. Its purpose will be to review overall progress in the sector, reaffirm/revise policies and strategies, agree on priorities, and the overall resource allocation for the next annual action plan. This comprehensive review will be informed by a technical and financial progress report for the previous year, together with the findings of the external Joint Annual Review (JAR) mission, which will be undertaken in January-February each year.

- The second SAG annual meeting will be held in September and will discuss the draft annual action plan and the draft budget for the next financial year. The annual action plan includes the plans of the various sub-committees, the technical working groups and the sector investment plan (SIP). In addition, the financial audit report for the previous year will be presented and discussed during the second SAG meeting.

In November each year, an Annual Consultative Meeting (ACM) will be held at which the Minister of Health and the Heads of Missions of the CPs will discuss the next year action plan and budget and present their financial commitments of support to the health sector. MOH will notify the CPs at least 21 days in advance about date, time, venue and agenda of the ACM and the two SAG meetings.

Apart from the ACM and the two SAG meetings, each year, MOH will organise four quarterly 'mini-SAG meetings', to be chaired by the Director Planning or Director Policy with participation of other arms of Government and stakeholders. MOH will be responsible for setting agendas and for producing and circulating minutes and reports of the mini-SAG meetings. These 'mini-SAG meetings' will review progress and financial reports of previous quarters (4x/yr) and approve financing for the next quarters (2x/yr). The mini-SAG meetings will be informed quarterly on the performance of the sector by three sub-committees (Hospital Sector Reform; Implementation Review and Monitoring and Evaluation). The Implementation Review sub-committee in turn is informed by Technical Working Groups, like TWGs for expenditure and budgeting, procurement, human resources, the capital fund and the service delivery recurrent fund.

In addition to the SAG, ACM and mini-SAG meetings, there are monthly MOH-CP Policy Coordination Meetings (every last Thursday of the month), which are chaired by either the Permanent Secretary of MOH or his/her delegated authority. These monthly policy meetings address general SWAp related issues.

The MOH will be responsible for establishing any additional mechanisms for consultation on a needs basis, e.g. specialist ad hoc technical working groups, and consultation processes with other stakeholders and constituencies, including the civil society, boards, private sector and NGOs.

MOH and CPs will ensure that appraisal, supervision, monitoring, auditing and evaluation missions are carried out jointly to the extent possible. CPs will endeavour to reduce bilateral missions to a minimum, consistent with their own organizations' requirements, and to align any such missions to the extent possible with the Joint Annual Review (JAR) mission.

Finally, the MOH will be responsible for ensuring relevant and appropriate inter-ministerial coordination in health sector policy dialogue and service delivery, including participation in key fora as appropriate.

13.1.7 Planning and Budgeting Systems

In addition to the Health Sector Budget for the six year period of the NHSP, MOH will prepare an Annual Action Plans with budgets that will include all the resources (GRZ and CP) available for the implementation of the annual plan. In principle, all health sector resources[1] will be captured in the MOH resource envelope and the MTEF.

MOH will ensure that the proportion of the overall GRZ budgetary allocation to the health sector is maintained at 11% (2005) or increased over the period of the NHSP to 12% in 2006 and 15% by 2011. Further, GRZ/MOH will ensure that all plans, budgets and expenditures are in line with national policy and the requirements of the NDP, the NHSP and MTEF.

The planning and budgeting framework and process will follow the MTEF requirements and guidelines. Each level of the health system will formulate its own plan, priorities and budget requirements in line with the budget ceilings allocated to them by MoFNP and the annual planning and budgeting guidelines issued by the MOH. Increasingly, Rolling Work Plans will replace the current annual action plans to improve the quality of planning and reduce transaction costs.

The MOH will develop sector work plans with expenditure proposals as part of the MTEF and the annual budget cycle in consultation with the CPs. Proposed expenditures on all health activities, however financed, should be included in the budget, as required by GRZ financial regulations and procedures.

The CPs will be requested to support the health sector by aligning and – to the extent possible – by synchronising their interventions with the MOH priorities and timelines as specified in the NHSP. To support this process, the CPs will be expected to provide information on their disbursements to the MOH by the end of each February, for financing Quarter 2+3, and at the end of each August, for financing Quarter 4 and Quarter 1 of the next year. Wherever possible and appropriate, consultations on health issues will be undertaken collectively through meetings with the members of the SAG, rather than through bilateral meetings of MOH with individual CPs.

13.1.8 Financial Management and Control

MOH will ensure that effective and adequate financial management systems and financial control procedures are in place such that all GRZ and CP resources can be disbursed and accounted for as planned. The Financial and Administrative Management System (FAMS) will continue to form the basis for accounting and financial control within the MOH and its agents. The ongoing programme for strengthening the capacities of the FAMS within the MOH and will be supported and accelerated.

Quarterly financial statements will be produced that will capture, classify, analyse and report data covering actual expenditures from sources of funding and budget item according to institution and procurement activities. The statements will be produced within three months after the end of the respective quarter.

[1] Financial resources for the health sector (next to GRZ resources) include: (i) the expanded basket, (ii) the district basket, (iii) various earmarked pooled funding arrangements (like those for training institutions, hospital reforms, pharmaceuticals and MOH, and (iv) specific programme/project support.

Annual consolidated financial (income and expenditure, all levels) statements for the previous year will be prepared as part of the JAR. These statements will be audited by the Auditor General of Zambia once per year, and may be supplemented by a periodic external independent audit as agreed by all parties.

The audit report will be presented within a period of six months from the end of the respective financial year. It will contain an opinion as to whether the financial statements submitted during each fiscal year, together with the procedures and internal controls involved in their preparation, present a true and fair picture of the financial activities undertaken and can be relied upon to report against the transactions of pooled and other funds that are contributed by the GRZ and CP.

Each quarter, the MOH/GRZ will provide the CPs with a financial monitoring report for the preceding quarter and a reconciliation of the Health Sector Account. Bank statements will be made available on request. CPs will report their disbursements and balances for all contributions relating to the Annual Action Plan on a quarterly basis, within 8 weeks after the end of a quarter, in order to establish a comprehensive financial position for the health sector.

Agreement will be reached between the GRZ and the CPs on the independent audit of expenditure and other fiduciary safeguards, designed to ensure sound financial management as governed by their respective agreements.

13.1.9 Capacity Development

MOH will establish mechanisms to provide adequate capacity, linked to performance, for successful program implementation. Programmes supported by CPs will work through the structures designated by the MOH, in order to build capacity, improve sustainability, and ensure maximum integration with the MOH policies and programmes.

No new project implementation units, financial management agencies, or similar parallel structures will be created for the specific purpose of managing external assistance projects. Notwithstanding this position, MOH may choose to use external agents for implementation tasks in circumstances where it is cost-effective and sustainable to do so. Such arrangements are likely to occur as exceptions, and there should be a clear rationale and strong case made for this approach.

CPs will work towards establishing a pooled funding arrangement for externally funded technical assistance to MOH to improve coordination and avoid duplication. Technical Assistance programs should rely on Zambian resources whenever possible. Expatriate assistance (when required) should be complementary to and develop national and regional consultancy expertise.

MOH, in consultation with the CPs, will be responsible for preparing an annual Capacity Development Plan, which identifies programme implementation priorities and associated financing needs. This plan will include broad capacity development priorities such as technical assistance, institutional strengthening, training, research, pilots and studies for supporting the planning and implementation of the NHSP. In this respect, the CPs will ensure that their current and proposed support to capacity development is aligned with the plan. A contingency provision to fund urgent tasks that were not anticipated will be included. Allocation of these funds will be approved through the second annual SAG meetings.

In the medium term, MOH with support from CP will establish a database of local, regional and international consultants with specialised skills and expertise that can be contracted to provide support to the MOH as need arises. Suitably qualified local consultants will be identified on a competitive basis and will be given priority during selection. MOH will play a central role in the selection and procurement of consultants, but subject to the respective CP being satisfied as to the feasibility of the TORs, the competence of selected personnel, and the fairness of the procurement process.

13.2 Monitoring and Evaluation

Monitoring and evaluation of the implementation of the NHSP will be conducted through appropriate existing and new systems, procedures and mechanisms. The Monitoring and Evaluation Sub-Committee of SAG will be responsible for providing advice on all matters concerning monitoring and evaluation. The following describe the main tools and approaches that will be applied in the monitoring and evaluation of the implementation of the NHSP.

13.2.1 NHSP Indicators

The indicators to be used in monitoring and evaluating this NHSP cover 14 major thrusts: Child health, reproductive health, malaria, TB, HIV/AIDS and blood safety, critical service delivery areas, infrastructure and equipment, essential drugs and medical supplies, health education, gender and equity, human resources, surveillance and information systems, financing and procurement. The goals/objectives and indicators were guided by the following sources:

- Millennium Development Goals and indicators;
- Indicators covered in the previous NHSPs that are still deemed relevant;
- Goals, indicators and targets of national programmes and international declarations/commitments (PRSP, Roll Back Malaria, Stop TB Programme, Abuja Declaration, etc); and
- Other emerging high priority areas for the health sector in Zambia.

MOH and the CPs will harmonise sector performance indicators (as specified in the MTR/NHSP), and use these as the basis for the joint reviews. Indicators will include: sector performance benchmarks and triggers for sector budget support, output and process indicators to assess service delivery (quality, access, efficiency) and indicators of health status (impact). They will be derived as far as possible from routine monitoring systems (HMIS) and build on those required for the monitoring and evaluation of the NDP/PRSP and the MTEF in order to avoid duplication of effort.

13.2.2 Monitoring

Depending on the type and relevance of the indicators, routine monitoring will be undertaken, on a monthly, quarterly, bi-annual and annual basis. The HMIS, FAMS and other routine systems will be the major tools for data collection. The SAG, MOH and other agencies will primarily use this data and its analyses for decision making.

MOH will produce quarterly activity and financial reports for all levels of the health system for consideration at the Mini-SAG meetings. It will also produce an Annual Performance Review Report every May, on the performance of the sector against annual plans and output targets.

MOH will be responsible for sector performance monitoring and review. It will plan and lead the Joint Annual Reviews (JAR) in January-February every year, together with appropriate involvement and support of the CP, other Government ministries and other key stakeholders. The findings of the JAR will be presented at the first SAG meeting of each year, in March.

CPs and other key stakeholders will actively and fully participate in the JAR and will accept the JAR as satisfying their own review requirements. To the extent possible, they will not undertake separate monitoring or review missions, without the approval of the M&E Sub Committee of the SAG.

13.2.3 Evaluation

There will be two evaluations during the duration of this plan. These will consist of a mid-term assessment after the first 3 years of implementation and a comprehensive final evaluation in 2011. MOH will organise a joint mid-term review (MTR) before the end of the third year of NHSP. An independent external evaluation will be undertaken in the final year of NHSP. All stakeholders will agree on the timing, terms of reference and composition of these two review missions. All costs will be included in the Health Sector Budget. Where appropriate/possible, the MTR and the final NHSP evaluations will be combined with the JAR for that year.

The mid-term assessment will focus on progress made in plan implementation and assess the appropriateness of the overall strategic direction. It will therefore be designed to inform the remaining period of the plan and recommend adjustments where need be.

The final evaluation will focus on impact/outcome of the NHSP and assist in providing the contextual framework for the subsequent planning period.

14 APPENDICES

Number	Description
Appendix I	Logical Framework
Appendix II	Monitoring and Evaluation Indicators
Appendix III	Existing and Proposed Organisational Structures

[1] Millennium Development Goals