



Federal Ministry of Health

National Strategy for Child Survival in Ethiopia

**Family Health Department
Federal Ministry of Health**

**July 2005
Addis Ababa, Ethiopia**

NATIONAL STRATEGY FOR CHILD SURVIVAL IN ETHIOPIA

**FAMILY HEALTH DEPARTMENT
FEDERAL MINISTRY OF HEALTH**

**Addis Ababa, Ethiopia
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Table of Contents

Table of contents	i
Acronyms	iv
Foreword	vi
Acknowledgements	vii
Executive Summary	1
CHAPTER I Introduction	6
1.1 Background	6
1.2 Geography and Climate	6
1.3 Demographic Situation	6
1.4 Socio-economic background	7
1.5 Federal administrative structure	8
1.6 Ethiopian National Health Policy	9
1.7 Organization of the health system	9
CHAPTER II Situation analysis of child health in Ethiopia	10
2.1 Child Survival: a national health challenge	10
2.2 Morbidity pattern in children	10
2.2.1 Breastfeeding	11
2.2.2 Complementary feeding	12
2.2.3 Vitamin A	12
2.2.4 Treatment of children	12
2.3 Mortality pattern in children	12
2.3.1 Childhood mortality rates	12
2.3.2 Child mortality trends	13
2.3.3 Proportional mortality	13
2.3.4 Regional variations	14
2.3.5 Causes of mortality	15
2.3.5.1 Maternal mortality	15
2.3.5.2 Child mortality	16
2.3.6 Preventable mortality	18
2.3.7 Determinants of childhood mortality	18
CHAPTER III The Health System	20
3.1 National Health Plans	20
3.1.1 The Health Sector Development Programme (HSDP)	20
3.1.2 Health Sector Development Programme II	21
3.1.3 Accelerated expansion of primary health care facilities in Ethiopia	22
3.2 Health care coverage	23
3.3 Human Resources for Health	23
3.4 Utilization of health service	24
3.5 Health care financing	25
3.5.1 Total Health Expenditures	26
3.5.2 Functional distribution of expenditures	27
CHAPTER IV Opportunities and challenges for child survival strategy	29
4.1 Government priority	29
4.2 Opportunities	29

4.3 Challenges	30
CHAPTER V Target conditions and key high impact interventions	31
5.1 Target conditions	31
5.2 Key interventions	32
5.3 Impact of key interventions towards achieving the child health MDG	34
5.4 Bottlenecks	38
CHAPTER VI The Child Survival Strategy	40
6.1 Introduction	40
6.1.1 Objectives	40
6.1.2 Modes of implementation	40
6.1.3 Focus on the Community - The Health Services Extension Program	41
6.1.4 Enabling the HEP to fulfil its potential for children	42
6.1.5 Strengthening and scaling up child health interventions	42
6.1.6 Linkage within the system and the roles of the health center and the hospital and Woreda Health Office	43
6.1.6.1 The Health Center	43
6.1.6.2 The District Hospital and higher referral Hospitals	44
6.1.6.3 The Woreda Health Office	45
6.2 Activities proposed for each intervention at each level	45
6.2.1 Preventive and promotive care	46
6.2.1.1 Maternal and neonatal care	46
6.2.1.2 Nutrition	48
6.2.1.3 Disease control	50
6.2.1.4 Clinical Care	52
6.3 Health care for the children of pastoralists	55
6.4 The operational implication for health delivery systems and programmes	69
6.4.1 Federal Ministry of Health	56
6.4.2 Regional Health Bureaux	57
6.4.3 Woreda Health Office	57
6.4.4 Health Services Extension Package	57
6.4.5 Integrated Management of Childhood Illness (IMCI)	57
6.4.6 Expanded Program for Immunization	58
6.4.7 Maternal and Neonatal Health	58
6.4.8 Nutrition	58
6.4.9 Malaria	58
6.5 Phasing of the Strategy	59

CHAPTER VII Partnership for child survival	60
7.1 The child survival partnership	60
7.2 Partnership in Ethiopia	60
7.3 The role of Health Training Institutions in the Ethiopian Child Survival Strategy	62
7.4 Partnership with professional societies for child survival	63
7.4.1 Ethiopian Paediatrics Society (EPS)	63
7.4.2 Ethiopian Society of Obstetrics and Gynaecology, EPHA	63
CHAPTER VIII Management of the child survival strategy	64
8.2 National Child Survival Steering Committee	64
8.3 National Child Survival Executive	64
8.4 Regional Child Health Executive	65
8.5 Woreda Child Survival Team	66
8.6 Kebele Child Survival Team	66
CHAPTER IX Supervision, Monitoring and Evaluation	67
9.1 Supervision	67
9.1.1 Supervision visit for skill reinforcement, and problem solving to support the implementation of child survival strategy	67
9.2 Monitoring and Evaluation	68

Acronyms

ARI	Acute Respiratory Infection
ARM	Annual Review Meeting
BCC	Behavior Change Communication
BCG	Bacillus Calmettee Guerin
CBHW	Community Based Health Worker
CDC	Communicable Disease Control
CHP	Community Health Promoter
CIDA	Canadian International Development Agency
C-IMCI	Community-Integrated Management of Child Hood Diseases
CJSC	Central Joint Steering Committee
CMH	Commission on Macroeconomics and Health
CSA	Central Statistics Authority
CSS	Child Survival Strategy
DHS	Demographic and Health Survey
DPT	Diphtheria, Polio, Tetanus
EFY	Ethiopian Fiscal Year
ENA	Essential Nutrition Action
EOS	Enhanced Outreach Strategy
EPHA	Ethiopian Public Health Association
EPI	Expanded Programme on Immunization
EPS	Ethiopian Paediatric Society
ESHE/JSI	Essential Services for Health in Ethiopia/ John Snow Inc.
ESOG	Ethiopian Society of Obstetrics and Gynaecology
FDRE	Federal Democratic Republic Ethiopia
FHD	Family Health Department
FLH	Frontline Health Workers
FMOH	Federal Ministry of Health
GDP	Gross National Product
GTZ	German Technical Cooperation
HC	Health Centre
HDI	Human Development Index
HEP	Health Extension Package
HEW	Health Extension Worker
HF	Health Facility
Hib	Haemophilus influenza type b
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immunity Deficiency Syndrome
HMIS	Health Management Information System
HSDP	Health Sector Development Programme
IEC	Information, Communication and Education
IMCI	Integrated Management of Childhood Diseases
ITN	Insecticide Treated Net
JICA	Japan International Cooperation Agency
KMC	Kangaroo Mother Care
LLITN	Long lasting Insecticide Treated Nets
MDG	Millennium Development Goal
MOE	Ministry of Education
MPS	Making Pregnancy Safe
NGO	Non Governmental Organization
NHA	National Health Account

NID	National Immunization Day
ORS	Oral Rehydration Salt
ORT	Oral Rehydration Therapy
PHC	Primary Health Care
PHCU	Primary Health Care Unit
PIM	Programme Implementation Manual
PMTCT	Prevention Mother To Child Transmission
PPHC	Primary Prevention Health Care
RBM	Roll Back Malaria
RHB	Regional Health Bureau
RJSC	Regional Joint Steering Committee
SD	Standard Deviation
SDPRP	Sustainable Development and Poverty Reduction Programme
SIA	Supplemental Immunization Activity
SIDA	Swedish International Development Agency
SNNPR	Southern, Nations, Nationalities and Peoples Region
STI	Sexually Transmitted Disease
TB	Tuberculosis
TBA	Traditional Birth Attendant
TFR	Total Fertility Rate
TT	Tetanus Toxoid
U5MR	Under 5 Mortality Rate
UCI	Universal Childhood Immunization
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNDP	United Nations Development Programme
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
USD	United States Dollar
VCT	Voluntary Counseling and Testing
WHO	World Health Organization/Woreda Health Office
ZHD	Zonal Health Department

Foreword

Ethiopia, through the progressive implementation of the Health Sector Development Program in the last seven years, has made great strides to improve maternal and child survival. However, the National Infant and Under-five Mortality Rates are still high about 97/1000 and 140/1000 respectively. About 90% of mortality in under-fives is caused by pneumonia, malaria, diarrhea, measles and neonatal causes (pre-maturity, asphyxia and neonatal sepsis). Malnutrition and HIV are underlying causes in about 57% and 11% of these deaths respectively.

The levels of mortality are worsened particularly by poverty, inadequate maternal education, lack of safe water supply and sanitation, and high fertility and inadequate birth spacing.

Though, there is a continuously declining trend of under five mortality since 1960s, still about 472,000 Ethiopian children die each year before their fifth birthday, which places Ethiopia sixth among the countries of the world in terms of the absolute number of child deaths. And yet there are effective and proven interventions which can be used to reduce under five mortality if universally accessible. These interventions would need to be at our disposal if the Millennium Development Goal (MDG) of reducing child deaths by two thirds by 2015 is to be achieved.

Following the high-level discussions with the Global Child Survival Partnership, the Federal Ministry of Health and its partners organized a National Child Survival Conference from 22-24 April 2004. One of the major recommendations of the meeting was to prepare a comprehensive National Child Survival Strategy and implementation plan for the reduction of under five-child mortality. This document is the outcome of this effort.

The strategy addresses the underlying conditions that account for 90% of child mortality plus malnutrition and HIV/AIDS, the two most important underlying causes of death. The focus will be on selected cost effective and high impact interventions. The strategy is an important component of the Health Sector Development Program (HSDP III) and Social Development and Poverty reduction Program (SDPRP II).

The overall objective of the Strategy is to reduce the current under-five mortality of 140/1000 to 67/1000 by 2015 - this being a reduction of two thirds from the 1990 rate of about 200/1000 live births or a 52% reduction from the 2004 rate of 140/1000 live births.

The Health Services Extension Program (HSEP) is the main pillar of the Child Survival Strategy for increasing access to promotive, preventive and basic essential curative health services to the majority of the under served population.

I strongly believe that this document will be instrumental in scaling up the child survival interventions through the active participation of the community, the relevant sectors, local and international partners and other stakeholders to achieve the Millennium Development Goal of reducing Child Mortality by two-third by 2015. I take this opportunity to thank all those who contributed to the formulation of this important strategy, particularly WHO, UNICEF, USAID, WB and CIDA.

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Executive Summary

Introduction

About 472,000 Ethiopian children die each year before their fifth birthday, which places Ethiopia sixth among the countries of the world in terms of the absolute number of child deaths. Yet, there are effective low cost interventions to prevent two-thirds of these deaths.

Following high-level discussions with the Global Child Survival Partnership, the Federal Ministry of Health and its partners organised a National Child Survival Conference from 22-24 April 2004. The conference recommended that a National Strategy and Plan of Action for the reduction of child mortality should be prepared. The Ministry of Health has now prepared this strategy in partnership with WHO, UNICEF, USAID, World Bank and CIDA.

The National Child Survival Strategy is one module of a three-part strategy. It should be read in conjunction with the National Reproductive Health Strategy and the National Nutrition Strategy. Together, these three complementary strategies address the preventive, promotive and clinical care needs of the highly vulnerable maternal, newborn and child health groups.

The Health Situation of Children

In general, children in Ethiopia suffer from poor health. The national Under-five Mortality Rate is about 140/1000, with variations among the regions from 114 to 233/1000. About 90% of mortality in under-fives is caused by pneumonia, neonatal causes (prematurity, asphyxia and neonatal sepsis), malaria, diarrhoea and measles. Malnutrition is the underlying cause of death in about 57% of these deaths, and 11% are associated with HIV infection.

The levels of mortality are also worsened particularly by poverty, inadequate maternal education, lack of potable water and sanitation, high fertility and inadequate birth spacing.

Indicators of maternal and child care at the community and health facility levels demonstrate that the coverage and utilization rate of preventive and promotive services is very low. Fewer than 30% of women receive antenatal care and only 28% of children are fully immunised by their first birthday. Surveys indicate that only a small proportion of children receive curative care for potentially life-threatening conditions, either at home or in health facilities.

The Health System

The Ethiopian health service currently reaches about 60% of the population. There are critical shortages of skilled human resources. At present the community-based health service is not well developed. The Federal MOH is responding to these needs through two major initiatives in the context of the Health Sector Development Program:

- A plan for expansion of primary health facilities and staff, to reach 85% of the population by 2009.
- The Health Services Extension Program (HSEP), will provide Health Extension Workers (HEW) in Health Posts in each community (Kebele). The HEWs, working with other community-based workers and supported by their local Health Centre will be trained and equipped to provide a wide range of promotive and preventive services as

well as basic curative care for the major childhood illnesses. The HSEP is seen as an important opportunity to strengthen health services for mothers and children.

An Opportune Moment

Although there are major barriers to overcome, the moment is right for a Child Survival Strategy. There is a high level of national and international commitment to child survival; feasible and affordable interventions are available against all the major causes of child mortality; Ethiopia already has wide experience with relevant child health programmes, and the plans for Accelerated Expansion of Primary Health Services (AEPHS) and the HSEP can provide the means for achieving the child survival goals.

Targets and Interventions

The strategy addresses the five conditions (pneumonia, neonatal conditions, malaria, diarrhoea, and measles) that account for 90% of child mortality plus malnutrition and HIV/AIDS, the two most important underlying conditions. The focus of action will be on selected high impact key interventions. A list of these key interventions and their impact in mortality reduction is presented in Table 7 (page 32). The list includes preventive, promotive and curative services.

The Child Survival Strategy

The overall objective of the Strategy is to reduce under-five mortality to 67/1000 by 2015 - this being a reduction by two-third from the 1990 rate of 200/1000 live births and 52% from the 2004 rate of approximately 140/1000.

Its specific objectives are:

- To proportionally reduce the neonatal, infant and child mortality rates while achieving the overall objective
- To ensure the greatest possible reduction of mortality among the children of the poorest and most marginalized sections of the population.
- To contribute to the reduction of maternal mortality to achieve the Millennium Development Goal by 2015
- To ensure the availability of quality essential health care for women and children in the community and health facilities

The strategy focuses on the health system, but long term gains will also depend on progress in other sectors, including reducing poverty, improving food security, raising levels of maternal education and the status of women in society, and the provision of safe water and sanitation.

The main pillar of the strategy is the Health Service Extension Program, which aims to scale up coverage of essential health services to the rural community. Success will depend on this program being rolled out as rapidly as possible while ensuring high quality care and full coordination of its activities and integration with higher tiers of the health service.

Implementation of the Key Interventions

The Strategy spells out the actions to be taken at each level of the health system, starting with the community. The emphasis is on prevention and promotion, but first level treatments of malaria and diarrhoea have been added to the original Health Service Extension Program. Basic treatment of common killers was added to save lives in the interim before promotive actions are fully effective and to enhance the credibility, and thus, the effectiveness, of the HEWs' efforts in prevention and promotion.

The focus on key interventions has implications for the planning and development of the various programmes and delivery mechanisms within the health system. This presents an opportunity to focus on essential programme improvements in a way that will produce rapid, observable results.

Three levels of the health system are involved. Most of the key interventions start in the community and Health Post. Much of the preventive and promotive work is the primary responsibility of the HEWs, as the management of illness starts with the family's ability to recognise the illness and seek early treatment. All of these actions must be supported by the Health Centre staff, through the provision of referral care, technical support and close collaboration with the HEWs. The District Hospitals have an important role in referral care, training and in operational research.

The Strategy, therefore, requires action to build and maintain the capacity at all three levels. The Woreda Health Office must be strengthened to effectively plan, support and monitor the necessary actions and inputs at all three levels. The focus needs to be on overcoming the major bottlenecks of access to care, increasing availability of skilled human resources, improving supply and logistics, systems strengthening for the effective supervision and the referral of women and children who need higher level care.

Phasing

The strategy is contingent on the implementation of the HSEP and the PHC expansion plan. If these progress according to plan, by 2009, 85% of the population will have access to essential care. The Strategy therefore takes 2005/06 – 2009/10 as its first phase. The second phase will be from 2010/11-2014/15. There will be no pilot phase, but the Strategy proposes close monitoring of the implementation of its interventions and their impact with frequent reviews of progress. This dynamic approach will permit corrective measures to be taken at local or national level as soon as they are needed. It will also allow for the introduction of new interventions as soon as practical procedures are available.

Impact of Key Interventions towards Achieving the Child Health MDG

Full implementation of child survival interventions as planned by 2009 will achieve under-five mortality reduction by 48% from current level which is very close to the MDG target of 52% reduction by 2015. This level of achievement will require investing an average marginal cost (MC) of US\$2.43 per capita/year over the next four years. By investing an average marginal cost of US\$3.53 per capita/year over the next ten years, Ethiopia could achieve 61% reduction in under-five mortality by 2015 which exceeds the MDG4 target. These interventions will contribute to reduce the maternal mortality ratio (MMR) by 23% in

the first phase and 37% in the second phase. MDG5 calls for a third-quarters reduction in MMR from 1990 level.

Summary of mortality reduction and marginal cost by service delivery mode

Service delivery mode	U5M reduction		MMR reduction		MC per capita /year (in US\$)		Average MC per capita/year (in US\$)
	2005/6 - 2009/10	2010/11 – 2014/15	2005/06 - 2009/10	2010/11 – 2014/15	2005/06- 2009/10	2010/11- 2014/15	
Family/community based care	27%	32%	1.8%	2.6%	0.83	1.72	1.27
Population based outreach services	11%	15%	4.7%	7.2%	1.04	1.26	1.15
Clinical based care	15%	28%	17.4%	30.2%	0.56	1.65	1.10
Total	48%	61%	22.6%	36.8%	2.43	4.62	3.53

These achievements are contingent on effective and efficient implementation of the selected key interventions taking into consideration the following five critical assumptions:

1. GOE, national, and international child survival partners will commit themselves to doubling resources for child survival;
2. The child survival strategy is heavily dependent on the HSEP. It assumes that the HSEP will be carried out in an optimal way by recruiting and training community health workers to become the backbone of community health service;
3. The expansion of primary health facilities including health post, first level and second level referral health facilities as well as the training and deployment of adequate human resources will be fully realized by the year 2009 according to the FMOH plan.;
4. There will be a strong national partnership for Child Survival between the FMOH, UN, multilateral and bilateral organizations and NGOS that are based in Ethiopia;
5. There will be one plan of action and one monitoring and evaluation system.

The Management of the Strategy

The Strategy proposes a management structure which will enable greater collaboration between all concerned bodies. At each level there would be a Child Survival Executive, chaired at national level by the Vice Minister for Health, at the Regional level by the RHB Head and at the district level by the Woreda Health Officer. Their prime functions would be to coordinate the activities of all concerned bodies and to monitor and review progress. A National Child Survival Steering Committee, which will include representatives of all national and international partners in the Child Survival effort, will oversee and provide policy and financial support to the implementation of the Strategy.

Supervision and Monitoring

Effective, responsive supervision at all levels will be crucial to the success of the Strategy. It needs to be taken as a function in its own right and provided with adequate resources of manpower, money and time.

The Strategy will be monitored and evaluated at each level using indicators which will be drawn, to the extent possible from the routine HMIS. The Strategy proposes a basic set of indicators for each level and for different periods.

CHAPTER I

INTRODUCTION

1.1 Background

About 472,000 Ethiopian children die each year before their fifth birthdays. This tragic fact places Ethiopia sixth among the countries of the world in terms of the absolute number of child deaths. Yet, there are effective and proven tools which can be used to achieve the Millennium Development Goal 4 (MDG) of reducing child deaths by two-thirds by 2015, taking 1990 as a benchmark. These tools are within the reach of every country, provided that the necessary commitment and resources are made available and the tools and services are adjusted to the conditions of the country.

Following high-level discussions with the Global Child Survival Partnership, the Federal Ministry of Health and its partners organised a National Child Survival Conference, which took place in Addis Ababa between 22nd and 24th April 2004. The Conference was an opportunity for Ethiopia to examine the dimensions of child mortality and to begin to plan to tackle it. A major recommendation of the Conference was that a National Child Survival Strategy and Plan of Action for the reduction of child mortality should be prepared. The Ministry of Health has prepared this Strategy in partnership with WHO, UNICEF, USAID, World Bank and CIDA.

The National Child Survival Strategy is one module of a three-part strategy. It should be read in conjunction with the National Reproductive Health Strategy and the National Nutrition Strategy. Together, these three complementary strategies address the preventive, promotive and clinical care needs of the highly vulnerable maternal, newborn and child health groups.

1.2 Geography and Climate

Ethiopia is situated in the horn of Africa. The total area of the country is around 1.1 million square kilometres, and it shares borders with Djibouti, Eritrea, Sudan, Kenya and Somalia.

Ethiopia is a country with great geographical diversity and its topographic features range from 4,550m above sea level to 110m below sea level¹. More than half of the country lies above 1,500 metres. There are broadly three climatic zones: the “Kolla”, or hot lowlands, below approximately 1,500 metres, the “Weyna Dega” at 1,500-2,400 metres and the “Dega” or cool temperate highlands above 2,400 metres. In general the highlands receive more rain than the lowlands, but in general the country is prone to recurrent droughts and famines.

1.3 Demographic Situation

The projected population of Ethiopia in 2005 is approximately 71.1 million.² The average household size is 4.8². About 85% of the total population is rural, making Ethiopia one of the

¹ Central Statistical Authority (Ethiopia) and ORC Macro (2001). *Ethiopia Demographic and Health Survey 2000*. Addis Ababa, Ethiopia and Calverton, Maryland, USA: Central Statistical Authority and ORC Macro. [EDHS 2000]

² Health and health related indicators (2003-4). Planning and Programming Department, Federal Ministry of Health.

² EDHS 2000, *ibid*

least urbanized countries in the world. Only nine urban centres have populations of over 100,000, and Addis Ababa is the only urban centre with a population of over a million, accounting for 26% of the total urban population and 3.9% of the total population. At an annual growth rate of 2.7%, the total population is expected to reach 106 million by the year 2020³. Rapid population growth exacerbates critical gaps in basic health services, especially when growth of the economy is low and per capita incomes are in decline.

The average population density is 52.2 per square km, with great variation among regions. Population densities are highest in the highland regions and lowest in the eastern and southern lowlands. Most of the Woredas along the borders of the country have densities of less than 10 persons per square km. 23.2% of the population is concentrated on 9% of the land area. Roughly 50% of the land area represents sparsely populated areas with nomadic or semi-nomadic pastoral ethnic groups living in arid plains or in a semi-desert environment. The settlement pattern of the population and its density greatly affect the provision of health care, including the accessibility and utilization of existing health care facilities.

About 17.5% of the population is aged less than 5 years, 43.5% of the population are under 15 years, 51.9% are between 15 and 59 years and 4.6 % are aged 60 years and above. Twenty four percent of the population are women in the reproductive age (15-49 years).

The Ethiopian Demographic and Health Survey 2000 indicate a total fertility rate of 5.9 children per woman. Fertility is highest in the Oromia Region (6.4 births per woman) and lowest in Addis Ababa (1.9 births per woman). The level of fertility is significantly lower in urban (TFR 3.3) compared to rural areas (TFR 6.4).

The general level of education has marked influence on the spread of diseases, the acceptability of health practices and utilization of modern health services. The literacy status of the population is low. The adult literacy rate is 49% for males and 34% for females. The gross enrolment ratio in primary schools at national level is 64% (53% for girls).⁴

Ethiopia is home to around 80 ethnic groups that vary in population size from more than 18 million to less than 100⁵. Christianity and Islam are the main religions, with 51% Orthodox Christians, 33% Muslims, and 10% Protestants, with the remainder following a diversity of other faiths.

1.4 Socio-Economic Background

Ethiopia is one of the least developed countries in the world with an estimated annual per capita income of USD100. Forty seven percent of the total population live below the poverty line. The UNDP Human Development Index (HDI) for Ethiopia stands at 0.309.

The socio-economic and health development of the country has been hindered by a combination of rapid population growth, poor economic performance and low educational levels.

³ Central Statistical Authority (1994). *The 1994 GC Population and Housing Census of Ethiopia: Analytic Report*. Addis Ababa: Central Statistical Authority

⁴ Ministry of Education (2003). *Education Statistics, Annual Abstract EC 1993*. Addis Ababa: Ministry of Education

⁵ CSA (1998).

Economic performance, which in the 80s was characterized by low or negative growth rates in real GDP and per capita incomes, reflecting decades of civil war, drought and economic mismanagement, was reversed in the 90s. Over the decade, the Government initiated a comprehensive economic reform programme which has had an important bearing on the development of the key socio-economic sectors including health. The new economic policy is aimed at establishing a market-based economic transformation and redirecting Government interventions to the development and strengthening of social services such as education, health, investment in roads and water resources.

The policy environment created by economic reform and macro economic stability helped address poverty in a comprehensive way. The adoption of the Sustainable Development and Poverty Reduction Programme (SDPRP), now gives attention to poverty-related health programme targets.

The Government is also committed to meeting targets set by global initiatives, notably the Millennium Development Goals (MDGs) and the recommendations of the WHO Commission on Macroeconomics and Health (CMH) aimed at strengthening the link between improved health and economic development.

1.5 Federal Administrative Structure

Ethiopia is a Federal Democratic Republic. It has a bicameral parliament: the House of Representatives, whose members are elected from the regions, zones, Woredas (districts) and Kebeles, and the House of Federation, whose members are designated from their respective regions. At present the country has nine Regional States and two City Administrations.

The highest governing body of each regional national state is the Regional Council which has elected members and is headed by a president nominated by the party that holds the majority of seats. The President is assisted by heads of various regional bureaux, including Health. Each region has its own parliament and is responsible for legislative and administrative functions except for foreign affairs and defence.

The National Regional States and City Administrations are further divided into 75 zones, 580 Woredas (districts), and approximately 15,000 Kebeles (communities). There are also two zones and seven Woredas designated as "special". These are medium sized towns or traditional sites of ethnic minorities. The Woreda is the basic administrative unit and has an administrative council composed of elected members. The Woredas are further divided into Kebeles, representing urban dwellers associations in towns and peasant associations in rural villages.

With the devolution of power to regional governments, public service delivery, including health care, has fallen largely under the jurisdiction of the regions. The approach has been to promote decentralization and meaningful participation of the population in local development programmes. For administration of public health care, there is a Regional Health Bureau (RHB) at the Regional level, and a Zonal Health Department (ZHD) at the Zonal level. An increasing number of Woreda health offices are currently being established. It is anticipated that the Zonal level will be phased-out in favour of a strengthened Woreda structure.

1.6 Ethiopian National Health Policy

Following the change of Government in 1991, a number of political and socio-economic reform measures were put in place. Two of these were the development and introduction of a new National Health Policy in 1993 and, in 1997, the formulation of a comprehensive rolling 20-year Health Sector Development Plan (HSDP). Both are the result of the critical assessment and analysis of the nature and causes of the country's health problems. The HSDP is now in its third phase (HSDP III).

The major foci of the health policy are democratisation and decentralization of the health care system, development of the preventive, promotive and curative components of health care, assurance of accessibility of health care for all segments of the population and the promotion of private sector and NGOs participation in the health sector. The national health policy focuses on a comprehensive health service delivery system to address mainly:

- Communicable diseases
- Malnutrition
- Improving maternal and child health

The health service delivery system is decentralized with responsibility for implementation being largely devolved to the districts which plan on the basis of block funding for the sector.

The Policy emphasizes inter-sectoral collaboration, particularly in ensuring family planning for optimal family health and population planning, in formulating and implementing an appropriate food and nutritional policy and in accelerating the provision of safe and adequate water for urban and rural populations.

1.7 Organization of the Health System

Responsibility for administration and operation of government health services is shouldered by the Federal Ministry of Health, Regional Health Bureaux and Woreda Health Offices, depending on the level and type of health facility. Other health institutions are owned and managed by private and non-governmental organizations.

The national health policy emphasizes the importance of achieving access to a basic package of quality primary health care services for all segments of the population, via a decentralised state system of governance. This package includes preventive, promotive and curative services. In order to attain this goal 1) HSDP I introduced a four-tier system for health service delivery. This is characterised by a primary health care unit (PHCU) comprised of one Health Centre and five satellite Health Posts 2) a District Hospital 3) a Zonal Hospital and 4) a specialized referral Hospital. A PHCU was planned to serve 25,000 people, while District and Zonal Hospitals are each expected to serve 250,000 and 1 million people, respectively.

The growing size and scope of the private health sector, both for profit and not-for-profit, offers an opportunity to enhance health service coverage and utilization. HSDP has explicitly recognized the complementarities between the two sub-sectors in its strategy to promote the private sector in health care delivery.

CHAPTER II

SITUATION ANALYSIS OF CHILD HEALTH IN ETHIOPIA

2.1 Child Survival: A National Health Challenge

The health status of Ethiopian children is very poor. Each year an estimated 472,000 children under the age of five die in Ethiopia. Of every 100 children in Ethiopia, 14 will not live to celebrate their fifth birthday. Of those, about ten will not see their first birthday and five will not live beyond their first month of life.

2.2 Morbidity Pattern in Children

There has not been a well-structured survey of national patterns of child morbidity. The data below are largely drawn from the DHS 2000 and focal morbidity studies conducted in different regions.

Acute respiratory infections, malaria, diarrhoea and malnutrition are major causes of both illness and death. The 2000 Ethiopia DHS reported that 24 percent of children under age 5 showed ARI symptoms in the two weeks prior to the survey. The same percentage experienced diarrhoea in the two weeks prior to the survey and 28 percent had fever which is a useful proxy for malaria. According to WHO, 40 percent of the population of Ethiopia is at constant risk of malaria (endemic) and 24 percent is at seasonal risk of malaria (epidemic).

A study from the Southern Nations, Nationalities and Peoples Region (SNNPR) has shown that children less than 5 years of age had between 6 and 12 episodes of illness per year. Forty percent of mothers reported that their child had fallen sick in the previous two weeks, 30% with fever, 25% with diarrhoea, 23% with cough and 13% with rapid breathing⁶.

A similar study of children under 24 months in East Hararge found that 38%, 19% and 34% had suffered from diarrhoea, fever and cough and difficult breathing, respectively. Comparable figures were found in South Gondar. An earlier study carried out in Gondar during the development of IMCI⁷, showed fever, cough and diarrhoea to be by far the most common presenting complaints in Health Centres. It also found that about 60% of children presented with more than one condition.

Malnutrition, particularly in combination with ARI, diarrhoea, malaria or measles is another important cause of morbidity in children. It is closely linked to inappropriate feeding practices and food insecurity in many parts of the country.

Table 1 summarises the magnitude of malnutrition in the country.

⁶ ESHE/JSI and SNNP RHB, Regional Household Survey, 2003.

⁷ WHO Bulletin

Table 1. Percentage of children under 5 classified as malnourished

Characteristics	Height-for-age (Stunting)		Weight-for-height (Wasting)		Weight-for-age	
	-3 SD	-2 SD	-3 SD	-2 SD	-3 SD	-2 SD
All children	26	52	1	11	16	47
Residence						
Urban	19	42	<1	6	8	34
Rural	27	53	2	11	17	49
<i>Maternal Education</i>						
Secondary +	11	33	<1	7	4	28
No education	28	53	2	11	17	50

Source: Ethiopia DHS, 2000

Nutritional status varies greatly by region, with the highest rates of malnutrition being found in Tigray, Amhara and SNNP regions, and the lowest rates in the two urban regions, Addis Ababa and Dire Dawa. More than 50% of Ethiopian families do not have food security. As the table above shows, rural children are consistently more stunted and wasted than their urban counterparts. Maternal education is also a major determinant. Severe stunting or wasting is two to four times more common in children of mothers with no education compared with children of mothers with at least secondary education.

2.2.1 Breastfeeding

Breastfeeding is nearly universal in Ethiopia. Ninety-six percent of children, both urban and rural, have been breastfed during some period in their lives and this varies minimally across regions. Women continue to breastfeed for an extended period. At 24 months of age 72% are still breastfeeding and at 36 months 31% are still breastfeeding.

Breastfeeding practices, however, are not optimal. Pre-lacteal feeding is common. An IMCI baseline survey in one district showed 73% of children were given butter as a first feed before initiating breastfeeding and only 10% of children were not given any feeding other than breast milk. Nationally, only 52% of newborns are put to breast within one hour of birth, at 6 months of age 38% of infants are exclusively breast fed and only 75% are breastfed on the first day of birth⁸. Regional variations are significant. In Amhara region only 32% and 51% of newborns are breastfed within one hour and one day of birth, respectively. This compares with 62% and 94% in SNNPR⁹. The median duration of exclusive breastfeeding is 2.5 months, varying from 1.8 months in urban children to 2.6 months among rural children. Less than 80% of infants less than two months of age are exclusively breastfed. This proportion drops rapidly over the ensuing months and by six months of age about 38% of infants are still exclusively breastfed.

⁸ DHS 2000

⁹ DHS 2000

2.2.2 Complementary Feeding

Complementary feeding starts too early in about 14% of infants, and too late in about 68%. At 6 to 7 months of age only about 34% of children are receiving adequate complementary food and this figure rises to its peak of only 84% at 16 to 19 months¹⁰.

2.2.3 Vitamin A

A national survey of school children in 1998 found that 1% had Bitot's spots. Nationwide, 56% of children received vitamin A supplementation in the six months preceding the 2000 DHS. This coverage varied by urban-rural residence, but even more profoundly by region. While more than 80% of children in Addis Ababa and Dire Dawa received Vitamin A, only about one quarter of children in Afar did so.

Supplementation did not necessarily correspond to apparent need. In Afar, where the apparent need was greatest, supplementation was also lowest. In Addis Ababa, where consumption of Vitamin A-rich foods was the second highest, supplementation was also among the highest.

2.2.4 Treatment of Children

Prompt diagnosis and appropriate treatment can prevent death and long-term illness. A significant and widespread finding of the DHS and focal studies was that only a small percentage of children with common, potentially life-threatening, conditions received appropriate care. The DHS calculated that appropriate care was given to only 3% of children with fever, 16% with ARI and 45% with diarrhoea. In Hararge, of the children with cough and fever only 29% and 18%, respectively, were taken to clinics for treatment. The study in South Gondar showed that 27.3% of children with ARI sought care; only 3.2% of children with fever and 29% with diarrhoea were taken to a health provider. A similarly study in Dabat showed that less than 30% of children with ARI were taken for treatment.

A study from Jimma to determine mothers' health seeking behaviour showed that 45% were treated in health institutions, 24% at home, 4% by traditional healers and 27% received no care.

2.3 Mortality Pattern in Children

2.3.1 Childhood Mortality Rates

The 2000 Ethiopia DHS estimated the Under-5 Mortality rate for the preceding five years as 166, which ranked Ethiopia 21st in the world by under-5 mortality rate.

Available estimates for mortality rates in childhood are shown on Table 2.

¹⁰ DHS 2000

Table 2. Childhood Mortality Rates

Period	Data source	Neonatal Mortality ¹	Postneonatal Mortality ²	Infant Mortality ³	Child Mortality ⁴	Under-5 Mortality ⁵
2002-2003	FDRE MOH			97		140
1996-2000	DHS 2000	49	48	97	77	166
1991-1995	DHS 2000	68	62	130	94	211
1986-1990	DHS 2000	63	70	133	96	217

Sources: Ethiopia DHS, 2000; Federal Democratic Republic of Ethiopia (FDRE) Ministry of Health (MOH), "Health and Health-Related Indicators," EC 1995/GC 2002-03; UNICEF State of the World's Children, 2004.

¹ Number of deaths per 1000 live births within the first month of life

² Number of deaths per 1000 live births between the first month of life and the first birthday

³ Number of deaths per 1000 live births within the first year of life

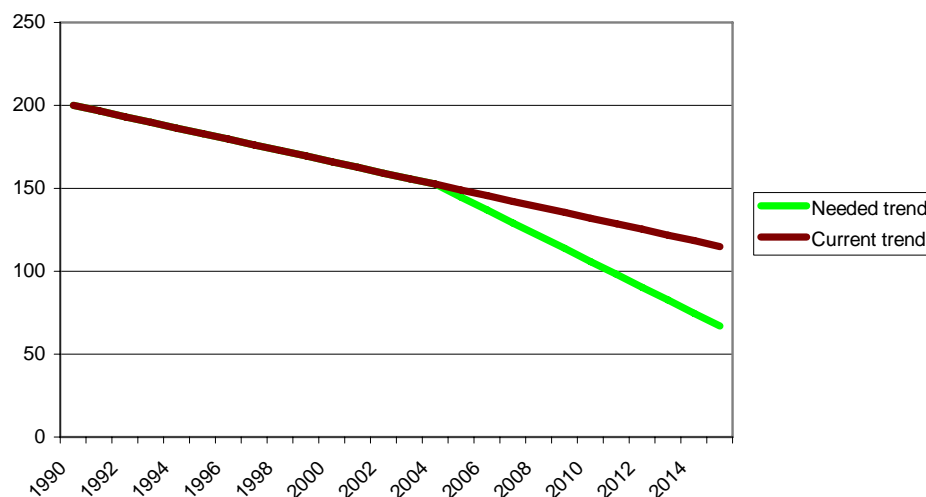
⁴ Number of deaths per 1000 children surviving to age one, between ages one and five

⁵ Number of deaths per 1000 live births within the first five years of life

2.3.2 Childhood Mortality Trends

From 1960 to 2000 there has been an average 1.2% annual decrease in under-5 mortality. This welcome trend should be compared with the rate of reduction needed to achieve the MDG 4 for child mortality by 2015, which is about 7% per year starting from 2004 (or a decline in the Under-5 mortality rate of 8/1000 per year).

Figure 1. Current U5MR Trend versus Trend Needed to Reach MDG

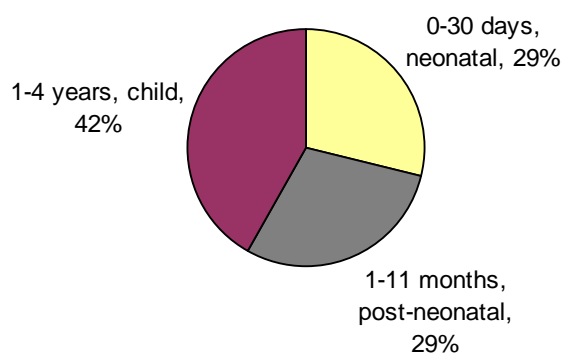


2.3.3 Proportional Mortality

For the period 1996-2000, the age distribution of under-5 deaths was 29% in the first 30 days of life, 29% from the first month to the 11th month of life, and 42% from the first year to the fourth year¹¹. The neonatal mortality rate is high in absolute terms with Ethiopia ranking fifth in the world in neonatal mortality. Deaths in the neonatal period account for a smaller proportion of under-5 deaths than the average for the developing world (36%). This underscores the fact that children in Ethiopia are still dying in large numbers from preventable and treatable conditions later in childhood.

¹¹ Ethiopia DHS, 2000

Figure 2. When are children dying ?

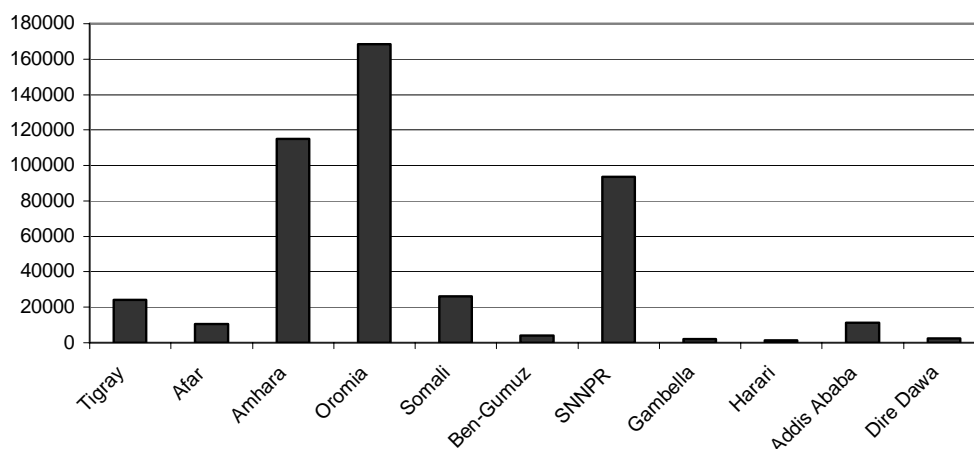


Source: Ethiopia DHS, 2000

2.3.4 Regional Variations

Ethiopia is a diverse country and childhood mortality is not evenly distributed throughout the country. Under-5 mortality rates range from a low of 114 in the capital city of Addis Ababa to a high of 233 in Gambella and 229 in Afar, two remote regions¹². These rates have more meaning if the mortality is presented as absolute numbers of deaths of children, as below.

Figure 3. Number of Under-5 Deaths by Region



Source: Child Health in Ethiopia. Background document for the National Child Survival Conference April 2004

There is also significant variation among regions in the ratios of the rates to each other. For example, the ratio of neonatal mortality to infant mortality in Tigray is 0.66, but in Afar the equivalent ratio is 0.35. This discrepancy may reflect differences in cultural practices or health services.

There are vast differences in population size among the regions. The population of about 25 million in Oromia is approximately 137 times greater than that of Harari, with a population of 178,000. These differences are mirrored by differences in government administrative

¹² Child Health in Ethiopia – Background document for the National Child Survival Conference, April 2004

structure, relative health systems capacity and a host of other important determinants of child health.

The three largest regions – Oromia, Amhara and SNNPR – together account for over 80% of Ethiopia’s total population and more than 80% of under-5 deaths. Progress towards the child survival MDGs in Ethiopia will not occur without progress in these three largest regions.

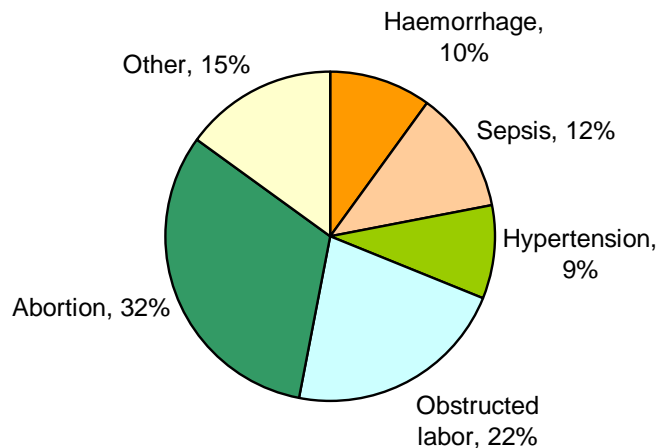
2.3.5 Causes of Mortality

2.3.5.1 Maternal Mortality

Although maternal mortality is not the prime target of this Strategy, the survival and welfare of the child and his or her mother are intimately related. The key interventions (see chapter V) include some which contribute to reducing some causes of maternal mortality.

The maternal mortality ratio in Ethiopia is estimated to be 871/100,000 live births¹³. This compares with an average of 910 for sub-Saharan Africa (WHO). As with much information on mortality, the only estimates for attributable causes of maternal mortality come from health facilities and are subject to self-selection bias. FMOH reports from this source show that complications resulting from abortion account for 32% of all maternal deaths, obstructed labour 22%, sepsis 12%, haemorrhage 10% and hypertension 9%. Malaria, anaemia and HIV/AIDS contribute to about 20% of maternal deaths and also contribute to perinatal mortality.

Figure 4. Causes of Maternal Mortality



Source: FDRE MOH, 2002-03. Facility-based deaths.

2.3.5.2 Child Mortality

Population-based data on causes of under-5 mortality in Ethiopia do not exist, but there are useful reports and estimates from various sources. These can be used to obtain an adequate picture of the major causes of child death.

¹³ Planning and Programming Department, FMOH, FDRE MOH

The FDRE MOH facility-based surveillance system reports that in 2002-03 there were 2,409 deaths due to malaria. According to facility records¹⁴, pneumonia is the leading cause of child deaths accounting for 40% of deaths in this age group. Malaria accounts for 21%. A 2001 Roll Back Malaria (RBM) baseline survey estimated that 28% of mortality in under-5 children is attributable to malaria. FMOH data do not include causes of death for children other than infants, and appreciable mortality from diarrhoea and pneumonia, particularly in association with malnutrition and HIV is expected to occur in the one to four year age.

Measles remains a problem in Ethiopia, due mainly to the low measles immunization rate (estimated coverage of 51% in 2001). A total of 3,797 cases and 58 deaths due to measles were reported in 2002-03. While this figure followed a successful measles vaccination campaign in 2002-03, such campaigns may not be sustainable in the long-term, and it seems reasonable to attribute a slightly larger proportion of mortality to measles in Ethiopia.

The 2000 DHS states that, about 29% of under-5 deaths occurred in the neonatal period. Since only a small number of deaths in this period can be attributed to causes such as diarrhoea or pneumonia, this Strategy assumes that about 25% of under-5 deaths are directly attributable to neonatal complications.

There are no population-based data on the causes of neonatal mortality. Routine health information on the 5% of children that are born in health facilities, mainly in urban areas, reports that 32% of deaths are due to infection, 29% to birth asphyxia, 24% prematurity and 15% other causes, including neonatal tetanus. There are an estimated 17,900 neonatal tetanus cases every year, of which 13,400 die, making Ethiopia fourth in the world for neonatal tetanus deaths. This translates to approximately 10% of deaths in the neonatal period.

It is reasonable to estimate that asphyxia, infection and tetanus account for even larger proportions of deaths in the community. These conditions lead rapidly to death in the newborn and health services in the community usually have little to offer. For the same reason it might also be expected that in the community the percentage of deaths due to prematurity would be higher.

The current estimate of adult prevalence of HIV is 4.4% (based on sentinel sites at antenatal care clinics). Assuming that about one-third of infected mothers transmit the virus to their newborns and that 90% of these children will die from AIDS or complications related to AIDS before they reach the age of 5 years, it can be estimated that about 12% of under-5 deaths can be attributed directly or indirectly to HIV/AIDS. Studies have shown that 83-94% of deaths in HIV-infected children are due to pneumonia, and most of the remainder are due to diarrhoea and other conditions. One percent of under-5 mortality may thus be attributed to AIDS itself, and HIV/AIDS may be included as contributing to 11% of under-five deaths.

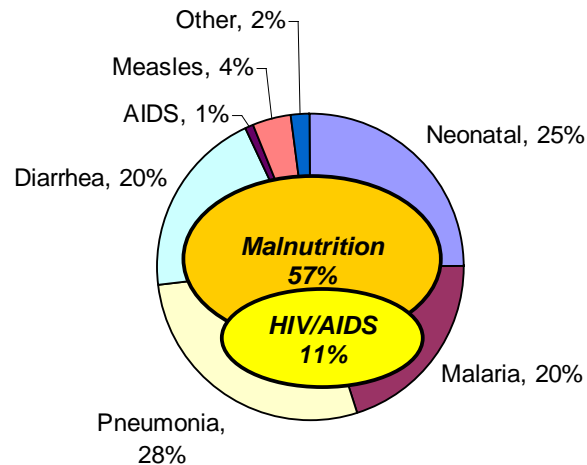
On the basis of available information, the proportions of attributable causes of under-5 mortality have been estimated as follows: pneumonia 28%, neonatal complications 25%, malaria 20%, diarrhoea 20%, measles 4%, AIDS 1% and others 10%.

Not explicitly included in the above calculations is the mortality contribution of malnutrition. Malnutrition is thought to underlie about 57% of all under-5 deaths, and perhaps more due to

¹⁴ FDRE MOH 2004, Health and Health-related indicators

the high prevalence of malnutrition among HIV-infected children. Other than in times of famine, malnutrition is not commonly recorded as a primary cause of death. Instead, it exerts its influence primarily through the exacerbation of other causes, such as diarrhoea or pneumonia, death from which can be reduced by nutrition interventions such as breastfeeding and complementary feeding. It is reasonable to expect that the wide-scale implementation of interventions aimed at reducing malnutrition would reduce the risk of mortality for about 274,000 under-5 children each year.

Figure 5: What are children dying from?



Source: Ethiopia Child Survival Situation Analysis 2004

On the basis of these proportions of attributable mortality it is estimated that each year in Ethiopia 132,160 children die from pneumonia, 118,000 from neonatal complications, 94,400 from malaria, 94,400 from diarrhoea, 18,800 from measles, 4,720 from AIDS and 9,440 from other causes.

2.3.6 Preventable Mortality

How many of these deaths can be prevented? It has been estimated¹⁵ that with 99% coverage of interventions currently available and for which there is sufficient evidence for effect in prevention or treatment it would be possible to prevent:

- 65% of deaths due to pneumonia
- 55% of deaths due to neonatal complications
- 91% of deaths due to malaria
- 88% of deaths from diarrhoea
- 100% of deaths from measles, and
- 48% of those due to AIDS

Table 3 summarises the situation on preventable mortality. It includes only those conditions which directly cause death. As stated above, malnutrition is the underlying cause for about 57% of these deaths and HIV underlies about 11 percent.

¹⁵ Jones G. et al., Lancet 2003, 362:65-71

Table 3. Annual preventable under-5 deaths in Ethiopia

Condition	% Attributable mortality	Attributable deaths	% Preventable deaths	Preventable deaths
Pneumonia	28	132,160	65	85,904
Neonatal conditions	25	118,000	55	64,900
Malaria	20	94,400	91	85,904
Diarrhoea	20	94,400	88	83,072
Measles	4	18,880	100	18,800
AIDS	1	4,720	48	2,266
Other	2	9,440	0	0
Total	100	472,000	72	340,806

2.3.7 Determinants of Childhood Mortality

There are significant variations in mortality by socio-economic determinants. The U5MR for the poorest 20% of the Ethiopian population is 32% higher than that for the richest (20%). Poverty not only affects food supply and access to health care but it is also linked to higher fertility rates, which in turn is associated with the spiral of poverty. The U5MR for children who live in rural areas is 30% higher than that for children who live in urban areas.

Maternal education is a major determinant of child survival, influencing care-seeking, morbidity and nutritional status. Only 34% of adult Ethiopian women are literate, compared with 49% of men, and 20% fewer girls than boys enrol for primary school. The U5MR for children whose mothers have no schooling is 121% higher than those whose mothers have at least a secondary education.

Maternal fertility characteristics also affect child mortality. The under-5 mortality rate for children whose mothers were less than 20 years of age when they gave birth is 225/1000, versus 179 for children whose mothers were in their twenties. Children whose birth order is seven or higher have a mortality rate of 196/1000, compared with 177 for those born second or third (first-born children have the highest rate: 225/1000). In 2000, 66% of women 30-34 years of age had had their first child when they were less than 20 years old, and 18% of this group had had seven or more children.

Children for whom the preceding birth interval was less than two years had a mortality rate of 272/1000, compared with a mortality rate of 96 for whom the interval was four or more years. While the effect may be reduced by controlling for other socio-economic determinants (e.g. education) and death of the preceding child, it is likely that birth intervals play an important role in determining childhood mortality in Ethiopia. In 2000, the median birth interval was 34 months, and 20% of all preceding birth intervals were less than two years.

About 28% of Ethiopian families have access to adequate and safe water, and 11.5% have access to excreta disposal¹⁶. There is ample evidence that access to adequate and safe water and sanitation can influence child mortality and, therefore, these major determinants must be addressed in developing sustainable preventive interventions.

¹⁶ FDRE MOH, PPD, Health and Health Related Indicators, 1995

CHAPTER III

THE HEALTH SYSTEM

3.1 National Health Plans

3.1.1 The Health Sector Development Programme (HSDP)

The shape of the present health system is determined by the HSDP. HSDP I was launched in 1997-98 to translate the Government's health policy statement into action. The programme covered the period 1997/98–2001/02. It put disease prevention at the centre of its reorganization of the health service delivery system. It had eight components that were to result in a fully integrated delivery system at the local level. Its major priorities were to expand and rehabilitate the network of primary health care units (PHCU), to upgrade and expand district hospital facilities and to promote equity by focusing on rural parts of the country.

HSDP I had support from the highest Government levels and all major donors. Its objectives were to:

- Increase access to health care (and thus utilization) from 40% to 50-55%
- Improve service quality through training and an improved supply of necessary inputs
- Strengthen the management of health services at federal and regional levels
- Encourage participation of the private sector and the NGO sector by creating an enabling environment for participation, coordination and mobilization of funds.

Although it did not contain an explicit child survival Strategy, HSDP I did focus on the need for improved primary care and addressed all primary child survival interventions. Major causes of mortality and morbidity in children were to be addressed, including malnutrition, promotion and the use of ORT and continued feeding during diarrhoea episodes, standardized case management for childhood illnesses, vitamin A supplementation for under-fives and growth monitoring for children under 3 years of age.

Outreach activities were to be the foundation of much of this work. Implementation was primarily based on the PHCU. HSDP I identified a minimum package of health services. The preventive services included EPI/plus, micronutrients, school health, IEC, and AIDS prevention. The clinical care services included IMCI case management, safe motherhood, TB, leprosy and STI treatment.

The mid-term review of HSDP I conducted in February 2001, along with three consecutive Annual Review Meeting (ARM) and World Bank reports, identified a number of generic and operational problems:

- Although there was an enormous increase in the number of Health Posts and expansion of Health Centres, utilization of these services did not match this expansion.
- Immunization rates except polio declined. There was no budget line item for immunizations in the regional budget, with full reliance being placed on budget subsidies from donors.

- HSDP had limited impact on the delivery of basic maternal and child health care and made slow progress in implementing child health activities.

The overall lack of staff capacity in terms of numbers and skills meant that many new facilities were under-staffed and the quality of care suffered. The preference for curative services by professionals, the public and decision makers at all levels meant that little attention was given to disease prevention and health promotion. There was frequently a lack of essential medical equipment and essential drugs in facilities, contributing to low demand and perceived low quality of care.

Slow budget approval, disbursement procedures and inadequate budget at health facility level had been a problem. In general, funds allocated for health were inadequate to meet program objectives or decision makers' expectations.

3.1.2 Health Sector Development Programme II

HSDP II is an extension of HSDP I, with a sharper focus on prevention and control of communicable diseases. The overall goal of HSDP II is to improve the health status of Ethiopians but with a re-focus on poverty-related diseases. It expects to achieve this goal through development and implementation of the Health Services Extension Program (HSEP) (see page 41-42) aimed at effective prevention and control of communicable diseases with active community participation.

HSDP II does not have an explicit under-5 mortality objective nor does it directly address the child mortality MDG, since its time horizon is only three years. It does, however, have a number of interim targets that should lower under-five mortality. The main child survival-related targets of HSDP II for the period (2002/03-2004/05) are:

- Reduce infant mortality from 97 to 85 per 1000 live births
- Reduce maternal mortality from 500-700/100,000 live births to 400-450/100,000 live births
- Increase health care coverage from 52% to 65%
- Increase EPI (DPT3) coverage from 50% to 70%
- Increase contraceptive prevalence rate from 18.7% to 24%
- Expand IMCI implementation to 80% of health facilities
- Slow the construction of health facilities and focus on improving the quality of care and availability of essential supplies and other inputs
- Implement a Health Extension Package on a pilot basis using existing PHC workers
- Train, deploy and motivate an adequate number of technical and managerial health workers
- Strengthen management of health services at the Woreda, regional and national level
- Create an enabling environment for private and NGO partners in service delivery, and coordinate and mobilize health resources.

HSDP has two levels of governance: the Central Joint Steering Committee (CJSC) and the Regional Joint Steering Committee (RJSC) with a Programme Implementation Manual (PIM) that was jointly approved by the Government and the health donor community.

There is a plan to expand this governance to the Woreda level. Within the health sector primary responsibility for service delivery and management is devolved to Regional Health Bureaux since the outset of HSDP I and, since 2003, to the Woreda level. The primary

objective of the political, administrative and economic decentralization policy to Woreda level is to increase local decision making and participation. Decentralization aims to strengthen ownership in the planning and management of social services (health, education) to improve efficiency in resource allocation, and to improve accountability of government and the public services to the population.

3.1.3 Accelerated Expansion of Primary Health Care Facilities in Ethiopia

Within the context of HSDP II the FMOH has developed a draft project proposal for an accelerated expansion of PHC facilities in Ethiopia for the period 2005-2009.

The project proposes to address the supply problem of the health care system through an accelerated expansion of PHC services. Both accesses to facilities and the availability of modern health care in a way that effectively reduces physical distance between PHC facilities and health care users. The proposal aims to accelerate physical infrastructure expansion as a base for improving access to basic health care services in rural Ethiopia. It is also proposes to enhance the health care system inputs towards the achievement of the MDGs.

In order to achieve universal coverage, (defined as availability of functioning PHC facilities to 85% of the rural population), by the end of 2009, the proposal calls for the construction and equipping of 3,118 Health Centres and 12,249 Health Posts. This involves the construction of 563 new Health Centres and upgrading of 2,167 health stations to Health Centres, and the downgrading of 135 health stations to Health Posts.

The expansion of health infrastructure also calls for an increase in the number of health professionals and supervisory staff. Based on the current standard staffing pattern, 13 health professionals and 12 administrative staff will be required for each Health Centre, while Health Posts will each require two Health Extension Workers. This means that over the period of the project 35, 516 health professionals and 32,760 support staff are required for Health Centres and 24,498 HEWs will be needed for the Health Posts. This will require expansion and coordination of health provider training (in addition to the 2,800 HEWs trainees currently enrolled, the schools will produce 6,000 HEWs a year), and the development of appropriate policy for staff retention.

The total investment required for the proposed expansion over the 5-year period is estimated at approximately USD 1.2 billion. The estimated total recurrent cost of the expansion over the period of the project is around USD 456.5 million. This means that of the total budget of USD 1.64 billion, 72% is investment cost and 28% is recurrent cost.

It is expected that 72% of total investment cost financing requirement of USD 1.2 billion will be borne from external sources.

The project proposal does not quantify the number of additional Hospitals needed or the recurrent cost implication of various programmes and services that are expected to follow the proposed expansion of PHC facilities.

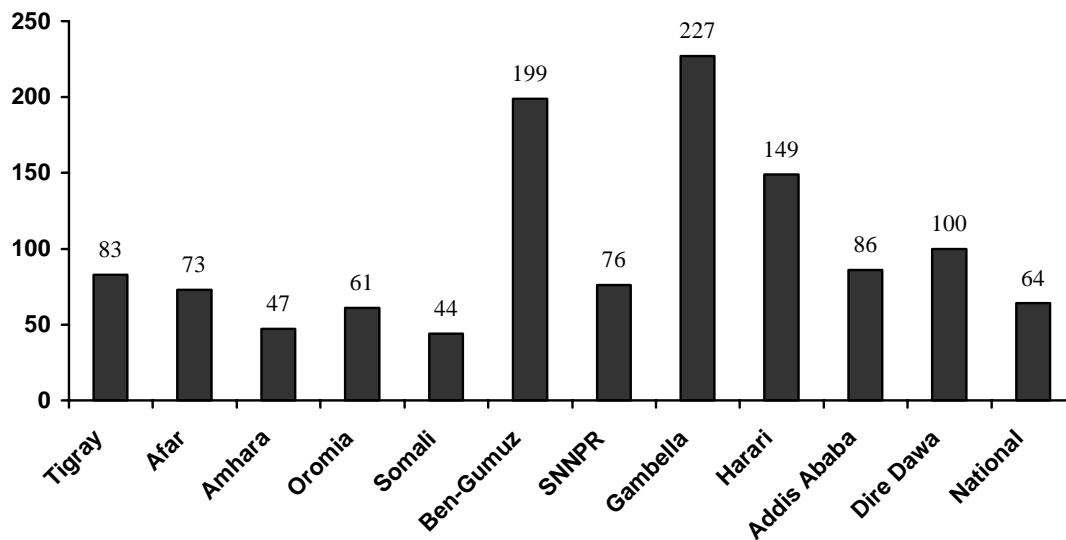
The major emphasis of the proposal is equitable geographical location and allocation of PHC resources within the framework of decentralization and health care administration.

The FMOH will be responsible for the overall planning, coordination and supervision while Woreda Health Offices will be responsible for the actual implementation on site.

3.2 Health Care Coverage

Access is improving but it is still too low. In 2002-03, coverage was estimated at 51.0%. Access is defined as residence less than 10kms from a health facility. It is not actually measured, but is calculated on theoretical catchment areas (e.g., 25,000 catchment area per Health Centre and 5,000 per Health Post).

Figure 6. Potential health service coverage



Source: Health and Health Related Indicators, FMOH, 2003-4

Pastoralist communities, which represent about 10% of the population, are mobile and seasonally change their residence. They are especially difficult to reach with traditional facility-based health services.

3.3 Human Resources for Health

Although the situation has improved in recent years, the shortage of suitably trained human resources is a persistent barrier to the effectiveness of the health system. The failure of HSDP I to increase utilisation of health care was in part due to the absence of staff in many facilities.

The distribution of personnel is uneven, with some of the larger regions being particularly depleted.

Table 4. Population per health worker 2003

Region	Population	Physician	Nurse	Health Assistant	F.L.H** worker
Tigray	4,006,008	28,614	3,278	4,527	1,235
Afar	1,301,001	52,040	6,051	21,683	11,000
Amhara	17,669,006	60,718	11,092	14,483	23,857
Oromia	24,395,000	60,385	9,638	11,534	66,733
Somali	4,002,000	72,764	12,314	35,105	18,521
Benishangul	580,000	14,500	2,886	5,979	5,800
SNNPR	13,686,002	44,148	8,240	12,155	27,511
Gambella	228,002	12,667	1,443	5,846	5,538
Harari	178,000	3,179	886	2,871	5,952
Addis Ababa	2,725,002	13,164	3,303	7,115	102,800
Dire Dawa	357,000	7,596	2,606	5,328	36,666
	69,127,021	25,958*	4,882	10,083	13,262
WHO standard		1:10,000	1:5000		

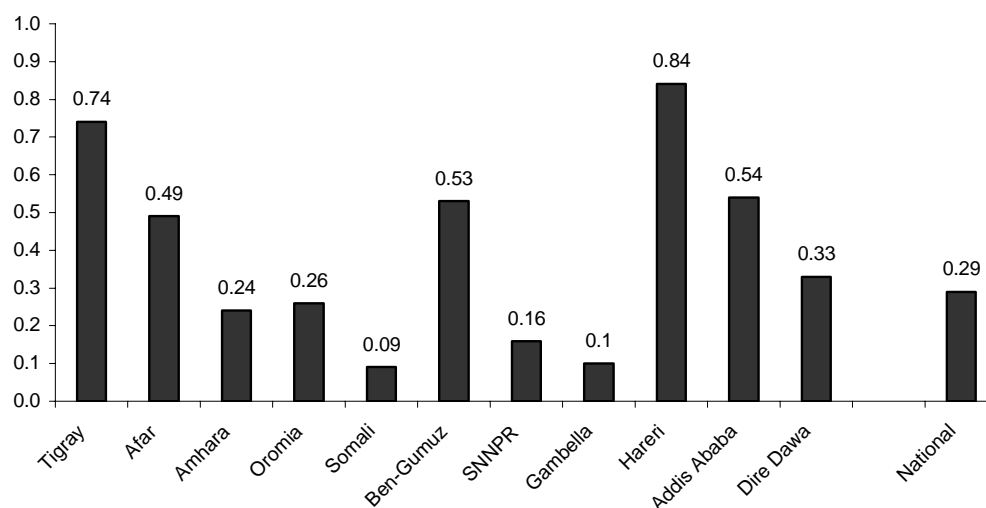
* Includes 631 health officers; ** Front Line Health Worker
Source PPD MOH, Health and Health-Related Indicators 1995

As shown above, the predominantly rural regions, which are also ranked lowest in terms of the development indices, fare worst. The most populated regions also have low health personnel to population ratios. The regions are particularly short of nurses and health assistants. Tigray has the largest number of front line workers because of its emphasis on community-based health care.

3.4 Utilisation of Health Services

Although there is variation among the regions, utilization of services continues to be poor despite the achievements in increasing access to health facilities. The overall rate for outpatient visits is 0.29 visits per year.

Figure 7. Annual outpatient visit per capita

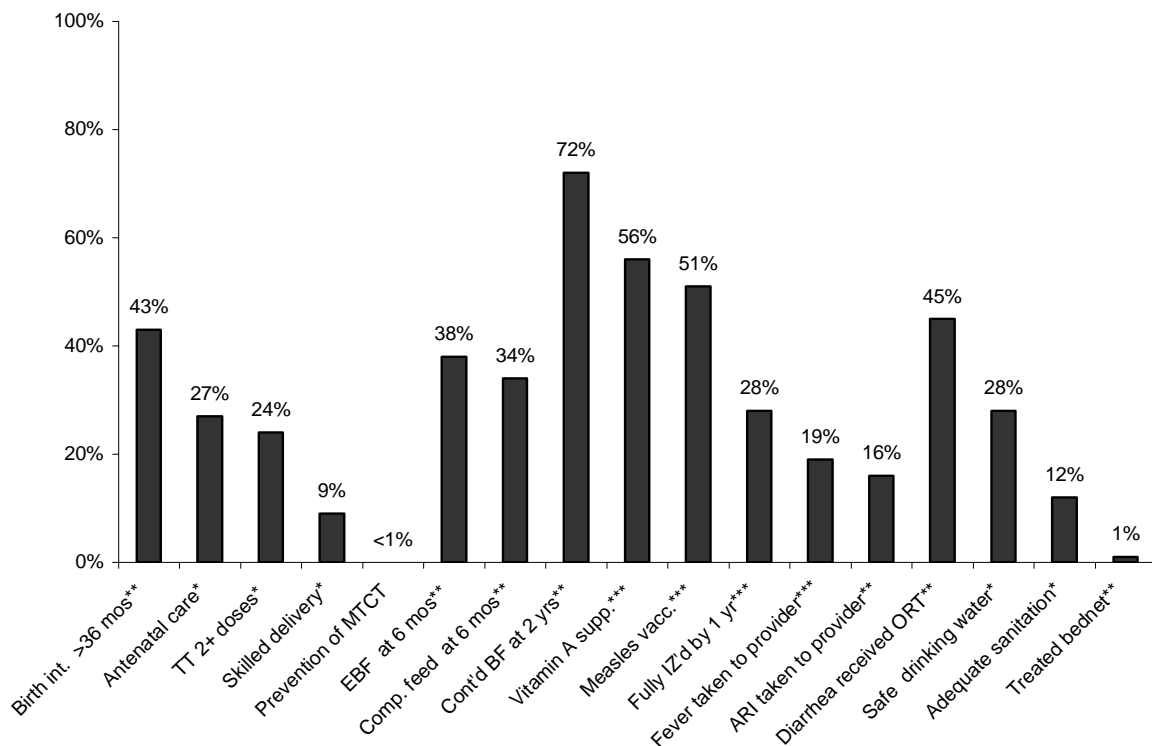


Source: FDRE MOH, 2002-03

The figure below summarises the utilisation rates of key child survival interventions. Antenatal and skilled delivery care, full series immunization by one year of age, care-seeking for important childhood diseases, bednets and the availability of water and sanitation are all strikingly low, reflecting the current pattern of child mortality. On the other hand, the rate continued breastfeeding is encouraging.

The achievement of a rapid and deep fall in child mortality will depend on these interventions being universally available and used. This will require action at all levels of the health system, starting with the community. Practical cooperation and collaboration is needed with the sectors concerned with education and water supplies.

Figure 8. Coverage of key child survival intervention



* FDRE MOH Health Indicators, 2002-03

** Ethiopia DHS, 2000

*** Immunization Coverage Survey, 2001

3.5 Health Care Financing

The health services in Ethiopia are financed from four main sources:

- Government (both federal and regional)
- Bilateral and multilateral donors (both grants and loans)
- Non-governmental organizations, and
- Private contributions, both from out-of-pocket payments and through private sector investment in health services

3.5.1 Total Health Expenditures

According to the second National Health Account (NHA), conducted using 1992 EFY data, the total health expenditure in EFY 1992 was estimated to be ETB 2.9 billion (355.5 million USD). The first NHA conducted using EFY 1988 data estimated the total health expenditures at ETB 1.45 billion or 230 million USD. The per-capita health expenditure has increased by about one dollar from 4.5 USD to 5.6 USD per person per year between the two time periods.

Although the share of GDP allocated to health, at 5.5%, compares reasonably well with other low income countries, the per capita expenditure remains one of the lowest in the world and significantly lower than the US\$12 that is the average among sub-Saharan African countries. The global estimate of the minimum per capita expenditure for effective health care in developing countries is US\$34.

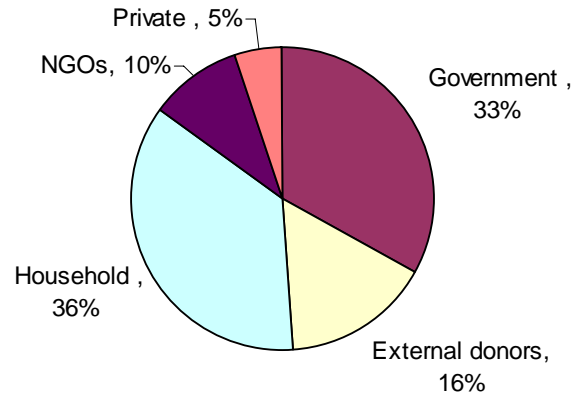
Without considerable increases in health financing in Ethiopia, combined from all sources, it will be difficult to effect major improvements in child health. This include making full use of the willingness of families to contribute financially to health care,

Table 5. Total and per capita health expenditure by major source classifications, 2000

Source	Amount in Birr	Amount in USD	Per capita USD	Percent
Government	978,960,122	118,731,993	1.87	33%
Bilaterals & Multilaterals	471,443,092	57,178,404	0.90	16%
Households	1,057,826,612	128,297,219	2.02	36%
NGOs (local and international)	290,082,327	35,182,285	0.55	10%
Private	132,849,569	16,112,499	0.25	5%
Total	2,931,161,723	355,502,340	5.60	100%

Source: Ethiopia's second NHA draft report, 2003

Figure 9. Health care expenditure



Source: Ethiopia's second NHA draft report, 2003

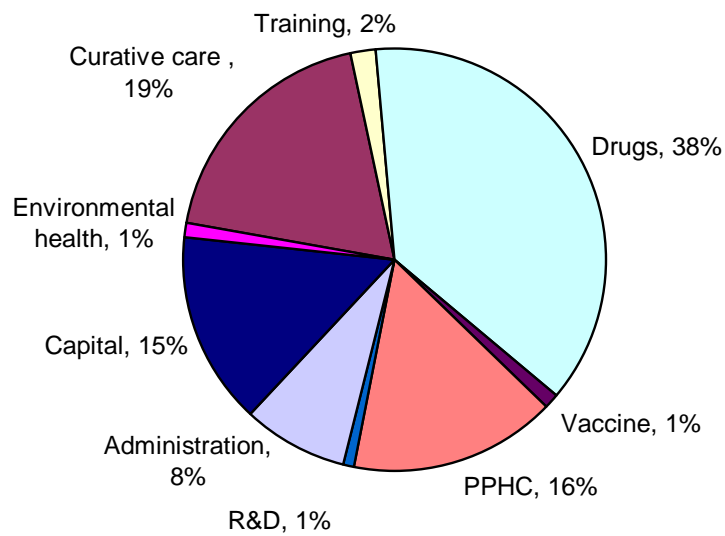
The major source of funding for health in 2003 was households, which account for 36% of total health expenditures, but their proportional contribution has significantly declined from about 53% in 1992. Government financing from taxes, general revenue and loans stands next, covering 33% of total health expenditures. Bilateral and multilateral assistance comes third with 16%. Since financing from donors mostly comes through the government, the second round shows that about 50% of health expenditures are financed from public sources. The share of NGOs has also increased to about 10% from the previous 7%. In terms of per capita expenditures, households spend \$2.02, government \$1.87, donors \$0.90, NGOs \$0.55 and the private sector \$0.25 USD per person per year.

3.5.2 Functional Distribution of Expenditures

Health expenditures are dominated by curative care. Pharmaceuticals consumed about 39% of total health expenditures. Curative care services took about 19% of total expenditures. Non-vaccine pharmaceutical expenditures and increases the share of curative care to about 57% of total expenditure.

Overall, expenditure on primary health care accounted for about 16%. Including vaccines, sanitation, and environmental health functions that are categorized under 'health-related', the share increases to 18%. The share of health administration stands at a reasonable level of 8%.

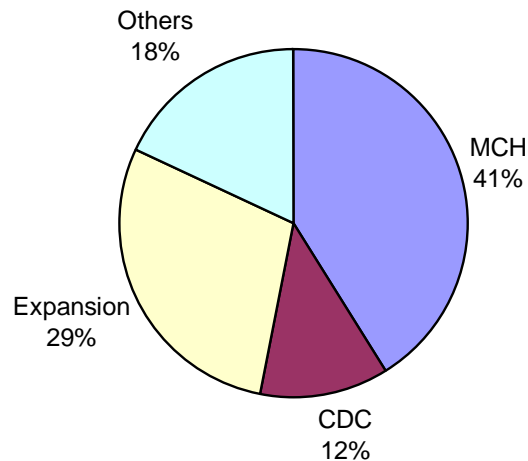
Figure 10. Government health expenditure



Source: Ethiopia's second NHA, draft report, 2003

A breakdown of expenditure on PPHC shows that in FYE1992, about 41% was spent on mother and child health, while 29% was used for expansion of primary health care and 12% for controlling communicable diseases. Other services like IEC, non-communicable disease control, sanitation and environmental health together consumed 18% of resources.

Figure 11. Breakdown of PHC expenditures



Source: Ethiopia's Second NHA, Draft Report, 2003

CHAPTER IV

OPPORTUNITIES AND CHALLENGES FOR THE CHILD SURVIVAL STRATEGY

4.1 The Government Priority

The Government of Ethiopia has given high priority child survival interventions. This decision has been taken in a context which strongly supports such action. Not only is there powerful international support, but also recent developments in the health and health-related sectors in Ethiopia can provide the practical means for implementing a successful Child Survival Strategy.

Achieving the MDG 4 for child survival in Ethiopia demands focused and coordinated action to improve nutrition, to strengthen health systems, and to reduce inequities in access to effective interventions against the diseases which kill young children.

The Strategy to achieve the MDGs must take advantage of existing opportunities and address the challenges which may hinder implementation.

4.2 Opportunities

- Solid national and international commitment to achieving the child survival MDGs, The issue of child survival is seen as “unfinished business” that must be tackled without delay.
- Growing partnership between government, partners and private and non-governmental organisations for child survival in Ethiopia.
- Increased funding available from national government and donors.
- Existence of close links between the Sustainable Development and Poverty Reduction Program (SDPRP) and the Health Sector Development Programme (HSDP II). SDPRP focuses on reduction in poverty and the health problems that either result in poverty or are the result of poverty. HSDP II is incorporated as the *de facto* health component of SDPRP. Maternal and child health is the major focus of both HSDP II and SDPRP.
- Decentralisation of authority for planning and implementation of health services to the Woreda Health Office
- Recent introduction of the Health Extension Programme as an innovative health delivery system to reach the grass roots level. Present plans see this programme expanding fast and achieving not only important changes in community health behaviour on a large scale but also almost universal access to basic services over the coming 5 years. FMOH plans for rapid expansion of human resources and health facilities beyond the HSDP II objectives
- Availability of and experience with high impact, low cost interventions to address the major causes of child mortality
- Existence in-country of experienced programmes relevant to child health, including EPI/plus, IMCI, Nutrition and Malaria Control
- Plans for expansion of higher education and the training of large numbers of health professionals

- Increased opportunities for education for girls and women
- New civil service reform launched.

4.3 Challenges

- The health system is generally weak in relation to the health needs of the country
- The coverage and utilisation of essential programmes is very low, with wide regional variation
- There is limited access to health services with a widespread shortage of skilled human resources and supplies.
- Basic and undergraduate training of health staff contains too little practical experience
- Supervision, monitoring and evaluation are very weak
- Lack of motivation of health workers at all levels
- Regional and Woreda health offices are short of staff and management capacity.
- Decentralisation is in progress but there are widespread problems of information flow, inadequate management and accountability.
- Health information system is weak, making planning, monitoring and response difficult at all levels.
- The role of women in the society is underestimated, and women are not fully empowered to take responsibility

CHAPTER V

TARGET CONDITIONS AND KEY HIGH IMPACT INTERVENTIONS

5.1 Target Conditions

The discussion of child mortality in Chapter II shows that 90% of child mortality in Ethiopia can be attributed to five conditions:

Pneumonia
 Neonatal causes (low birth weight, sepsis and asphyxia)
 Malaria
 Diarrhoea
 Measles
 ...and two underlying conditions:
 Malnutrition
 HIV/AIDS

These conditions are the same as those published in the June 2003 Lancet series, although the proportion of mortality that can be attributed to each direct cause differs in some respects.

The table below shows the percentage of deaths of children under five that can be attributed to each target condition. Column (1) uses the best available estimates drawn from Ethiopian data. Column (2) shows the estimates made for Ethiopia in the Lancet publications.

Table 6. Target conditions and percentage of attributable mortality

Condition	(1) % Attributable mortality from the Ethiopian data	(2) % Attributable mortality, from Lancet estimates
Pneumonia	28	28.2
Neonatal conditions	25	24.7
Malaria	20	4.0
Diarrhoea	20	23.9
Measles	4	2.2
AIDS	1	6.2
Other	2	11.5
Total	100	100

The pattern of child mortality in Ethiopia is similar to that represented in the 42 countries represented in the Lancet studies, with one important exception. Incidence and mortality from malaria are high in about 70% of Ethiopia. According to health facility records, which are the only source of such data, malaria accounts for 21% of infant mortality, making it the third highest cause of death in this age group, after pneumonia and neonatal causes. A baseline survey for Roll Back Malaria in 2001 estimated that 28% of under-five mortality was attributable to malaria. Taking account of the limitations of these data, it may be reasonable to attribute 20% of under-five mortality to malaria, five times that used for the model which generated the Lancet estimates.

5.2 Key Interventions

The Child Survival Strategy will achieve its objectives by ensuring the effective implementation of a limited number of interventions to address these target conditions. The recent Lancet papers on child survival proposed a list of interventions which have been shown by strong scientific evidence to be effective in reducing child mortality. The Ethiopia-specific interventions for the Child Survival Strategy took this list into account. The criteria for selection included the country's epidemiological profile, health policy, current health programmes and available resources.

The interventions give emphasis to preventive and promotive approaches to reduce exposure to infection or reduce the likelihood that exposure leads to disease. In addition, preventive and clinical care interventions are included that will reduce the likelihood that the disease or condition will lead to death. The Strategy also includes the use of antibiotic treatment for pneumonia and neonatal sepsis, which are both major causes of mortality in under-five children.

Table 7 below has been prepared using the Marginal Budgeting for Bottlenecks (MBB) model. It shows the selected key child survival interventions in column 1. Column 2 shows the estimated baseline coverage for each intervention. Column 3 shows the coverage that is targeted for each intervention by 2009. The target coverage for each intervention by 2015 is shown in column 4. The fifth column shows the reduction in the under-five mortality that should be achieved by reaching the 2015 coverage target. The assumption is made in this model that the achievement of a coverage target implies that the operational bottlenecks have been overcome.

Table 7. Key high impact interventions, coverage, and impact in mortality reduction

	Delivery modes	Key Interventions	Coverage			Reduction in U5M*		Reduction in MMR **		
			Baseline	2005/06-2009/10	2010/11-2014/15	2005/06-2009/10	2010/11-2014/15	2005/06-2009/10	2005/06-2009/10	
Health Services Extension Program	1. Family/Community based Care	Clean delivery	10%	60%	85%	2%	2%	0.3%	0.32%	
		Temperature management and KMC	10%	40%	70%	0.3%	0.3%	0.0%	0.0%	
		ITN for pregnant women	2%	49%	75%	0%	0%	0.6%	0.9%	
		Exclusive breastfeeding 0-6 months	38%	63%	80%	3%	4%	0.0%	0.00%	
		Breastfeeding 6-11 months	75%	80%	85%	0%	0%	0.0%	0.00%	
		Wat/San/Hygiene	10%	63%	67%	3%	3%	0.0%	0.00%	
		ITN for U5 children	2%	63%	75%	9%	11%	0.9%	1%	
		Complementary feeding	34%	63%	67%	3%	4%	0.0%	0%	
		ORT	13%	68%	78%	8%	9%	0.0%	0%	
		Zinc for diarrhoea management	0%	25%	55%	1%	1%	0.0%	0%	
		Supplementary feeding for malnourished children	0%	51%	65%	3%	4%	0.0%	0%	
		Supplementary nutrition for malnourished pregnant women	0%	51%	65%	1%	1%	0.0%	0%	
		Anti-malarial	17%	49%	75%	3%	1%	0.0%	0%	
		2. Population oriented outreach services	Family planning	9%	45%	65%	4%	6%	4.3%	6.7%
			Tetanus toxoid	17%	59%	71%	1%	1%	0.4%	0.5%
			Folate supplementation in pregnancy	6%	52%	66%	0%	0%	0.0%	0.0%
			Routine DPT3/Measles immunization	28%	90%	90%	2%	2%		
			Vitamin A – sup	30%	75%	85%	7%	10%	0.0%	
			Hib vaccine	0%	90%	90%	5%	5%	0.0%	
		3. Clinical Care	Delivery by skilled attendant	6%	53%	64%	3%	4%	4.3%	5.3%
	PMTCT: Nevirapine		1%	25%	45%	0%	0%	0.0%	0.0%	
	Antibiotics for PROM		3%	3%	40%	0%	0%	0.0%	0.2%	
	Antibiotics for pneumonia		20%	50%	85%	3%	7%	0.0%	0.0%	
	Vivax malaria treatment		14%	40%	80%	2%	2%	0.2%	0.3%	
	Antibiotics for dysentery		14%	40%	70%	0%	0%	0.0%	0.0%	
	Neonatal resuscitation		6%	30%	70%	1%	2%			
	Treatment for Iron deficiency in pregnancy		5%	40%	80%	0%	0%	0.0%	0.0%	
	Anti-malarials (ACT)		0%	50%	75%	6%	9%	0.8%	1.1%	
	Ampiciline/gentamycin for neonatal sepsis		6%	40%	80%	1%	4%			
	Management of complicated Malaria		1%	20%	50%	3%	7%			

* Please note that the impact figures (reduction in U5M and Maternal mortality) at the bottom of the different delivery modes and the overall total are not simple mathematic sums as the impact of interventions is interlinked with one another in the MBB Tool.

5.3 Impact of Key Interventions Towards Achieving the Child Health MDG

The MBB model also calculates the overall reduction in under-five mortality to be 48% in the first phase and a total of 61% over the two phases (Table 8). This reduction is sufficient to achieve the MDG 4 target which is 52% reduction from the current level (140/1000).

Table 8. Summary of mortality reduction and marginal cost by service delivery mode

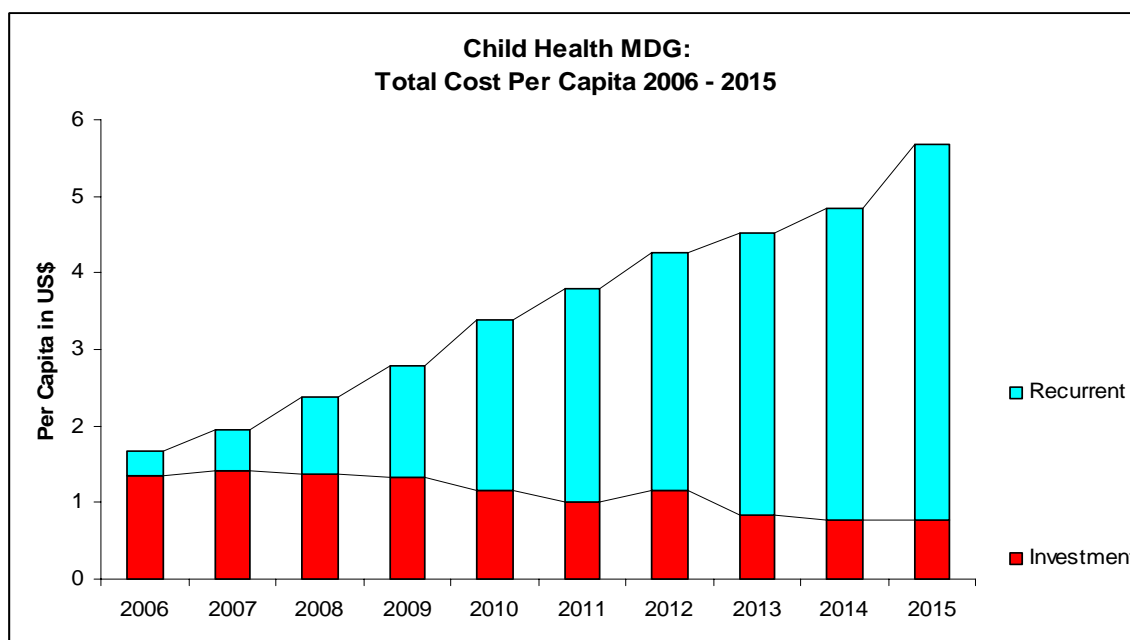
Service delivery mode	U5M reduction		MMR reduction		MC per capita /year (in US\$)		Average MC per capita/year (in US\$)
	2005/06 - 2009/10	2010/11 – 2014/15	2005/06 - 2009/10	2010/11 – 2014/15	2005/06 - 2009/10	2010/11 – 2014/15	
Family community based care	27%	32%	1.8%	2.6%	0.83	1.72	1.27
Population based outreach services	11%	15%	4.7%	7.2%	1.04	1.26	1.15
Clinical based care	15%	28%	17.4%	30.2%	0.56	1.65	1.10
Total *	48%	61%	22.6%	36.8%	2.43	4.62	3.53

MC = Marginal Cost

* Please note that the total impact figures in reduction of U5M and Maternal mortality at the bottom row are not simple mathematic sums as the impact of interventions is interlinked with one another in the MBB Tool.

**Table 9. Child Survival and MDG, Total cost per capita per year (2005- 2015)
(US Dollars)**

3 modes of service delivery										
	2005/06-2009/10					2010/11-2014/15				
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Investment	1.35	1.41	1.38	1.33	1.16	1.01	1.16	0.83	0.78	0.78
Family/ community	0.41	0.41	0.33	0.33	0.16	0.16	0.26	0.16	0.03	0.03
Outreach	0.77	0.77	0.77	0.77	0.77	0.57	0.34	0.11	0.06	0.06
Clinical	0.17	0.23	0.28	0.23	0.23	0.28	0.56	0.56	0.69	0.69
Recurrent	0.32	0.53	1.00	1.45	2.22	2.79	3.11	3.69	4.07	4.89
Family/ community	0.19	0.24	0.48	0.67	0.95	1.04	1.25	1.67	1.88	2.09
Outreach	0.05	0.11	0.27	0.37	0.53	0.92	1.03	1.03	1.03	1.15
Clinical	0.07	0.18	0.26	0.41	0.74	0.83	0.83	0.99	1.16	1.65
Grand total	1.67	1.94	2.38	2.77	3.38	3.80	4.27	4.52	4.85	5.67



Target condition	Key intervention
<p>Diarrhoea <i>Prevention/promotion</i></p> <p><i>Clinical care</i></p>	<ul style="list-style-type: none"> • Hygiene/sanitation/Safe water • Exclusive breast feeding • Adequate complementary feeding • Vitamin A supplementation • Vaccination against measles, PMTCT • ORT/ORS • Antibiotics for dysentery • Zinc treatment
<p>Malaria <i>Prevention/promotion</i></p> <p><i>Clinical care</i></p>	<ul style="list-style-type: none"> • Long-lasting Insecticide treated bed nets • Anti-malarial drugs
<p>Malnutrition <i>Prevention/promotion</i></p> <p><i>Clinical care</i></p>	<ul style="list-style-type: none"> • Breast feeding • Complementary feeding • Nutrition advice and supplementation • Vitamin A supplementation • PMTCT • Measles vaccination • Family Planning • Management of severe malnutrition • Vitamin A • Zinc • Nutrition advice
<p>HIV/AIDS <i>Prevention</i></p> <p><i>Clinical care</i></p>	<ul style="list-style-type: none"> • VCT • PMTCT+ • ART • Treating opportunistic infections

5.4 Bottlenecks

The tool Marginal Budgeting for Bottlenecks was developed by World Bank, UNICEF and WHO to identify bottlenecks to implementation and expansion of health services.

The planner can gain insight into their effects on the impact of interventions and can assess the cost and effect of eliminating them.

The results of an examination of the bottlenecks on the key interventions selected for the Strategy are summarised in the table below.

Table 11. Key interventions and identified bottlenecks

Key Interventions	Main bottlenecks identified
<i>MATERNAL AND NEONATAL CARE</i> Focused antenatal care Clean and safe delivery Neonatal care Newborn temperature management PMTCT Family Planning	Access to health facilities Shortage of skilled human resources at all levels, including community Lack of essential equipment and supplies Inadequate motivation of personnel Inadequate supervision
<i>NUTRITION</i> Optimum breast feeding Complementary feeding Vitamin A supplementation	Inadequate access to basic information Shortage of skilled human resources Inadequate motivation of personnel Low utilisation of services
<i>DISEASE CONTROL</i> Vaccination against measles and HiB Long-lasting ITN Safe water, sanitation and hygiene	Shortage of skilled human resources Inadequate supervision Inadequate motivation of personnel Logistical problems Lack of essential equipment and supplies Insufficient funding Poor management Lack of supplies Insufficient access Cost too high Lack of skilled human resources in the community Insufficient funding
<i>CLINICAL CARE</i> Diarrhoea Malaria Pneumonia Neonatal Sepsis	Limited access to health facilities Lack of skilled human resources Poor staff motivation Barriers to referral Shortage of essential drugs

Restrictions on *ACCESS* of people to health facilities necessarily limit the effectiveness of any intervention which depends on such facilities. In the Strategy, this will include maternal and neonatal care and clinical care for common conditions. Even though health promotion and prevention play a large role in these areas, the MDGs will not be achieved without facility-based services. The various barriers to referral include access to secondary facilities. For poor families, services may become inaccessible because of cost.

AVAILABILITY of adequate numbers of personnel, as well as supplies, medicines (including vaccines) and equipment are necessary for a service or facility to function adequately. Almost every key intervention is affected by problems of human resources. More personnel of different types will be needed at all levels of the health system to fill the existing gaps and to make expansion of services possible. Almost all interventions require some form of equipment or supply including those that focus on health education, promotion and prevention. Logistics is a major issue in many programme areas.

The *QUALITY* of care provided by a service is particularly determined by the skills of the personnel. The need to strengthen skills runs through all the selected interventions. This implies not only practical training but also supervision, support and whatever else is required to achieve and maintain the motivation of health workers. Weaknesses in management are reflected in the quality of services. The ability of a health facility to refer a severely ill child is a measure of its quality.

The *UTILISATION* of services by people is a function of a range of factors. The quality of services affects the confidence people feel. The cost of drugs may prevent poorer families from utilising facilities.

For some interventions, such as immunisation and antenatal care, *CONTINUITY* is particularly important. For these interventions repeated visits are essential. Continuity of care-seeking or service provision is a function of access, quality and utilisation.

Taken together, quality, utilisation and continuity relate to the *DEMAND* for services. *ACCESS* and *AVAILABILITY* relate to the *SUPPLY* side of the service.

CHAPTER VI

THE CHILD SURVIVAL STRATEGY

6.1 Introduction

6.1.1 Objectives

The overall objective of the Strategy is to reduce under-five mortality to 67/1000 by 2015 (MDG 4); this being a reduction of two-thirds from the 1990 rate of 200/1000 and 52% reduction from the 2004 rate of about 140/1000.

Specific objectives are to:

- Reduce the neonatal, infant and child mortality rates proportionally in achieving the above stated objective.
- Ensure the availability of good quality essential health care for women and children in the community and health facilities
- Ensure the greatest possible reduction of mortality among the children of the poorest and most marginalized sections of the population.

The objectives achieved by ensuring high coverage levels of key interventions that address the major causes of maternal and under-five mortality in Ethiopia (see Chapter V).

6.1.2 Modes of Implementation

The long-term reduction of child mortality will depend on action in several sectors. The health sector can produce a rapid change by addressing specific causes of death, and this is the main focus of this Strategy. The underlying determinants of much of the mortality – such as the lack of education, the status of women in the community, the availability of adequate food and safe water are, however, beyond the direct influence of the health sector. The achievement and sustainability of reaching the Millennium Development Goals for the health of children will ultimately depend on the active cooperation of all the concerned sectors towards the common goal of improved child survival. This Strategy aims to strengthen this cooperation.

The Strategy is grounded in HSDP II, which aims to increase the effectiveness of the health system by improving the quality of care in communities and health facilities while simultaneously improving access to care by a moderate increase in the number of health facilities. World Bank calculations indicate that, even in the absence of major new investment, this is a realistic approach which could potentially reduce child mortality by one-third – a remarkable achievement, but well short of the 2015 MDGs.

The MOH is now planning accelerated expansion of PHC facilities and human resources to achieve 85% or more access of the population to staffed and equipped primary health care facilities by 2009, starting in 2005 (see Chapter III). The proposal aims at expanding basic health care services to rural Ethiopia, and to enhance the health care system inputs.

The Child Survival Strategy also aims to take advantage of this initiative to achieve the MDGs by ensuring that the key child survival interventions are delivered effectively by all levels of the expanded services.

6.1.3 Focus on the Community – The Health Services Extension Program (HSEP)

HSDP III focuses on preventive, promotive and basic health care at the household and community level and in Health Posts serving the community. The Health Services Extension Programme was developed to strengthen this approach (see Chapter III). These services are supported and complemented by clinical services delivered through the Health Centres and Hospitals.

The HSEP institutionalises the community health system. The Health Extension Workers (HEW) are intended to be the main change agents for health in the community. Their primary task will be to mobilize and empower households and communities to take responsibility for their own health by involving them in the planning and execution of community health activities and services. They will operate out of Health Posts and their work will be supervised by the District Health Office in collaboration with the Health Centre. Although the primary focus of their work will be prevention, HEWs will provide basic care for the most important causes of child mortality.

The Health Services Extension Program includes the curative care for children with diarrhoea and malaria in the community among the tasks of the HEW. This is important because preventive and promotive actions, particularly those that call for behavioural change, are often slow to take effect, and simple and safe treatment in the hands of trained workers can save lives in the interim. In addition, experience from Ethiopia and elsewhere shows that the credibility, and thus effectiveness, of health promotion and education is greatly enhanced if the health worker can offer care for illness on the spot, rather than advising families to carry ill children to a distant health facility – advice which is often difficult to follow and may be rejected. Children identified by HEW as having pneumonia or neonatal sepsis will be referred to the nearest health centre for treatment with antibiotics.

Achievement of the objectives of the Health Services Extension Program requires the input of all the MOH programmes and delivery mechanisms concerned with the health of mothers and children. These include EPI/plus, Malaria Control, IMCI, Essential Nutrition Actions, Maternal and neonatal care, Water, Sanitation and Hygiene and IEC. The essential community level actions of these programmes can be supported through the HSEP and supervised by the District Health Office.

The HSEP considers that HEWs are likely to be most effective when working in collaboration with other community-based workers, both to extend contact with families and the community and to bring to bear different skills. A model of the HSEP which trains and deploys Community Health Promoters (CHP) is being developed in some Regions like the SNNPR, Amhara and Oromia with support from various NGOs. Moreover, the HEW alone cannot be expected to implement all the activities mentioned in this strategy, therefore it is very important that they are supported by all types of community health works including TBAs, CHPs, CBRHAs and others. All the activities of different Community health works needs to be well coordinated, harmonised and appropriately led by the HEW.

6.1.4 Enabling the HSEP to Fulfil its Potential for Children

In principle, the HSEP offers to the Child Survival Strategy the necessary combination of community action, expanded access to services and improved linkages between the community services and the health facilities.

To realise this potential, the HEWs' tasks must be realistic both in scope and number and their training must be relevant to the tasks and be essentially practical HEWs must be provided from the outset with the equipment they need and reliable supplies of medicines, contraceptives and expendable materials. HEWs must be given full technical support from the Health Centre and supervised by the Woreda Health Office.

The Strategy will be applied in a wide variety of situations, and it is inevitable that adjustments will be necessary to meet changing needs and to ensure that the HSEP and other mechanisms for delivery of interventions are maximally effective. The Strategy envisages a dynamic process that will monitor the situation and respond to emerging needs by adapting approaches and delivery mechanisms. This will involve in some situations and at different times giving priority to some interventions and modifying some to make them more effective.

6.1.5 Strengthening and Scaling up Child Health Interventions

The Key Interventions of the Strategy are included in existing health programmes and are known to be efficacious. The aim of the Strategy is to ensure that they are carried out effectively and that they are made available as quickly and widely as possible.

Most of the Key Interventions are already included in the Health Services Extension Package (HSEP). The Strategy takes full advantage of the workers and delivery mechanisms of the HSEP, but other Government, NGO and private health programmes also have delivery mechanisms for child health in the community and in Health Centres and Hospitals. The Strategy will put in place mechanisms for coordination of the inputs of all concerned programmes in line with its objectives and approaches.

6.1.6 Linkage Within the System and the Roles of the Health Centre and the Hospital and Woreda Health Office

The health programmes that target the community and which are essential to the success of this Strategy are components of the broader health system. While the Strategy's interventions focus on the community, their success calls for coordinated action at all levels. Health Centres, in particular, have a crucial role to play in providing referral care, technical and practical support to the HSEP and other programmes working in the community. The district and other Hospitals similarly have an important role to play in support of the Health Centres and the community level.

The Woreda Health Office has an overall responsibility for coordination and guidance of the various health facilities in its catchments area.

6.1.6.1 The Health Centre

The Health Centre will fulfil three crucial roles in enabling the community level services and Health Posts to work effectively in reducing child mortality.

- *Support to outreach activities in the community*, particularly vaccination, antenatal care, IEC for health, and water and sanitation. The Health Centre has particularly important logistic, coordination and supervisory roles in EPI/plus, malaria and the clinical management of childhood illness.
- *Primary and referral care for sick children and pregnant women*. The Health Centre will give primary care to women and children from its own catchment population. In addition it will manage children referred from the Health Post with severe malaria, pneumonia, dehydration, malnutrition or other severe conditions, and women requiring emergency obstetric care. It will refer to Hospital those cases that are beyond its capacity. The Health Centre will also be responsible for VCT and for arranging PMTCT for pregnant women who come for primary or referred antenatal and delivery care.
- *Regular technical support of the HEWs and other CBHWs concerned with maternal and child health*. This will include on-the-job training and support to the monitoring of interventions and their outcomes.

Actions to strengthen the Health Centre

- The functions of the Health Centre will be planned to meet the needs of the communities they serve, including support to community-based interventions.
- The planned accelerated expansion of primary health care facilities and staffing will address some of the access bottlenecks.
- IMCI case management training should be included in the preparation of all clinical staff at the Health Centre. The required expansion and maintenance of training will require IMCI case management skills to be included in the basic training of all health workers concerned with the care of children.
- The expansion of community services is an opportunity for EPI/plus coverage to be increased rapidly. For the Health Centre to play its part well, staff must be retrained, equipment supplied and supervision strengthened. This will demand a re-emphasis in the Health Centre on EPI in planning, budgeting, equipment and support from all levels of the health service.
- Health Centres should have equipment and suitable trained staff to enable them to provide basic Emergency Obstetric Care.

6.1.6.2 The District Hospital and Higher Referral Hospitals

MBB calculations suggest that referral care can be expected to directly contribute little to the reduction in under-five mortality, but the Hospitals have three important roles beyond referral care which can improve the impact of child care on mortality:

- In principle, children come to district Hospitals by referral from more peripheral levels. In practice, Hospitals now also provide primary care service to the local population, in some cases on a large scale.
- The Hospital can be a centre for training and experience in clinical care, including IMCI, maternal and neonatal care and ENA. The hospital care becomes a centre of excellence for demonstration of best practices and for the support of more peripheral units in health care through training, supervision and follow-up.
- The Hospitals can become centres for operational research to address the needs of the child survival strategy at different levels.

Actions to strengthen Hospitals

IMCI case management training should be included in the training of all staff working with children. The WHO Guidelines on the Management of the Child with a Serious Infection or Severe Malnutrition to be made available to all Hospitals and Health Centres and used as the basis for case management and refresher training.

Emergency Triage and Treatment (ETAT) to be introduced in Hospitals through guidelines and training, to eliminate delays in the treatment of the most seriously ill children coming to the Hospital. Training to be given in maternal and newborn emergency care, including, operative interventions. Hospitals to be included in the planning process for expansion of the HSEP to explore ways in which they can provide support to community programmes, including the development of mechanisms for clinical supervision to the Health Centre and beyond.

6.1.6.3 The Woreda Health Office

The Woreda is the basic decentralized administrative unit and has an administrative council composed of elected members.

The development of decentralization in Ethiopia has brought responsibility, financial and human resources out to Woreda and Kebele levels. The respective health offices are responsible for planning, implementation, follow-up and evaluation of health services at their levels. This provides an opportunity to involve local government in the Child Survival Strategy at the community level.

Civil Service Reform has been working for the past two years to reinvigorate all sectors of the civil service, including the health sector. For example, in SNNPR their new performance/results orientation includes Woredas signing contracts with the RHB for the achievement of agreed targets: DPT3, family planning, latrine construction, Health Post

construction, outpatient visits and antenatal visits. Another example is that Kebele Administrators are in charge of monitoring EPI/plus coverage for the Reaching Every District (RED) strategy for meeting EPI/plus objectives.

These new opportunities need to be grasped by all stakeholders of the child survival movement.

There are significant weaknesses in the capacity of the Woreda Health Office to plan, implement and monitor services. With the plans for PHC expansion it becomes particularly important to correct these weaknesses.

Actions to strengthen the Woreda Health Office

- Strengthen management team to meet the demands of the PHC Expansion.
- Strengthen technical monitoring and supervision capacity of the Woreda Health Office
- Strengthen logistic support within the Woredas
- Develop of clearly defined structures and mechanisms of technical support from the RHB to the Woreda Health Office
- Ensure Kebeles are involved in the proper selection of HEW trainees to serve their communities and in their supervision

6.2 Activities Proposed for Each Intervention at Each Level

The Strategy is based on the implementation of the set of key high impact interventions described in Chapter V.

The following pages describe how these key interventions will be carried out in the community, at the Health Centre and the Hospital. Mechanisms for the strengthening and accelerating of each intervention are described.

6.2.1 Preventive and Promotive Care

6.2.1.1 Maternal and Neonatal Care

Focused antenatal care

Community/Health Post

The HEWs, with the TBAs, will promote antenatal care through community information and outreach.

They will provide basic focused antenatal care at the Health Post and through scheduled outreach for those women who have no detectable danger signs or medical complications. This will require four visits. At each visit:

- The pregnant woman is screened for health or socio-economic conditions likely to increase the possibility of adverse outcomes.

- Appropriate therapeutic and preventive interventions are given, including TT immunisation, iron and folate supplementation, early detection and treatment of malaria, use insecticide-treated net and nutritional advice.
- Women are counselled on planning for a safe birth, emergencies during pregnancy and how to deal with them. She is also advised on exclusive breastfeeding and family planning. When necessary, women will be referred to the Health Centre.

This intervention will require close liaison with the Health Centre, both to ensure successful referral care, if necessary, and to provide the necessary technical support to the HEWs and TBAs.

Health Centre

- Will provide technical support for the HEW and TBA.
- Will support outreach antenatal care from the Health Post.
- Will provide routine antenatal care..

District Hospital

- Will provide antenatal care to women in its immediate catchment area
- Will provide antenatal care to pregnant women referred from Health Centres, because of obstetrical or other medical risk factors

Newborn temperature management

Community/Health Post

- The HEW, with the TBAs, will promote prevention of hypothermia of newborns, through demonstration of home-based practices, in particular Kangaroo mother care.

Health Centre

- Will support the community and Health Post staff in neonatal care
- Will provide treatment of hypothermia including neonatal cold injury

District Hospital

- Will provide training and clinical experience for community and Health Centre personnel
- Will provide treatment of hypothermia and neonatal cold injury

Actions to strengthen and accelerate the interventions on antenatal care and neonatal care

- MPS team to give priority to community level antenatal care, ensuring support and supervision of HEWs.
- Include in HEW and TBA training the kangaroo mother care method for prevention and management of hypothermia.

HIV/PMTCT

Community/Health Post

The HEWs will work with the TBAs and other CBHWs to educate the community, families and couples before and during pregnancy about HIV/AIDS, including VCT. They will ensure contact with the Health Centre to enable testing and treatment.

The HEW will, in collaboration with the Health Centre, provide continuing advice and support on exclusive breast-feeding to mothers with HIV/AIDS, including safe transition to complementary feeding at six months.

Health Centre

Will provide VCT, and offer PMTCT+ with Nevirapine or other feasible HIV treatment to women with HIV and their at-risk infants, either referred from the community or presenting directly.

Will advise pregnant women and mothers with HIV on options for infant feeding.

Will support the HEWs in assisting in referral for VCT and PMTCT and in follow-up of women with HIV in the community and their infants.

District Hospital

Will provide VCT, PMTCT+ and ARV prophylaxis and treatment as required for women and children either referred from the community or Health Centre or presenting directly.

Will advise pregnant women and mothers with HIV on options for infant feeding

Actions to strengthen and accelerate PMTCT

- Health Centre staff should be trained and equipped for PMTCT and empowered to work closely with HEW and Health Post.
- Collaboration with HIV/AIDS programme and PMTCT to develop skills, approaches and educational tools for HEWs and other health workers.

Family planning

Community/ Health Post

The HEWs, CHPs and other CBHWs will mobilise the community and work with families to promote the use of contraception for child spacing and family size limitation.

Through scheduled outreach visits and at the Health Post, the HEW will supply modern contraceptives and injections of Depo-Provera.

Health Centre

Will support the Health Post outreach services for family planning.
Will provide family planning services.

District Hospital

Will provide family planning services

Will provide assistance to Woreda health office in the supervision, monitoring and evaluation of Health Centres

6.2.1.2 Nutrition

Optimum Breast Feeding

Community/Health Post

Both through community channels and working with families and individual pregnant women and mothers, the HEW and other community-based health workers will promote exclusive breast feeding for the first six months of life, starting within an hour of delivery as a component of newborn care, and the continuation of breastfeeding for at least 24 months.

Health Centre

Will promote exclusive breastfeeding through antenatal and postnatal care and all mother and child contacts.

District Hospital

Will promote exclusive breastfeeding through antenatal and postnatal care and all mother and child contacts.

Will fulfil requirements for the Baby Friendly Hospital Initiative

Actions to strengthen and accelerate exclusive breastfeeding

- HEW training to include principles of ENA, feeding assessment and advice, including practice in breastfeeding assessment and counselling.
- IMCI and ENA training for Health Centre staff.

Complementary feeding

Community/Health Post

The HEW and other CBHWs, will promote through community and family action, improved family practices on complementary feeding.

They will assess and monitor the feeding of children and promote appropriate complementary feeding starting from six months. This will be mainly through outreach services and direct contact with individual families.

Growth monitoring will be introduced, where appropriate, in the Health Post as the basis for feeding advice, including homemade supplementary feeds for children with low weight for age.

The Health Post will be equipped to carry out growth monitoring and nutritional advice both in the facility and through outreach.

Health Centre

Will provide feeding assessment, including weighing, and advice for all children presenting for care.

Will support community and Health Post staff in all aspects of nutrition.

Actions to strengthen and accelerate feeding assessment and support to supplementary feeding

- Practical basic training and continuing support for HEWs in nutritional assessment and advice.
- IMCI and ENA training for Health Centre staff to ensure technical support to the Health Post.
- Use of modified IMCI and ENA training in HEW basic training.

Vitamin A Supplementation

Community/ Health Post

The HEW will provide and record Vitamin A supplements to children from the age of six months to 59 months. This may be done through EPI/plus or other child health dedicated outreach programmes. However, the thrust of their activity in relation to vitamin A is to educate the community on a balanced diet and how to provide it.

Health Centre

Will support the community outreach sessions.

Will provide Vitamin A supplementation through EPI/plus, IMCI and other child contacts

Disease Control

Vaccination against Measles and HiB

Community/ Health Post

The HEW will work with the community and with individual families, with the support of Health Centre staff, to promote the complete EPI/plus schedule for vaccination, including HiB, of all children before their first birthday.

HEWs will vaccinate children through scheduled outreach sessions and in the Health Post.

Health Posts will be equipped for vaccine storage and HEWs will be trained and supervised in the necessary practical skills of storage and administration of vaccines. Where it is more appropriate, vaccines may be stored at the Health Centre and carried to the Health Post for scheduled outreach immunisation sessions.

Health Centre

Will assist HEWs in outreach immunisation sessions.

Will support the HEWs and the Health Post in cold chain and logistics for vaccines, including supply of stocks where suitable, vaccine administration and recording and monitoring.

Will run both fixed site and outreach immunization activities.

Actions to strengthen and accelerate vaccination

- EPI/plus to ensure practical and regular supervision for HEWs.
- Strengthen EPI/plus management and skills at Health Centre and District level.
- EPI/plus and IMCI (re)training for Health Centre staff.
- Use “EPI Diplomas” or other motivational devices.
- Increase regional supervision of EPI/plus activities in Health Centres to improve quality of care and motivation of staff.
- Ensure regular funding for EPI/plus from Regional and District sources.

Insecticide –treated bed nets (ITN)

Community/Health Post

The HEWs will work with community organisations to promote the acceptance and proper use of long-lasting ITNs, and will supply nets to families, giving priority to pregnant women and under-five children.

Health Centre

Will support the storage and distribution of nets through the Health Post.

Will distribute nets as necessary to families presenting at the Health Centre.

Woreda Health Office

Will supervise and support the management of the storage, distribution and use of nets in the Woreda.

Actions to strengthen and accelerate use of ITNs

- Malaria Programme to work with HSEP on suitable promotional methods and logistics.
- Malaria programme to procure long-lasting ITNs and allocate them to districts for free distribution, at least to pregnant women and under-fives.
- Social marketing of nets where appropriate.
- Monitoring of net use in the community.

Safe water, sanitation and hygiene

Community/Health Post

The HEW will help the community and households to assess their needs for safe water and improved sanitation, and stimulate collaboration in the protection of water sources and the digging of wells and latrines.

The HEW will take all opportunities in households and the community to teach about specific measures for hygiene and water safety and encourage basic hygienic practices at home and in schools and other community institutions.

For the purpose of demonstration and example, equip the Health Post and staff homes with facilities for safe water and hygiene.

Health Centre

Will provide, with the Woreda Health Office, technical support for construction.

Equip the Health Centre with proper facilities for safe water and sanitation

Actions to strengthen and accelerate safe water, sanitation and hygiene

- Strengthen the capacity of the Health Centre to support water and sanitation activities
- Initiate collaboration at the Woreda level between the health, water and education sectors

6.2.1.4 Clinical Care

Clean and safe delivery

Community/Health Post

The HEW, working with TBAs and other CBHWs, will promote clean and safe delivery practice and will attend deliveries. They will require delivery kits, including gloves and other basic equipment.

Women requiring care for obstetric emergencies will be referred to the Health Centre.

The HEW will work with Kebele and community organizations to develop effective and affordable mechanisms for emergency obstetric referral.

Health Centre

Will provide obstetric care and basic emergency obstetric care, including Caesarean Section, for women referred from the Health Post or who come directly for delivery.

Together with the Woreda Health Office, will train and support the Community and Health Post staff.

Will provide practical training of delivery to HEWs and TBAs

District Hospital

Will provide comprehensive obstetric care for women referred from the Health Centre or presenting directly.

May provide training of delivery for HEWs, TBAs or Health Centre staff.

Neonatal care

Community/Health Post

The Health Post will be provided with basic equipment for the resuscitation and care of newborns, to be used at home or in the Health Post. Resuscitation and care will be limited to clearing the airway, prompt initiation of breast-feeding and prevention of hypothermia.

Neonates with sepsis will be referred urgently for better care.

Health Centre

Will provide comprehensive care for neonates, including care for hypothermia or sepsis for neonates referred from the community or presenting directly.

Will support the community and Health Post staff in neonatal care.

District Hospital

Will provide referral care for sick neonates, including the care of hypothermia or sepsis

Actions to strengthen and accelerate interventions on clean delivery and neonatal care

- Ensure practical training and adequate experience on clean and safe delivery for HEWs and TBAs. This can take place at the Health Centre or district Hospital if necessary. Include TBAs sponsored by Government, NGOs, missions etc.
- The training of HEWs and TBAs should include *practical* instruction in basic resuscitation and care of the newborn.
- Strengthen basic emergency obstetric care at Health Centres and comprehensive obstetric emergency care in Hospitals.

Childhood illness

HEWs will educate families on the early recognition and care of illness in their children including home care, seeking and following advice on treatment.

They will systematically assess and classify sick children and provide treatment and/or advice, including referral to the Health Centre when necessary.

Treatment of malaria

Community/ Health Post

HEWs will provide anti-malarial treatment for children according to national guidelines. Children with severe illness will be referred to the Health Centre.

Health Centre

Will provide referral or primary care for children with malaria.

District Hospital

Will provide primary care for uncomplicated malaria and management of severe complicated malaria for children within its catchment area and those referred by the Health Centre.

Treatment of diarrhoea

Community/ Health Post

The HEW will assess and classify children with diarrhoea and provide ORS and advice on fluid and feeding at home as needed. ORS with Zinc will be used when available. Severely dehydrated children and children with persistent diarrhoea will be referred to the Health Centre.

Health Centre

Will provide primary or referral care for children presenting with diarrhoea.

District Hospital

Will provide primary or referral care for children presenting with diarrhoea.

Treatment of pneumonia

Community/ Health Post

The HEW will assess and classify children with cough or difficult breathing and refer those who have pneumonia and severe pneumonia to the Health Centre for appropriate management.

Health Centre

Will provide primary or referral care for children presenting with ARI/pneumonia including the use of oxygen.

District Hospital

Will provide primary or referral care for children presenting with ARI/pneumonia including the use of oxygen

Malnutrition

Community/Health Post

The HEW will promote exclusive breastfeeding for the first six months of life, starting within an hour of delivery as a component of newborn care, and the continuation of breastfeeding for at least 24 months.

HEWs will assess the feeding practices of every child and identify feeding problems and provide appropriate feeding advice. More over, they will also do growth monitoring for children under the age of three years. They will manage children with mild malnutrition mainly through appropriate feeding advice and counselling.

HEW will assess and classify the nutritional status of every child and refer children with severe malnutrition to the Health Centre.

Health Centre

Will manage children with severe malnutrition, either referred from the community or presenting directly. If necessary, may refer severely malnourished children to Hospital.

District Hospital

Will manage severely malnourished children referred from the Health Centre or presenting directly

HIV/AIDS

Community/Health Post

The HEW will teach the community on the prevention of HIV/AIDS and advise pregnant mothers for VCT. The HEW will monitor adherence to Co-trimoxazole prophylaxis, ART and other treatments. They will also provide home-based care for individuals with HIV/AIDS.

Health Centre

Will provide VCT and initiate and follow-up ARV treatment of children with HIV

District Hospital

Will provide VCT and initiate and follow-up ARV treatment of children with HIV.
Will manage referred patients with ART side effects and severe opportunistic infections.

Actions to strengthen and accelerate care of child illness

The HEW will be appropriately trained in assessment, classification and management of acute respiratory infections, diarrhoea, dysentery, malaria and malnutrition. In addition, they will be trained to assess, classify and refer neonates with sepsis. The training should follow the IMCI case management principles, and should include the follow-up and continuing support of the HEW from the Health Centres. Careful attention to assure an uninterrupted supply of essential drugs and supplies will be necessary.

To ensure as much utilisation of curative care as possible the treatment of children under five years of age should be free of charge.

6.3 Health Care for the Children of Pastoralists

The variable needs of the pastoralists make a standardised approach difficult. The FMOH and its partners, with input from NGOs with suitable experience and with the collaboration of all concerned sectors under the umbrella of the Ministry of Federal Affairs will support the development of relevant strategies as part of the Health Services Extension Package.

6.4 The Operational Implications for Health Delivery Systems and Programmes

The proposed strategy, when successfully carried out in the context of the expansion plans for PHC facilities and human resources, will greatly increase the impact of the activities of existing health programmes and organisations, both governmental and non-governmental, concerned with child health.

The PHC Expansion Plan (see chapter 3) will in principle overcome the major constraint of access to health facilities. Many of the programmes involved with child survival, however, have identified training, supply logistics, supervision and referral as major constraints. Overcoming these constraints in line with the timetable for expansion and the phasing of the Child Survival Strategy calls for a rapid and focused acceleration of work in these areas.

Human resources will be addressed by the PHC Expansion Plan, but the staff must have the right balance of skills for the jobs they will do. Some training can be provided through in-service courses, but considering the number of staff needed, it is unlikely that the numbers can be achieved by in-service training alone. The planning for the human resource expansion must involve all the programmes concerned with child survival so that the necessary skills can be fitted into basic training. The relatively expensive in-service training can then be used for retraining and the introduction of new skills.

Logistic bottlenecks are a major constraint in several of the programmes concerned with child health. Delay or failure of the supply of vaccines, drugs, contraceptives or bed nets can paralyse the implementation of a programme. In some cases the solution may lie with an individual programme, and these programmes should give high priority to it. More often it will require action across the sector. The planning and introduction of the PHC Expansion Plan is an opportunity to plan, fund and implement practical solutions.

Supervision is an essential function at and between all levels of the health system. Reports from most programmes speak of the weakness of supervision and the loss of motivation and efficiency that this produces. Supervision must be seen as a priority need, particularly for the success of community-based programmes, and it should be managed as such. The FMOH and individual programmes must be prepared to make available the necessary human, financial and technical resources to produce and sustain an effective supervisory system to support essential interventions.

Referral: The success of clinical care services at the lower levels depends to some extent on the possibility of referring people with problems that are beyond the capacity of one level to

the level above. In particular, many women with severe obstetric complications and children with severe illness will not survive without more complex care than can be offered in the community. The barriers to successful referral include absence of transport, lack of family finance and the inadequate capacity of the referral unit. These constraints need to be addressed systematically and with adequate resources as an essential part of the establishment of community and Health Centre services.

Below is a summary of the specific areas that need to be addressed in and by specific concerned offices and programmes in order to accelerate their elements of the Child Survival Strategy.

6.4.1 Federal Ministry of Health

- Establishment of management, monitoring and supervision structure for the Strategy
- Coordination of expansion plans for human resources and facilities
- Incorporation of the Child Survival Strategy in broader planning for the health and other sectors
- Explicit priority to funding and resources for child health
- Explicit plans and funding for logistics, supervision and referral
- Policy response to needs of the Child Survival Strategy, e.g. public health support role of Health Centres, antibiotics for Health Posts

6.4.2 Regional Health Bureaux

- Establishment of management, monitoring and supervision structure for the Strategy in the region
- Coordination of expansion plans for human resources and facilities
- Incorporation of the Child Survival Strategy in broader planning for the health and other sectors in the region
- Explicit priority to funding and resources for child health
- Explicit plans and funding for logistics, supervision and referral
- Training of regional and Woreda management staff on planning and leadership

6.4.3 Woreda Health Office

- Strengthen management team to meet the increased load of the PHC Expansion.
- Strengthen logistic support within the Woredas
- Clearer structures and mechanisms of technical support from the RHB to the Woreda Health Office
- Ensure Kebeles are involved in the proper selection of HEWs to serve their communities and in their supervision

6.4.4 Health Services Extension Programme

- Clear definition of tasks of the HEW, including role in support of CHPs and other community based workers
- Ensure training is realistic in scope and PRACTICAL

- Balance between training, equipment, building and support from the Health Centre in expansion plans
- Clearly defined role of the Health Centre in clinical and public health supervision and support of the Health Post and HEWs
- Community contracts to include the community's construction of Health Post as their contribution to cost of the HSEP
- Responsive monitoring of HSEP inputs and outcomes

6.4.5 Integrated Management of Childhood Illness (IMCI)

- Rapid expansion of in-service training to fill short-term gaps
- Rapid introduction of IMCI case management into all pre-service health worker training schools
- Evaluation of the impact of IMCI in-service training on practice of graduates
- IMCI technical input into review and revision of HEW training packages
- Retraining of Health Centre staff on integrated clinical care of children
- Introduction of the WHO Guidelines on the Management of the Child with a Serious Infection or Severe Malnutrition to all Hospitals and Health Centres, to be used as the basis for case management and refresher training.
- Introduction of IMCI supervisory techniques into the training of Health Centre staff
- Work with key partners and others to use experience of C-IMCI to assist in the training of Community Health Promoters
- Use of experience of C-IMCI to strengthen the HEW activities in developing promotional approaches

6.4.6 Expanded Program on Immunization (EPI)

- Development and introduction of practical vaccine storage and cold chain procedures for Health Post and outreach use in the community.
- Ensure practical and regular supervision for HEWs
- Strengthen EPI/plus management and skills at Health Centre and Woreda level
- EPI/plus (re)training for Health Centre staff
- Increase Regional supervision of EPI/plus activities in Health Centres to improve quality of care and motivation of staff
- Ensure regular funding for EPI/plus from Regional Health Boards and Woreda Health Office

6.4.7 Maternal and Neonatal Health

- MPS team to give priority to community level antenatal care, ensuring support and supervision of HEWs
- Rapid expansion of training of midwives and training in clean delivery for TBAs who are sponsored by Government, NGOs, missions etc
- The training of HEWs and TBAs should include *practical* instruction in basic resuscitation and care of the newborn
- Include in HEW and TBA training the kangaroo mother care and other standard methods for prevention and management of hypothermia
- Strengthen emergency obstetric care at Health Centres with training and equipment.

6.4.8 Nutrition

- Practical basic training and continuing support for HEWs in growth monitoring and advice. This must include training/retraining for Health Centre staff
- ENA training and support for HEWs and Health Centre staff

6.4.9 Malaria control

- Work with HSEP on suitable promotional methods and logistics for ITN at community and Health Centre level
- Procure long-lasting ITNs and distribute them to districts for free distribution, at least to pregnant women and under-fives
- Community monitoring of ITN use

6.5 Phasing of the Strategy

The Strategy aims to achieve its impact over a ten year period. Its effectiveness will depend to a large extent on the rate at which primary health care coverage is increased, on the success of the Health Services Extension Programme and on the success in overcoming the bottlenecks in the health system. It is very important that the Strategy should be able to respond to positive opportunities and to take corrective action if interventions or delivery mechanisms do not come up to expectations.

The Strategy has two phases: 2005 to 2009 and 2010 to 2015, corresponding to the planned rate of implementation of the PHC Expansion Plan. By 2009, most, if not all, of the new facilities should have been constructed and their staff trained. The subsequent five years are seen as a period of consolidation of the quality and utilisation of the services. There will be no pilot phase.

The rate of implementation will be planned in each region to match its capacity, but the implementation should be closely monitored so that corrections can be made as the need arises. The available interventions will be introduced as soon as facilities in each Woreda are completely ready, with staff, supplies and equipment, supervision and referral in place. The Woreda and Regional offices will monitor implementation closely.

Every six months for the first two years, and then less often if the situation allows, the Child Survival Executive at each level will review the progress of implementation, identify problems, strengths and weaknesses and adjust the activities or recommend adjustments, as necessary. The review process will be carried out collaboratively among the different levels.

Lessons learned from implementation will be fed straight into the management of the services and disseminated through the regional and national Child Health Executives.

CHAPTER VII

PARTNERSHIP FOR CHILD SURVIVAL

7.1 The Child Survival Partnership

The Millennium Development Goal 4 of reducing under-five mortality cannot be achieved without a dramatic and sustained commitment of resources to prevent and treat the most common causes of child death in the countries where the greatest proportion are occurring.

To this end, the global Child Survival Partnership was formed in 2003 to mobilize increased resources, effort and collaboration to take known, effective child survival interventions to scale in the 42 countries with the greatest burden of childhood deaths.

Members of the Global Partnership include UNICEF, WHO, the World Bank, USAID, CIDA, the Bill & Melinda Gates Foundation and representatives from developing countries, research institutions and international non-governmental organizations.

In December 2003, a senior delegation representing the global Child Survival Partnership came to Ethiopia to work with the Government to identify potential opportunities for formal engagement. One outcome of that visit was the agreement to jointly sponsor a National Child Survival Conference in April 2004. The purpose of this conference was to reach a consensus on the key child survival interventions and delivery approaches needed for Ethiopia and to define the role of partners in reaching the child survival MDGs, as well as the resources required for that endeavour.

7.2 Partnership in Ethiopia

National and international partners have been, and continue to be, very important in the development of child survival and health programmes in Ethiopia. The Health Sector Development Plan encourages participation of the private sector and the NGO sector by creating an enabling environment for participation, coordination and mobilization of funds. The importance of this partnership lies particularly in:

- Increasing access to and coverage of health services - about ten percent of health facilities are currently provided by the NGO and private health sectors.
- Introduction of innovative interventions and systems, especially at community level
- Transfer of good practices and experiences
- Filling resource gaps
- Development of the capacity of the health system through training.

The working relationship between the MOH and its partners is good. Partners should channel their inputs through the policies and strategies of the MOH, and this generally avoids any problems of duplication or competition. It is expected that the Child Survival Strategy will add focus to the relationship and that internal and external partners will contribute at least in:

- Building the capacity of the health system and other relevant sectors
- Intensifying social mobilization and advocacy

- Strengthening the logistic system for child survival
- Integrating interventions in line with government system.
- Developing key indicators and uniform reporting formats and mechanisms
- Joint monitoring and evaluation of the Strategy, including review of progress towards the Child Survival MDGs
- Encouraging and supporting operational research

Partnership will be important in the development and implementation of the Child Survival Strategy. A genuinely collaborative approach will make the best use of the resources that the partners can bring to the task. It will raise and maintain the profile of Child Survival and create the confidence needed to generate investment. It is planned (see chapter VII) that the partners will play an active role in the management of the Strategy at all levels.

Table 12. UN, multilateral and bilateral organization and NGOs activities in the health sector

Agency	Activity
UNICEF	EPI/plus, safe motherhood, DPC, Adolescent sexual and reproductive health, IMCI, Nutrition, HIV/AIDS
WHO	DPC, Safe motherhood, IMCI, EPI/plus, MPS, HIV/AIDS, water and sanitation, EHA, Support to strengthening local institutions, macroeconomics and health
USAID	EPI/plus, HIV/AIDS, IMCI, ENA, Community Mobilization, Reproductive Health, Logistics, HMIS, Health Care Financing
UNDP	Expand and rehab PHC facilities, support HIS, improve quality of health services through human resource development
UNFPA	Reproductive health and FP, DHS, HIV prevention
African Development Fund	PHC facility construction in Oromia, Amhara and SNNPR Regions
The World Bank	HSDP support, mainly facility construction and HIV/AIDS prevention
Austrian Development Agency	Rehabilitate and expand health facilities and human resources in Somali Region
GTZ	Reproductive health in Amhara Region
Italian Cooperation	TB and malaria control, Hospital management in Oromia Region, construction of new Health Centres in Oromia, Tigray and Amhara Regions
Irish Aid	Water and sanitation, training of community health workers nationwide, focus on SNNPR and Tigray Regions
JICA	Provision of vaccines and medicines for reproductive health and child survival and cold chain
The Netherlands	Human resource development, water and sanitation, HIV control and prevention, IEC and materials development
SIDA	Training of midwives and other health personnel, HIV control and prevention activities, IEC and materials development
CIDA	Micronutrients (Vitamin A, Iodine)
CARE	Child Health, Nutrition
SC- USA	Child Health, maternal and neonatal health
SC- UK	Child health
SC- Denmark	Child Health

7.3 The Role of Health Training Institutions in the Ethiopian Child Survival Strategy

To date, now health institutions in Ethiopia have contributed substantially to both curative and preventive aspects of child health activities through the training of all types of health cadres, conducting research and by providing clinical care.

Today, the need to accelerate child survival in Ethiopia is high on the national and global agenda. The child survival initiative addresses the major causes of death through key cost-effective interventions. It is important that training health institutions consider this and accordingly revise the content of their paediatrics and child health teaching to meet the needs of the country in line with the Child Survival Strategy.

Besides training, health institutions should also take responsibility in the development of research proposals on the major child health problems of the country, with special emphasis on community-based research, which will ultimately be relevant for child survival.

The most important areas of collaboration will be:

- Teaching institutions should pay serious attention to the quality of their graduates. This implies that they should make sure that at the end of their training their graduates are able to carry out both curative and preventive activities effectively and efficiently.
- The FMOH should encourage researchers in the teaching institutions to take up research issues which are relevant to the country's needs in the area of Child Survival. FMOH may also suggest operational research topics to be conducted by health institutions.
- FMOH should inform all teaching institutions about all relevant child health activities in the country and ensure that they have access to all necessary national health data, documents on health indicators, national strategies, guidelines and planning documents.
- In-service training is currently being run by FMOH, UN Agencies and NGOs, including training on IMCI, ENA, EPI/plus, malaria, PMTCT, and MPS. To be sustainable and cost effective, this training should be incorporated, as much as possible, into the pre-service curricula of the training institutions.
- To aid communication and to create a bridge between the FMOH and health training institutions, representatives of the health training institutions will be included into the child survival management structure at all levels.

7.4 Partnership with Professional Societies for Child Survival

The following professional societies are particularly relevant to child health and related issues:

7.4.1 Ethiopian Paediatric Society (EPS)

With the development of the Child Survival initiative in Ethiopia, EPS should further strengthen its collaboration with the MOH.

Child survival should be a recurring theme in the annual conferences of EPS, so that EPS will be able to disseminate information about child survival activities to its members and mobilize them all to play an active role in implementation.

EPS should continue providing continuing medical education on selected relevant issues of child survival strategy.

EPS should continue its active participation in both in-service and pre-service training for IMCI, EPI/plus, ENA and other important child health interventions.

EPS should encourage its members to conduct research on relevant issues related to child survival.

7.4.2 Ethiopian Society of Obstetrics and Gynaecology (ESOG), Ethiopian Public Health Association (EPHA), Ethiopian Nurse-midwives Association and Ethiopian Nurse Association

These societies can contribute to the training of all relevant health cadres and can conduct and support operational research on issues relevant to child health. They can also participate actively in the implementation of child survival strategy through preventive, promotive activities and by providing clinical care to sick children.

All of the above societies will be invited to play an active role in the management of the Child Survival Strategy at National and Regional levels.

CHAPTER VIII

MANAGEMENT OF THE CHILD SURVIVAL STRATEGY

8.1 Introduction

The Strategy will guide planning and implementation of all child health-related programmes, but its success will require the coordinated action of a wide range of different programmes and bodies at the different levels of the health system. The Strategy proposes a four-tiered structure for the management and coordination of the Strategy:

8.2 National Child Survival Steering Committee

Functions

- Provide political visibility and support to the Child Survival Strategy
- Facilitate the coordination of the input of all the major internal and external partners in the country in the Child Survival effort
- Oversee the implementation of the National Child Survival Strategy
- Advise the national Child Survival Executive Group
- Facilitate coordination with non-health sectors relevant to child survival
- Act as the national point of contact with the Global Child Survival Partnership
- Assist in raising funds for the Strategy
- Promote and identify funding for operational research to address problems of Child Survival

Membership

- Vice-Minister of Health (Chair)
- Senior representatives of multilateral and bilateral partners
- Head of the Family Health Department
- Heads of programmes for Malaria, HSEP, Water and Sanitation
- Head of Health Planning and Programming Department
- Representatives of Ministries of Water Supply and Education
- Representatives of the Office of Women's Affairs
- Representatives of Higher Health Institutions
- Representatives of the EPS, ESOG, EPHA, ENA, ENMA
- Head of Health Education centre

8.3 National Child Survival Executive

Because the Executive is chaired by the Vice Minister of Health it will have the authority to ensure that all the programmes at the national level, including the NGOs and partner projects supporting them, develop, promote and abide by one plan for the implementation of the Strategy.

Functions

- Coordinate the planning and implementation of the components of all FMOH programmes that relate to child health, in line with the National Child Survival Strategy
- Develop and disseminate technical and managerial guidelines for aspects of Child Survival
- Support regional planning for child survival
- Support Regional problem-solving and planning for child survival in special population groups
- Monitor and evaluate the national implementation of the Strategy – including periodic reviews of the implementation of the Strategy

Membership

- Vice Minister of Health (Chair)
- Head of the Family Health Department
- Representatives of the Family Health Teams
- Head of the Planning Department
- Heads of the programmes for Health Services Extension, Malaria Control, PMTCT, Water and Sanitation, IEC
- Head of Health Education Centre

8.4 Regional Child Health Executive

Functions

- Coordinate the planning and implementation of the components of all FMOH programmes in the Region that relate to child health, in line with the National Child Survival Strategy
- Coordinate the inputs of partners and NGOs working on child survival in the Region
- Disseminate technical and managerial guidelines for aspects of Child Survival
- Develop (with support from the National Child Survival Executive) approaches to meet the child survival needs of special population groups
- Collaborate with the Regional offices for Education, Water and Agriculture on activities relevant to Child Survival
- Support Woreda Health Offices in planning for Child Survival and in reviewing progress and solving problems
- Monitor and evaluate the implementation of the Strategy, including periodic reviews

Membership

- Regional Health Bureau Head (chair)
- Heads of all Family Health Department teams
- Heads of Planning, HSEP, Malaria, Water and Sanitation, AIDS/PMTCT, IEC
- Representatives of partners and NGOs working in Child Health in the Region

- Representatives of the health training institutions
- Representative of the Office of Women's Affairs.

8.5 Woreda Child Survival Team

Functions

- Coordinate the planning, implementation, supervision and support of all child survival activities in the Woreda in line with the Child Survival Strategy
- Coordinate the inputs of partners and NGOs in the Woreda in the area of child survival
- Collaborate with the Woreda offices for Education, Water and Agriculture on activities relevant to Child Survival
- Monitor and evaluate Child Survival activities, including periodic reviews of implementation and problem solving.

Membership

- Woreda Health Office head (chair)
- Heads of all child health related programmes
- Head of all child health teams
- Representatives of all partners and NGOs working on child survival in the Woreda
- Representatives of the Woreda offices for Education, Water and Agriculture
- Director of the District Hospital

8.6 Kebele Child Survival Team

Functions

- Coordinate the planning, implementation, supervision and support of all child survival activities in the in the Kebele in line with the Child Survival Strategy
- Coordinate the inputs of partners and NGOs in the Kebele in the area of child survival
- Collaborate with the Kebele agents of agriculture, Education, Water and other community organization on activities relevant to Child Survival
- Monitor and evaluate Child Survival activities, in the Kebele including periodic reviews of implementation and problem solving.

Membership

- Kebele administration head (chair)
- HEWs
- Representative of all partners and NGO
- Representative of all agents of different sectors working in the Kebele
- Representative of community health workers

CHAPTER IX

SUPERVISION, MONITORING AND EVALUATION

9.1 Supervision

Supervision is a means of ensuring staff competence, effectiveness, efficiency and satisfaction through observation, discussion, support and guidance. Supervision should also include advocacy, encouragement and assistance with resources and logistics and improve motivation of staff. Therefore, it is an important tool in staff management at all levels and facilities involved in the CSS. Supervision is an essential on-the-job training activity, which all staff with supervisory responsibilities should do on a regular basis. For this, health workers who are to have responsibility for supervision need proper training in supervision. There is also a need to develop standardized supervisory checklists based on the duties and responsibilities of the unit to be supervised.

The overall aim of supervision is the promotion of continuous improvement in the performance of the staff. The immediate objectives of supervision can be summarized as follows:

- Assuring that activities are properly implemented
- Identifying factors that may inhibit or enhance proper implementation of the programmes
- Identifying for ways to improve performance in close collaboration with the health staff involved
- Motivating and supporting health staff to sustain a high level working morale

9.1.1 Supervision Visit for Skill Reinforcement, and Problem Solving to Support the Implementation of Child Survival Strategy

Observe health workers in performing their various tasks to reinforce skills

The supervisor observes the trained health worker managing various preventive and curative activities and reinforces skills as necessary. They record and summarize information on the performance of trained health workers. During the course of observation the supervisor should have discussions with the clients of the different services.

Review facility supports and summarize information collected

The supervisor reviews the conditions in the facility that affects the implementation of the Child Survival Strategy. Examples of facility supports are space and equipment, the availability of drugs and other supplies. The supervisor records and summarizes the findings.

Facilitate problem solving with the staff

The supervisor uses information from the observations to help facility staff identify and solve problems that interfere with the implementation of the different interventions. For those problems that cannot be solved at the facility level, the staff and supervisor identify actions needed at other levels.

Complete a summary report of visit

Before leaving the facility, the supervisor writes a brief summary of the results of the visit (strengths and weaknesses found), actions taken to reinforce good practices and to solve problems, and actions still needed and discusses it with the staff. A copy of this summary is left at the facility. A copy may be given to other levels. The supervisor can use this report to alert others in the health system who need to correct problems within their areas of responsibility.

9.2 Monitoring and Evaluation

Monitoring is a continuous and day-to-day follow up assessment of the progress of a project or intervention program during the implementation phase to ensure that it is proceeding according to plan and to the implementation schedule. It mainly focuses on inputs, processes and outputs.

Evaluation is assessment done at a point in time to see whether the objectives have been achieved and the interventions have produced the desired impact. Evaluation also addresses the relevance of the program in bringing change, the effectiveness and efficiency of program implementation and the sustainability of the program. Evaluation is critical in assisting in policy formulation, resource allocation, advocacy and dialogue among stakeholders in health service delivery.

Monitoring and evaluation play a critical management function by assessing whether the implementation of programs proceeds according to plan and leads to the desired outcomes. They should be an integral part of the implementation of the Child Survival Strategy at all levels.

As the Strategy is output oriented, the indicators for monitoring and evaluation should largely relate to the outputs and processes in program implementation. Thus, the CSS needs indicators that show progress in the implementation of activities planned for the achievement of the set objectives, as well as indicators to track progress towards service coverage, quality of care, and impact.

Services and facilities should generate reliable data at various levels according to the activities taking place at those levels. The data should be utilized by the generating unit and passed to the next level.

Data could be generated through: routine collection systems which provide data on scheduled activities and reflect the extent and quality of the implementation of key interventions.

Surveys/studies/supervision/reports to identify the current status of existing problems and the outcomes of particular interventions.

There is also a need to develop indicators for proper monitoring and evaluation based on the activities and targets of CSS. This also helps to give a timely feedback to all partners at the various levels.

Table 13 depicts selected indicators for supervision, monitoring and evaluation of the child survival strategy.

Table 13: Selected Indicators for Monitoring and Evaluation of Child Survival Strategy

Priority Area	Indicator	Source	Level of Collection	Timing	Responsibility	Baseline	Target
Mortality							
	Maternal Mortality Rate	DHS, Survey	Community	5 yearly	National		
	Neonatal Mortality Rate	DHS, Survey	Community	5 yearly	National		
	Infant Mortality Rate	DHS, Survey	Community	5 yearly	National		
	Under-five Mortality Rate	DHS, Survey	Community	5 yearly	National		
Nutrition							
<i>Breastfeed</i>	Exclusive Breastfeeding Rate (for children < 6 months)	DHS, HEP records	Community Health facility	5 yearly 6 monthly	National RHB/WHO		
	Timely Complementary Feeding Rate	DHS	Community	5 yearly	National		
<i>Growth Monitoring</i>	Proportion of children 0-59 months of age with underweight (below - 2 SD weight-for-age)	HEP records DHS	Health Facility Community	Annually	WHO/RHB/National		
	Proportion of children 0-59 months of age wasted (below - 2 SD weight-for-height)	HEP records DHS	Health Facility Community	Annually	WHO/RHB/National		
	Proportion of children 0-59 months of age stunted (below - 2 SD height-for-age)	HEP records DHS	Health Facility Community	Annually	WHO/RHB/National		
<i>Vitamin A</i>	Proportion of children 0-59 months of age who received at least one doses of Vit A supplementation in the last 6 months	HEP records DHS, HF exit interview	Health Facility Community Health Facility	Monthly 5 yearly 3 yearly	WHO/RHB National		
<i>Zinc</i>	Proportion of children 0-59 months of age with diarrhoea who received zinc as treatment	HEP records DHS, HF exit interview	Health Facility Community Health Facility	Monthly 5 yearly 3 yearly	WHO/RHB National		
Immunization							
	Proportion of children with vaccination card who are fully immunized by the age of one year	DHS Survey HF exit interview	Community Community Health Facility	5 yearly 3 yearly	Nat/RHB/WHO National		
	Proportion of children 12-23 months of age, who received specific vaccines by 12 months of age Measles DTP3 BCG HiB	DHS EPI/plus Monthly returns	Community Woreda/Region	5 yearly Monthly	National Region/Woreda		

Priority Area	Indicator	Source	Level of Collection	Timing	Responsibility	Baseline	Target
	Drop-out Rate (DTP1-DTP3)	Immunization/ Monthly returns	Kebele/Woreda Woreda/Region	Monthly	HP/WHO RHB/Nat		
	Number of reported measles cases per year	Immunization/ Monthly returns	Kebele/Woreda Woreda/Region	Monthly	HP/WHO RHB/Nat		
	Proportion of HF's with all vaccines available and stored under appropriate conditions on the day of the survey	Survey Supervisory visit	Kebele/Woreda Health Facility	3 yearly 6 monthly	Nat/RHB/WHO		
	Proportion of HFs with functioning vaccine fridge	Survey Supervisory visit	Kebele/Woreda Health Facility	3 yearly 6 monthly	Nat/RHB/WHO		
Health worker performance							
<i>Assessment</i>	Proportion of children who were assessed for all key dangers signs	Survey Supervisory visit	Kebele/Woreda Health Facility	3 yearly	Nat/RHB/WHO		
	Proportion of children assessed for all main symptoms (diarrhoea, cough/difficult breathing, fever)	Survey Supervisory visit	Kebele/Woreda Health Facility	3 yearly	Nat/RHB/WHO		
<i>Health worker performance</i>	Proportion of sick children (with vaccination card) needing vaccination, vaccinated or referred for vaccination	Survey Supervisory visit	Kebele/Woreda Health Facility	3 yearly	National		
<i>Diarrhoea</i>	Proportion of sick children with a history of diarrhoea assessed for dehydration by using skin pinch	Survey Supervisory visit	Kebele/Woreda Health Facility	3 yearly	National		
<i>ARI</i>	Proportion of sick children with a history ARI assessed for fast breathing	Survey Supervisory visit	Kebele/Woreda Health Facility	3 yearly	National		
<i>Treatment</i>	Proportion of children with a history of diarrhoea who received appropriate treatment according to the diagnosis and national treatment guidelines	Survey Supervisory visit	Kebele/Woreda Health Facility	3 yearly	National		
	Proportion of children with a history of malaria who received appropriate treatment according to the diagnosis and national treatment guidelines	Survey Supervisory visit	Kebele/Woreda Health Facility	3 yearly	National		
	Proportion of children with a history of cough who received appropriate treatment according to the diagnosis and national treatment guidelines	Survey Supervisory visit	Kebele/Woreda Health Facility	3 yearly	National		
<i>Counseling</i>	Proportion of sick children whose caretaker was given at least one message on when to return	Survey Supervisory visit	Kebele/Woreda Health Facility	3 yearly	National		

Priority Area	Indicator	Source	Level of Collection	Timing	Responsibility	Baseline	Target
Caretakers Knowledge/Lifestyle							
	Proportion of all diarrhoea cases who received increased amount of fluids and continued feeding	DHS	Community	5 yearly	National		
<i>Malaria</i>	Proportion of children under five who slept under an insecticide impregnated bed net during the previous night	DHS Survey	Community	5 yearly 3 yearly	National		
Water and Sanitation							
<i>Water</i>	Proportion of population with access to adequate amount of safe drinking water	DHS Survey	Community	5 yearly	National		
<i>Sanitation</i>	Proportion of population with access to a sanitary facility for human excreta disposal	DHS Survey	Community	5 yearly	National		
Equipment and Supply							
	Proportion of HCs with functioning basic equipment as per standard	Survey	Kebele/Woreda Health Facility	3 yearly	National		
	Proportion of district Hospitals with functioning basic equipment per standard	Survey	Woreda/Region	3 yearly	National		
Training							
<i>EPI/plus</i>	Number of health workers yearly trained in EPI/plus	Survey Reports Woreda and Region	Kebele Woreda Region	Yearly	WHO/RHB National		
<i>Nutrition</i>	Number of health workers yearly trained in nutrition	Survey Reports Woreda and Region	Kebele Woreda Region	Yearly	WHO/RHB National		
<i>Malaria, ARI, Diarrhoea</i>	Number of health workers yearly trained in malaria, diarrhoea and ARI case management	Survey Reports Woreda and Region	Kebele Woreda Region	Yearly	WHO/RHB National		
<i>IMCI</i>	Number of health workers yearly trained in IMCI	Survey Reports Woreda and Region	Kebele Woreda Region	Yearly	WHO/RHB National		
Supervision							
	Proportion of health facilities who received at least one supervisory visit in the last 6 months which included observation of clinical skills	Survey Reports Woreda/Regional	Woreda Region	3 yearly Yearly	National Woreda/Region		

Priority Area	Indicator	Source	Level of Collection	Timing	Responsibility	Baseline	Target
Maternal and Neonatal Care							
	Proportion of pregnant women attended focused ANC Visit 1 Visit 2 Visit 3 Visit 4	Antenatal returns DHS	Community Health Facility	3 yearly Yearly	WHS/RHB National		
	Proportion of HIV+ pregnant mothers who are on PMTCT	Antenatal returns DHS	Community Health Facility	3 yearly Monthly	WHS/RHB National		
	Proportion of low birth newborns put on Kangaroo care	MCH routine data DHS	Community Health Facility	3 yearly Monthly	WHS/RHB National		
	Proportion of live births, weighed at birth with a birth weight below 2.5kg	MCH routine data DHS	Community Health Facility	3 yearly Monthly	WHS/RHB National		
	Proportion of newborns with sepsis treated with antibiotics	MCH routine data DHS	Community Health Facility	3 yearly Monthly	WHS/RHB National		