



CCBRT Maternity Hospital, Dar es Salaam, Tanzania  
*Five -Year Strategic Plan*

2010-14



**CCBRT Maternity Hospital**  
Dar es Salaam, Tanzania

*Five -Year Strategic Plan*

**2010-14**



# CONTENTS

Abbreviations	3	Annexes	48
Acknowledgements	4	Annex 1: Glossary	48
Foreword	5	Annex 2: List of people met	50
Executive summary	6	Annex 3: Human resources national requirements	51
Introduction	9	Annex 4: Ministry of Health and Social Welfare background documents	52
1 National context	11	Annex 5: Summary statistics for maternal and perinatal care services in selected hospitals in Dar es Salaam	55
1.1 Geography and population	11	Annex 6: CCBRT collaboration chart	56
1.2 Maternal and neonatal health in Tanzania	11	Annex 7: CCBRT organisational structure	57
1.3 The Tanzanian health system	13	Annex 8: Internal referral chart	58
1.4 Government policy framework	15	Annex 9: Entry points for HIV/AIDS comprehensive care and treatment	58
2 Rationale and problem analysis	17	Annex 10: Comprehensive Care for Prevention of Mother-to-Child Transmission of HIV	61
2.1 Perinatal health in Dar es Salaam Region	17	Annex 11: Health services in CCBRT Maternity Hospital	62
2.2 UN process indicators for Emergency Obstetric Care services in DSM region	18	Annex 12: CCBRT Maternity Hospital departments, wards and units	63
3 Comprehensive Community Based Rehabilitation in Tanzania	21	Annex 13: WHO Care in pregnancy, childbirth and postpartum period for mother and newborn infant	63
3.1 The organisation	21	Annex 14: MDG, MKUKUTA and One-Plan targets and indicators	66
3.2 Governance and management	22	Annex 15: CCBRT Maternity Hospital indicators	67
3.3 Values	23	Annex 16: Budget	68
4 Strategic outline	24		
4.1 Vision and mission	24		
4.2 Target group	24		
4.3 Strategy	25		
4.4 Services and capacity of CCBRT Maternity Hospital	28		
4.5 Output and activities	33		
5 Monitoring and evaluation	42		
6 Implementation plan for the construction of the hospital	42		
6.1 Establishment of implementation team	42		
6.2 Development of implementation plan	42		
7 Budget and financing	43		
7.1 Budget	43		
7.2 Financing of CCBRT Maternity Hospital	43		
7.3 Core funding	44		
8 Assumptions, risks and preconditions	45		
8.1 Assumptions	45		
8.2 Risks	45		
8.3 Preconditions	45		
References	46		

# ABBREVIATIONS

AAFP	American Academy of Family Physicians	NMR	Neonatal Mortality Rate
ALSO	Advanced Life Support in Obstetrics	NMSF	National Multi-sectoral Strategic Framework for HIV and AIDS
ANC	Antenatal Care	NORAD	Norway Agency for Development Cooperation
ARV	Anti-Retroviral	NTPI	Norway-Tanzania Partnership Initiative
CBR	Community Based Rehabilitation	OPD	Outpatient Department
CCBRT	Comprehensive Community Based Rehabilitation in Tanzania	PBF	Performance Based Funding
CCHP	Council Comprehensive Health Plan	PCR	Polymerase Chain Reaction
CFR	Case Fatality Rate	PITC	Provider Initiated Testing and Counselling
CT	Care and Treatment	PLHIV	People Living with HIV
CTC	Care and Treatment Clinic	PMO-RALG	Prime Minister's Office – Regional Administration and Local Government
Danida	Danish International Development Agency	PMTCT	Prevention of Mother to Child Transmission of HIV
DFID	Department for International Development (UK)	PPH	Postpartum Haemorrhage
DSM	Dar es Salaam	PPP	Public - Private Partnership
EmOC	Emergency Obstetric Care	QA	Quality Assurance
FHI	Family Health International	RCHS	Reproductive Child Health Section
FP	Family Planning	RDH	Regional Disability Hospital
GoT	Government of the Republic of Tanzania	RHMT	Regional Health Management Team
GTZ	German Technical Cooperation	RMO	Regional Medical Officer
HIV	Human Immunodeficiency Virus	SSA	South-Saharan Africa
HMIS	Health Management Information System	SDC	Swiss Agency for Development and Cooperation
HSHSP II	Health Sector HIV and AIDS Strategy Paper II	STI	Sexually Transmitted Infection
HSSP II	Health Sector Strategic Plan II	SWAp	Sector-Wide Approach
IEC	Information, Education and Communication	TACAIDS	Tanzanian Commission for AIDS
IUFD	Intrauterine Foetal Death	TB	Tuberculosis
IUGR	Intrauterine Growth Restriction	TDHS	Tanzania Demographic and Health Survey
IMCI	Integrated Management of Childhood Illness	THIS	Tanzania HIV Indicator Survey
IMR	Infant Mortality Rate	TPMNCH	Tanzania Partnership for Maternal, Newborn and Child Health
MDG	Millennium Development Goal	TQIF	Tanzania Quality Improvement Framework
M&E	Monitoring and Evaluation	U-5MR	Under-five Mortality Ratio
MKUKUTA	National Strategy for Economic Growth and Reduction of Poverty	UNFPA	United Nations Population Fund
MMAM	Mpango wa Maendeleo wa Afya ya Msingi	UNGASS	United Nations General Assembly Special Session on AIDS
MMR	Maternal Mortality Ratio	UNICEF	United Nations Children's Fund
MNH	Muhimbili National Hospital	USAID	United States Agency for International Development
MNCH	Maternal, Newborn and Child Health	VVF	Vesico-Vaginal Fistula
MOHSW	Ministry of Health and Social Welfare	VCT	Voluntary Counselling and Testing
MoU	Memorandum of Understanding	WHO	World Health Organisation
MUHAS	Muhimbili University of Health and Allied Sciences		
NGO	Non-Governmental Organisation		
NIMR	National Institute for Medical Research		

# ACKNOWLEDGEMENTS

---

“For the young mothers and fathers to be”

“For the future of Tanzania”

The completion of this document is the result of extensive consultations and collaboration with various representatives of the Ministry of Health and Social Welfare, the Regional Health Management Team, the National Aids Control Programme, Muhimbili University of Health and Allied Sciences, Muhimbili National Hospital, Development Partners such as DANIDA, German Development Cooperation, UNICEF, WHO, and, finally, interested organisations including Elizabeth Glaser Pediatric AIDS Foundation, CARE, and Family Health International.

CCBRT would like to thank all stakeholders for sharing their knowledge and expertise and providing valuable input to shaping the strategic direction of CCBRT Maternity Hospital and maternal health services in the Dar es Salaam region in the years to come.

# FOREWORD

---

“Each year in Tanzania, almost two and quarter million women give birth. Yet what should be an exciting and joyous time for a young family all too often ends in sadness. Around 13,000 women die from pregnancy related causes annually, another quarter of a million women suffer disabling conditions or impairments as a result of pregnancy and childbirth, and 45,000 newborns die. These maternal and infant mortality rates remain too high.

The Government of Tanzania is deeply committed to addressing the need for improved maternal and newborn health care and is striving to meet the health targets of the Millennium Development Goals. One initiative is the recently formed Public-Private Partnership between the Government of Tanzania and Comprehensive Community Based Rehabilitation in Tanzania (CCBRT) to establish a new maternity hospital. Serving as a referral facility for health care providers in Dar es Salaam, the CCBRT Maternity Hospital’s mission is to provide high quality health services where an increasing proportion of women and children survive without impairment. The new hospital will provide obstetric services for normal and emergency deliveries thereby preventing maternal and infant deaths, disease and disabilities, while offering family health education and comprehensive HIV/AIDS services.

Women of child bearing age are amongst the groups most vulnerable to the HIV virus and so HIV/AIDS services will be included as part of mother and newborn health care services. These integrated HIV/AIDS services will prevent the transmission of HIV from mother to child while providing care and treatment for HIV positive mothers and their families. As well as ensuring safe deliveries and timely HIV services for a population of over three million in the Dar es Salaam region, the hospital will serve as a major training centre for future generations of medics in Tanzania.

This project is of great significance and long term importance to Tanzania on several fronts: it will save hundreds of lives and prevent thousands of women and children from suffering disabling conditions each year, it will help prevent the spread of HIV/AIDS, and it will build vital expertise both for now and for the years ahead.

In this, the 21st Century, creating a new life should not result in any woman’s death. Alongside the Government of Tanzania and CCBRT, development partners are needed to join in this pivotal effort to reduce maternal and infant mortality. Together, it can be achieved.

Thank you for your interest in CCBRT Maternity Hospital.”



Professor David Homeli Mwakyusa  
Minister of Health and Social Welfare

# EXECUTIVE SUMMARY

---

Globally more than 500,000 women die in pregnancy and childbirth every year and an estimated four million newborns die annually in their first four weeks of life.<sup>1,2</sup> The risk of maternal death is estimated to be 50 times higher in sub-Saharan Africa compared to developed countries and this inequity is considered the largest discrepancy of all public-health statistics. These statistics are further compounded by the HIV epidemic.

Most maternal deaths occur in sub-Saharan Africa, and Tanzania is among the ten countries contributing to the majority of maternal deaths in the region. In Tanzania the estimated annual number of maternal deaths is 13,000, for the under-fives the number of deaths is 157,000 of which 45,000 are newborns. In committing itself to the three health-related Millennium Development Goals (MDGs) 4, 5 and 6, the Government of Tanzania (GoT) has agreed to reduce the under-five mortality by two-thirds and the maternal mortality ratio by three-quarters by 2015 and to halt and reverse the HIV/AIDS epidemic.

Tanzania has had some success in reducing the mortality of children less than five years old, but the neonatal and maternal mortality has remained persistently high and virtually unchanged over the last ten years. This is attributed to both health system and non-health system factors. The unmet need for reproductive health services and access to life-saving emergency obstetric care is enormous. HIV/AIDS prevention and care with anti-retroviral drugs (ARVs) is being expanded in the country, but implementation lags behind.

In the Dar es Salaam (DSM) region, the general need for additional obstetric and neonatal services is high. Serving approximately three million people there are only three municipal hospitals and the national referral hospital Muhimbili National Hospital which functions as the regional hospital for Dar es Salaam. Dar es Salaam region does not meet the UN process indicators for emergency obstetric care and there is a need for additional obstetric specialist services in a regional hospital as well as capacity development in lower levels of the health system.

In 2007 CCBRT entered into an agreement with the Government of Tanzania to take responsibility for running a fully fledged Regional Designated Hospital serving the population in the Dar es Salaam region.<sup>3</sup> The development of the Regional Designated Hospital will be in phases and CCBRT has decided to focus the first five-year strategy on developing maternal and newborn health capacity at CCBRT Maternity Hospital. The services will be established in conjunction with the existing CCBRT disability hospital and in unison they will form the Dar es Salaam Regional Designated Hospital. This strategic direction was motivated by the apparent need for additional obstetric services in the region, and by the wish of CCBRT to focus on the prevention of disabilities through provision of safe delivery services and early detection and treatment of children with impairments and vulnerable mothers.

It is therefore CCBRT's mission with this Maternity Hospital to provide high quality health services where women and children survive childbirth without impairment. The goal is to identify and support vulnerable mothers and newborns, and to assist with quality improvement and human resource development in the Tanzania health system.

CCBRT and the Government of Tanzania will achieve the goal through four strategic objectives:

- 1) To establish infrastructure, management and support service systems for maternity and neonatal hospital services;
- 2) To provide evidence-based maternal and neonatal health services of high quality;
- 3) To build capacity in hospital management and maternal and neonatal service delivery in the peripheral health system in the Dar es Salaam region;
- 4) To conduct innovative research and development of best practice in maternal and neonatal health.

---

<sup>1</sup> Ronsmans C, Graham W J. Maternal Mortality: Who, When, Where, and Why. *The Lancet Maternal Survival Series*, Lancet 2006; 368:1189-200

<sup>2</sup> Lawn J E, Cousens S, Zupan J. Neonatal Survival 1: 4 million neonatal deaths: When? Where? Why? *Lancet* 2005; 365: 891-900

<sup>3</sup> The Memorandum of Understanding (MoU) with the Government of Tanzania (GoT) stipulates the rights and responsibilities of CCBRT as well as the GoT. In the MoU the GoT commits itself to 1) the provision of annual bulk grants for staff salaries in line with the government salary scheme, as well as 2) the provision of land and 3) annual bulk grants for equipment, consumables and supplies in line with other regional hospitals. CCBRT commits itself to 1) the construction, and 2) management of the new Regional Designated Hospital, as well as 3) provision of primary and secondary services accessible to all economic groups based on availability of funds. In the MoU, the GoT stipulates furthermore CCBRT's right to implement a similar pricing scheme to CCBRT's Disability Hospital as well as CCBRT's right of employment, management and further development of staff. The CCBRT Board of Directors manages the CCBRT Regional Designated Hospital while the DCC and the MoHSW have a supervision and advisory role on matters pertaining to quality standards, professional ethics and National Policy, and implementation procedures as stipulated by the MoHSW. For more information on the MoU, please contact the CEO of CCBRT.

---

CCBRT is in a unique position to achieve the goal and strategic objectives since it is already an established referral institution with experience in hospital management, provision of quality health services and community programmes.

The strategy contains four components of which the first two concern establishing the infrastructure and the necessary management structures and support services in addition to the actual provision of health services at CCBRT Maternity Hospital. To avoid congestion at CCBRT Maternity Hospital, CCBRT has in collaboration with the Regional Health Management Team (RHMT) included a component focusing on capacity building in the peripheral health system in 24-hour comprehensive emergency obstetric care and hospital management. This will be guided by an initial situation analysis of the flow of obstetric patients in both private and government facilities that will lead to the development of a referral plan for the region. CCBRT will also include maternal and neonatal services in its existing community programme and conduct innovative research in collaboration with academic institutions.

HIV prevention and AIDS care will be included as an integral part of the maternal and newborn service package. Prevention of Mother-to-Child Transmission (PMTCT) during pregnancy, delivery and immediate postpartum by using prophylactic ARVs will be a routine part of care, while HIV infected mothers, their children and their partners will be provided with continued HIV/AIDS treatment and care, which is life-long. The implementation of the strategic plan will be lead by an implementation team including an obstetrician, a hospital director, fundraisers and a building advisor.

The total amount required for the establishment and operation of CCBRT Maternity Hospital over a period of five years is 16.7 million euro. For fundraising purposes, CCBRT Maternity Hospital is also known as Baobab Maternity Hospital.

*The activities planned for each strategic objective can be summarised as follows:*



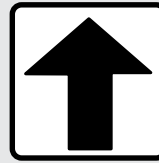
**1. Infrastructure, management, and support systems for maternal and neonatal hospital services established**

- Construct hospital infrastructure
- Establish support systems ie blood bank, laboratory
- Establish the Maternity Hospital Management Team
- Establish core department teams
- Establish service and management standards
- Establish minimum training requirements
- Develop external and internal capacity of health and administrative staff
- Establish effective monitoring and evaluation systems



**2. Evidence-based maternal and neonatal health services provided**

- Establish primary and secondary health care units
- Provide hospital based services: Antenatal Care (ANC), postnatal care, child welfare clinics, obstetric care of normal and complicated deliveries, neonatal care, maternal & neonatal intensive care, gynaecological services including post-abortion care, family planning, sexually transmitted diseases and HIV/AIDS related services including PMTCT and ARV treatment
- Establish and implement a Quality Assurance System
- Support the establishment of a referral system in DSM region including screening protocols and establishment of communication and transport systems
- Provide follow-up services for complicated cases through the CCBRT Maternal Health Community Programme
- Provide community education on pregnancy, use of insecticide treated bed nets, nutrition, breast feeding, PMTCT, HIV/AIDS, others



**3. Capacities in hospital management and maternal and neonatal service delivery in the peripheral health system in DSM strengthened**

- Conduct detailed situation analysis of maternal & neonatal care in lower-level health facilities: quality, human resources, infrastructure, equipment and supplies
- Create capacity development plans
- Develop essential health care package for obstetric and neonatal care
- Provide technical and managerial capacity development support
- Establish in-service training support to trained medical teams
- Establish Fellowship and in-service training programmes at CCBRT Maternity Hospital



**4. Innovative research conducted and best practice maternal and neonatal health developed**

- Establish academic partnerships
- Conduct operational research
- Publish and disseminate research results
- Establish a CCBRT library for health staff
- Establish an effective health management information system to collect national and organisational data

# INTRODUCTION

---

More than 500,000 women die in pregnancy and childbirth every year and an estimated four million newborns die annually in their first four weeks of life.<sup>4,5</sup> The risk of maternal death is estimated to be 50 times higher in sub-Saharan Africa compared to developed countries and this inequity is considered the largest discrepancy of all public-health statistics.

Maternal and Child Health has a high priority on the global agenda most prominently underlined in the Millennium Development Goals (MDG) 4 “To reduce child mortality” and 5 “To improve maternal health”. However, the progress towards achieving the MDGs is slow and for sub-Saharan Africa the prospects of achieving the goals by 2015 appears bleak with several countries experiencing an increase rather than a decline in child and maternal mortality. The unmet need for reproductive health services and life-saving access to emergency obstetric care is enormous.

Tanzania has had some success in reducing the mortality of children under five years of age, but the neonatal and maternal mortality has remained persistently high and virtually unchanged over the last ten years. This is attributed to both health system and non-health system factors.<sup>6,7</sup>

In the Dar es Salaam region, the general need for additional obstetric and neonatal services is high. Serving approximately three million people are only three municipal hospitals and the national referral hospital Muhimbili National Hospital (MNH), which functions as the regional hospital for Dar es Salaam. Of further concern is the poor quality of emergency obstetric care (EmOC) in the peripheral health system and a referral system that is not well defined. This results in unnecessary delays, patients’ by-passing lower levels of care and high levels of perinatal morbidity and mortality.

The HIV/AIDS pandemic is also of importance in relation to maternal and neonatal morbidity and mortality. Globally an estimated 30 million people are infected<sup>8</sup> and sub-Saharan Africa is the most affected continent. There are reports that the HIV epidemic has reached its peak

and some data even show a declining trend, also in some African countries. Tanzania is one of them, but due to population growth and the effect of life-prolonging drugs against the virus (anti-retrovirals), the numbers may rise again. HIV spreads from one person to the other mainly through unprotected sexual intercourse with an infected partner; further, through exposure to infected blood and from an infected mother to her unborn child in the uterus, during delivery or after birth from breast milk. ARVs can stop or reverse the immune-suppression in the AIDS stage, and ARVs can prevent the transmission of the virus from HIV positive mothers to their children during pregnancy and childbirth. There is no cure for AIDS, so prevention is of utmost importance.

Comprehensive Community-Based Rehabilitation in Tanzania (CCBRT) is a NGO that has worked with rehabilitation of people with disabilities in Tanzania since 1994. The organisation’s reputation for quality and poor services is impeccable. It is one of the eight special hospitals in Tanzania providing services for people with disabilities in the areas of eye care, treatment of cerebral palsy, plastic and reconstructive surgery, provision of orthopaedic appliances such as artificial limbs, physiotherapy and occupational rehabilitation. CCBRT also runs a well functioning community programme and has experience with community based AIDS care.

In 2007, CCBRT and the Dar es Salaam City Council signed a Memorandum of Understanding (MoU) stating that CCBRT will expand the current disability hospital into a Regional Designated Hospital for the Dar es Salaam Region. It was later agreed to adopt a phased approach starting with the establishment of maternal and neonatal services.

This is the strategic plan for the first five-year period focusing on establishment and integration of maternal and neonatal services in the CCBRT framework and the Dar es Salaam health system. It has been developed in consultation and collaboration with government and development partners and it follows current government policies (see References and Annex 2: List of people met). The focus is on survival and prevention of disability of

---

<sup>4</sup> Ronsmans C, Graham W J. Maternal Mortality: Who, When, Where, and Why. *The Lancet Maternal Survival Series*, *Lancet* 2006; 368:1189-2000

<sup>5</sup> Lawn J E, Cousens S, Zupan J. Neonatal Survival 1: 4 million neonatal deaths: When? Where? Why? *Lancet* 2005; 365: 891-900

<sup>6</sup> Campbell O M R, Graham J W. Strategies for reducing maternal mortality: getting on with what works. *The Lancet Maternal Survival Series*, *Lancet* 2006; 368: 1284-99

<sup>7</sup> Mbaruku G, Bergström S. Reducing maternal mortality in Kigoma, Tanzania. *Health Policy and Planning* 1995; 10(1):71-78

<sup>8</sup> UNAIDS 2007

---

both mother and newborn by establishing a maternity hospital providing high quality maternity and neonatal services based on accepted international evidence of best practices. In view of the high rate of HIV infection among pregnant women in Dar es Salaam (11% in 2008), the envisaged high quality maternity and neonatal services will include Prevention of Mother-to-Child Transmission (PMTCT) and provision of holistic HIV/AIDS care and treatment for all Antenatal Care (ANC) attendees, especially HIV infected women, their children and their partners.

Furthermore, CCBRT will support the Ministry of Health and Social Welfare (MOHSW) and development partners in their efforts to build capacity in emergency obstetric care in the surrounding health system and to establish a well functioning referral system for the Dar es Salaam region.

# 1 NATIONAL CONTEXT

## 1.1 GEOGRAPHY AND POPULATION

The United Republic of Tanzania is a union between Tanganyika and Zanzibar. It is the largest country in East Africa and administratively mainland Tanzania consists of 21 regions, 131 district councils and 11,000 villages. It is one of the least developed countries in Africa with approximately 25% of its 40 million inhabitants living below the poverty line. More than 80% live in rural areas and 20% are women of childbearing age. The total fertility rate is 5.7 children per woman and the life expectancy is 53 years for males and 56 years for females.<sup>9</sup>

## 1.2 MATERNAL AND NEONATAL HEALTH IN TANZANIA

In Tanzania maternal and child mortality is high. It is one of the ten countries in the world contributing to 66% of all global neonatal deaths and 61% of the global maternal deaths.<sup>10</sup> Although the last Demographic and Health Survey (DHS) in 2004 indicated a decline in child and infant mortality the success is tainted by persistently high neonatal and maternal mortality with little improvement during the last ten years. There are substantial urban-rural, regional and socio-economic differences in morbidity and mortality.

*Table 1: Maternal and child health indicators*

Indicator <sup>11</sup>	1999	2004	
Maternal mortality rate	529 <sup>12</sup>	578	Deaths per 100,000 live births
Under 5 mortality rate (1)	147	112	Deaths per 1,000 live births
Infant mortality (1)	99	68	Deaths per 1,000 live births
Neonatal mortality (2)	36	32	Deaths per 1,000 live births
Immunisation level		71 %	Children 12-23 months
Under-weight (2)		22%	Weight for age
Average age first birth		19.4	Years
One ANC visit		94%	
Four or more ANC visits		62%	
Births in health facilities	4%	47%	
Births assisted by skilled personnel		46%	
Proportion of health centres with emergency obstetric equipment available		5.5%	
Postnatal care attendance		13%	
Unmet need for family planning		22%	
HIV infection rate of antenatal care attendees		11%	Proportion females aged 15-49 yrs
Infant HIV infection rate		15%– 40%	Proportion HIV+ infants (< 1yr) born to HIV+ mothers

9 TDHS 04/05, Census 2002

10 World Health Report 2005

11 Sources: 1. Poverty and Human Development Report 2007

2. Demographic and Health Survey 2004/05

3. Health Sector Performance Profile Report, MOHSW, 2007

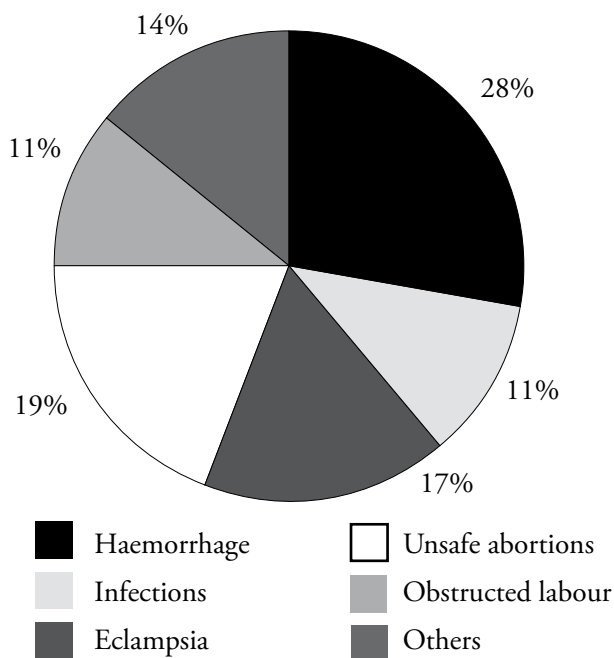
4. HIV/AIDS/STI Surveillance Report No. 20, NACP, MOHSW, 2007

12 TDHS 1996

### 1.2.1 Maternal health

The maternal mortality ratio in Tanzania is estimated to be 578 per 100,000 live births.<sup>13</sup> This translates to approximately 13,000<sup>14</sup> women dying annually due to pregnancy related causes. Additionally 250,000 women suffer from reproductive illness or impairments. The three major direct obstetric causes of deaths are haemorrhages, eclampsia and infections. It is estimated worldwide that abortions contribute to 20% of maternal deaths. In Tanzania abortion is illegal and the magnitude of the problem is not known. Post abortion care is only offered in 5% of health facilities in Tanzania.<sup>15</sup>

Figure 1: Global causes of maternal deaths<sup>16</sup>



Almost all pregnant Tanzanians make one ANC visit and two-thirds make four or more ANC visits. However the quality of the services provided is inadequate, only 65% of women have their blood pressure measured and 54% have blood samples taken for haemoglobin estimation and syphilis screening.

Skilled attendance during delivery is the single most important factor for survival of mother and child. Despite the high ANC coverage only half, 47%, of all births occur at health facilities and a skilled health worker assists in 46% of the births. It is disturbing that this is a decline over time from 53% in 1991-1992.<sup>17</sup> The caesarean section rate is 3%, which is below the 5-15% recommended by the WHO. Postnatal Care is not well utilized with only 13% of women examined within two days of giving birth.<sup>18</sup>

Major preventable causes of impairment in women related to childbirth are obstructed and prolonged labour, postpartum haemorrhage, eclampsia and maternal sepsis.

### 1.2.2 Neonatal health

The neonatal mortality remains high in Tanzania, 32 deaths per 1,000 live births, and accounts for 29% of under-five mortality and 47% of infant mortality.<sup>19</sup>

Up to half of neonatal deaths occur in the first 24 hours of life and 75% of them arise in the first week of life. The causes of neonatal mortality are closely linked to the quality of care during pregnancy and immediately afterwards. In Tanzania the three main causes of neonatal death are asphyxia, preterm birth and infections. The newborn care component of the safe motherhood programme has until recently been quite neglected.

A number of causes of impairment are directly linked to the quality of health care during pregnancy and the neonatal period. Major common causes of impairments in newborns are preterm deliveries (28%) often due to maternal infections and malaria resulting in intrauterine foetal death (IUFD) and intrauterine growth restriction (IUGR), birth asphyxia (23%), neonatal infections (26%) and tetanus (7%).

13 TDHS 04/05

14 The United Republic of Tanzania, Ministry of Health and Social Welfare. National road map strategic plan to accelerate reduction of maternal, newborn and child deaths in Tanzania 2008-2015

15 The United Republic of Tanzania, Ministry of Health and Social Welfare. National road map strategic plan to accelerate reduction of maternal, newborn and child deaths in Tanzania 2008-2015

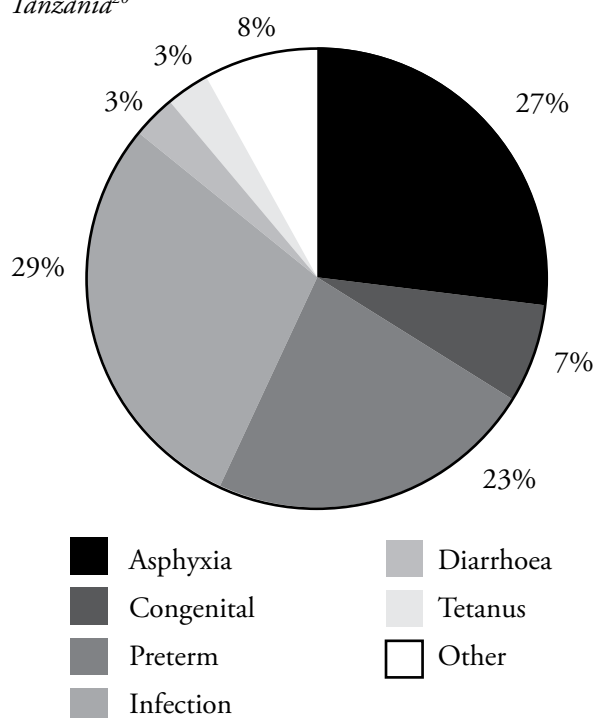
16 World Health Report 2005

17 TRCHS

18 The United Republic of Tanzania, Ministry of Health and Social Welfare. National road map strategic plan to accelerate reduction of maternal, newborn and child deaths in Tanzania 2008-2015

19 The United Republic of Tanzania, Ministry of Health and Social Welfare. National road map strategic plan to accelerate reduction of maternal, newborn and child deaths in Tanzania 2008-2015

Figure 2: Estimated causes of neonatal deaths in Tanzania<sup>20</sup>



### 1.2.3 HIV/AIDS and pregnancy

Less than 35% of HIV positive pregnant mothers in Tanzania are estimated to be receiving PMTCT treatment. From that, it is also realistic to surmise that if the mothers are not receiving the treatment the number of HIV exposed infants receiving ARV prophylaxis is also low. In recent years PMTCT has been expanded to Reproductive Child Health (RCH) clinics in over 2,000 health facilities and better results are expected soon.

Tanzania's National AIDS Control Programme (NACP) was established in the mid 80s, when only prevention was possible. With the arrival of ARVs, PMTCT was started in 2001. In 2004, in collaboration with partners, NACP initiated an HIV and AIDS Care and Treatment Plan, aiming to put 440,000 AIDS patients on ARVs by the end of 2008. NACP estimated that by the end of 2007<sup>21</sup> the number of people living with HIV infection (PLHIV) in mainland Tanzania was 2,636,785, of whom 527,357 are estimated AIDS cases in need of treatment with ARVs. Currently only 135,696 patients, 27% of the

people in need, are receiving the life-prolonging ARV treatment.

## 1.3 THE TANZANIAN HEALTH SYSTEM

Tanzania has decentralized many government functions through *decentralization by devolution*. Local Government Authorities are now responsible for delivering public services including local health services.

The district is the most important administrative and implementation unit for public services. For this reason the MOHSW in collaboration with the Prime Minister's Office - Regional Administration and Local Government (PMO-RALG) through the Health Sector and Local Government reforms are currently strengthening the district health services, making the districts the focus for health development. Primary health care services in dispensaries, health centres and district hospitals form the base of the pyramidal structure of health care services.

The health sector consists of three levels: council health services, regional health services and national level services.<sup>22</sup> The regional health services consist of regional referral hospitals and a regional health management team. Tanzania has 55 district hospitals owned by the Government, 13 designated district hospitals owned by Faith-Based Organisations (FBO) and 86 other hospitals at a first referral level. There are 18 Regional Hospitals, functioning as referral hospitals for district hospitals and eight consultancy and specialized hospitals in the country.<sup>23</sup>

Regional hospitals are the last referral point in a region and are expected to have 175-400 beds in nine wards, i.e. surgical, medical, pediatric, obstetrics and gynecology, theatre outpatient, isolation, labour, antenatal/postnatal. Administratively they fall under the Regional Health Management Teams. In districts or regions where there is a well-functioning Voluntary Agency/FBO hospital, the government may designate such hospital as district or regional hospital and will then provide staff grants, bed grants or other grants, in line with government policies and guidelines.

20 TDHS 04/05

21 NACP Report number 1, Implementation of HIV/AIDS Care and Treatment Services in Tanzania

22 Health Sector Strategic Plan III "Partnerships for Delivering the MDGs" July 2009-June 2015

23 Source: <http://www.moh.go.tz/health%20facilities.php> (from 2000)

### 1.3.1 Health system in the Dar es Salaam region

In 2009, the Dar es Salaam region has a population of 3,040,118 of which 1,515,536 are females.<sup>24</sup> The health system consists of 94 public health facilities, three municipal hospitals, in Ilala, Kinondoni and Temeke respectively, five health centres and 84 dispensaries. In addition, a wide range of private facilities exists. The health system differs from other regions in that Muhimbili National Hospital serves both as a national and regional referral hospital. It is the biggest hospital in Tanzania and receives patients predominantly from the three municipal hospitals and other private hospitals in Dar es Salaam as well as from upcountry.

Table 2: Current health facilities in Dar es Salaam

Facilities	Government	Private	Total
Hospitals	5	23	28
Health Centres	5	24	29
Dispensaries	84	305	389
<b>Total</b>	<b>94</b>	<b>352</b>	<b>446</b>

Muhimbili National Hospital has bed capacity for 272 obstetric and gynecological patients and an average bed occupancy of 128%<sup>25</sup> underlining the general problem of limited number of hospital beds for the population of Dar es Salaam. About 40% of all patients seen have no proper referral and over 90% of all patients come from Dar es Salaam.

Each of the three municipal hospitals treat about 1,500–1,800 clients per day, and all three are suffering from congestion in both outpatient and inpatient departments. Main reasons for consultation at the three hospitals and the five health centres are malaria, pneumonia, AIDS, upper respiratory tract infection, diarrhoea, urinary tract infection, skin diseases, anaemia, outbreaks of infectious diseases (like cholera) and worm infestations. These are all conditions that could and should to a large extent be treated routinely at dispensary and health centre level by clinical officers and nurses. The situation underlines the need to establish a more stringent referral system to avoid overload in municipal hospitals as well as at MNH.<sup>26</sup>

### 1.3.2 Health system challenges

The Joint External Review of the health sector 2008 indicates that reduction in maternal mortality will require more resources as well as improved utilization of existing resources in health care delivery. With the health sector reforms there has been improvement in planning and management at district level and availability of funds, supplies and essential drugs. There is however unequal distribution of planning and management capacity.

The geographical coverage of health facilities is generally good but the range and quality of services provided vary. With 40% of health services delivered by non-state actors the collaboration and coordination between public and private facilities is essential.

Tanzania is experiencing a health worker crisis with 30% of the positions defined by the Government Staffing Norms unfilled. The shortage is as high as 70% in some cadres. (Annex 3: Human Resource National Requirements). There are, however, large regional differences with Dar es Salaam experiencing the smallest shortage. Recruitment and distribution of health staff is the responsibility of the MOHSW and PMO-RALG in collaboration with the Public Service Management Office. The total annual intake in pre-service training institutions has been increasing over the past four years with enrolment of 3,500 students in 2007.<sup>27</sup> Unfortunately the total output from health training institutions in the past years has not been sufficient to cover the needs. The shortage of skilled human resources is a major barrier to scaling up obstetric services of high quality. In addition to the shortage in numbers there is also a need for better qualified, better distributed and better managed health personnel.

The maternal, neonatal and child health services are exempted from cost sharing but there is a lack of clarity in how to effect the exemption mechanisms. This inadequate implementation of pro-poor policies creates unequal access to quality health services.

Access to EmOC is crucial for handling complicated deliveries. While 64.5% of public hospitals provide

24 NBS regional projections of 2002 census

25 MNH annual report 2006/07

26 Regional Health Management Team Dar es Salaam

27 The United Republic of Tanzania, Ministry of Health and Social Welfare. Human resources for health strategic plan 2008-2013

Basic Emergency Obstetric Care, only 5.5% of public health centres are providing Comprehensive Emergency Obstetric Care.<sup>28</sup> There is a lack of skilled health staff, equipment and functioning blood banks at most hospitals which results in an overall low caesarean section rate and inadequate poor-quality EmOC.

Health providers have inadequate skills in newborn resuscitation and care and the infrastructure, equipment and referral structures for neonates are weak.

The referral system has serious challenges including limited number of ambulances, unreliable logistics and communication systems, and inadequate community based facilitated referral systems.

#### 1.4 GOVERNMENT POLICY FRAMEWORK

Maternal, newborn and child health (MNCH) are major priorities in the health sector and national policies, as illustrated by specific attempts to address maternal and newborn health challenges through the national health policy, health sector reforms and health sector strategic plan. HIV is being addressed as a multi-facetted problem with a nationwide multi-sectoral approach under the Tanzania Commission for AIDS (TACAIDS).

Important background policy documents such as Vision 2025, the National Health Policy, Health Sector Reform, Sector-Wide Approach, MMAM and National Multi-sectoral Strategic Framework for HIV and AIDS (NMSF) are described in Annex 4 while the most relevant aspects for maternal and neonatal health are mentioned here.

##### 1.4.1 Millennium Development Goals

Three of the eight MDGs are health-related and MDGs 4 and 5 focus on maternal and child health.

- MDG 4: Reduce child mortality
  - Reduce by two-thirds the under-five mortality rate between 1990 and 2015
- MDG 5: Improve maternal health
  - Reduce by three-quarters the maternal mortality ratio

- Achieve universal access to reproductive health
- MDG 6: Combat HIV/AIDS, malaria and other diseases
  - Have halted and begun to reverse the spread of HIV/AIDS by 2015

For Tanzania the MDG targets are to reach an under-five mortality of 54 per 1,000 live births and a maternal mortality ratio of 193 per 100,000 live births. There is hope that if the recent mortality trends continue, MDG 4 will be reached before 2015 although the neonatal mortality has not decreased significantly. For MDG 5 there is little progress and there is a need to intensify efforts to deliver effective maternal health interventions.

Tanzania has adopted the above MDGs and the UNGASS target on reducing transmission of HIV from mother to child. The government of Tanzania has committed itself to fight the HIV/AIDS epidemic through a multi-sectoral approach. In 2001 TACAIDS was formed and recently the second National Multi-sectoral Strategic Framework on HIV and AIDS 2008–2012 was defined. There are signs that the HIV epidemic has passed its peak. However, much needs to be done to prevent ongoing transmission and improve the care and treatment of those already infected.

##### 1.4.2 MKUKUTA

The National Strategy for Growth and Reduction of Poverty (NSGRP), known in Kiswahili as the MKUKUTA (Mkakati wa Kukuza Uchumi na Kupunguza Umaskini Tanzania) provides the direction for achievement of the MDGs and is informed by Vision 2025. It is a framework for all government development efforts and for mobilizing resources. It covers the five-year period from 2005 to 2010.

The strategy identifies three clusters of broad outcomes. Health is part of the second cluster, improvement of quality of life and social well-being where improving MNCH is a major priority area. One of the goals clearly outlined is to improve the survival, health and well-being of all children and women, especially of vulnerable groups. MDGs 4 and 5 specify operational targets related

---

28 The United Republic of Tanzania, Ministry of Health and Social Welfare. National road map strategic plan to accelerate reduction of maternal, newborn and child deaths in Tanzania 2008-2015

to maternal and child health, monitoring progress towards achieving these goals.

#### **1.4.3 Health sector reforms and HSSP III**

Since 1994, Tanzania has conducted a number of major health sector reforms aimed at improvement of access, quality and efficiency in health service delivery by strengthening the district health services as well as strengthening and reorienting secondary and tertiary service delivery in hospitals in support of primary health care.

The Health Sector Strategic Plan III 2009-2015 concentrates on eleven strategies concerning diseases, management and interrelated issues. It elaborates on approaches towards quality, equity, gender and governance. The strategies included are strengthening district health services, hospital reforms, role of the central ministry and central support systems for health, human resources for health, health sector financing, public-private partnerships, sector coordination and HIV/AIDS programming.

Maternal, newborn and child health has a high priority in the strategy addressed by focusing on reproductive health interventions as defined in the One Plan for MNCH (see below). Another relevant strategic area is the accessibility of referral hospital services to patients who need advanced care through an adequate referral system and installation of measures to prevent by-pass. The quality of care will improve by quality assurance units in hospitals and increased numbers and improvement of the quality of human resources for health.

Public-private partnerships are seen as important for achieving the goals of the health sector.

#### **1.4.4 The “One Plan” and MNCH partnership**

The National Roadmap Strategic Plan To Accelerate Reduction of Maternal, Newborn and Child Deaths in Tanzania 2008-2015, also referred to as the “One Plan”, is Tanzania’s national response to the renewed commitment to improve maternal, newborn and child care. The primary purpose of the “One Plan” is to ensure improved coordination of interventions and delivery of services across the continuum of care.

The plan provides guidance to the implementation of all maternal, newborn and child interventions in Tanzania

in terms of prioritization of interventions, decision making in terms of budget allocation, influencing policy change, fostering partnerships, facilitating access to quality care and scaling up of low cost and effective interventions. The communities will be more involved in MNCH to improve behaviour and practices with regard to reproductive health. The implementation of the “One Plan” is coordinated by the Tanzania Partnership for Maternal, Neonatal and Child Health (TPMNCH) which was officially launched in April 2007.

#### **1.4.5 National Multi-Sectoral Strategic Framework for HIV and AIDS**

The NMSF states that its mission is to guide and safeguard the intensification and scaling up of quality HIV/AIDS prevention, care, treatment and support, and impact mitigation programmes and interventions within a framework of a well-coordinated national multi-sectoral response programme led by Central Government, anchored at the Local Government Councils, rooted in communities and actively supported by partnership with all concerned stakeholders.

The NMSF’s goals are related to creating an effective environment for all actors, reduce the HIV transmission in the country, reduce morbidity and mortality due to HIV and AIDS and improve the quality of life of PLHIV and those affected by HIV and AIDS, including orphans and other vulnerable children. For that it will provide transparent and accountable leadership, a clear monitoring and evaluation (M&E) system and fund, support, as well as coordinate feasible plans to realise NMSF’s mission in close collaboration with the health sector.

On prevention of mother to child transmission of HIV it aims to reduce the transmission of HIV from mothers to their children, during pregnancy, birth and/or breast-feeding and ensure entry into care and treatment for mother and baby. Priority entry points include antenatal, maternity and postpartum care, family planning, HIV care and treatment (for adults and children) as well as voluntary counselling, testing and treatment of sexually transmitted infections. Additional entry points as appropriate include child immunization, gender-based violence, youth-friendly services, community-based outreach, drug abuse counselling and treatment services, support groups of PLHIV, tuberculosis, well-baby follow-up, post-abortion care and workplace issues.

## 2 RATIONALE & PROBLEM ANALYSIS

### 2.1 PERINATAL HEALTH IN DAR ES SALAAM REGION

Maternal health in Dar es Salaam is characterized by a high proportion of deliveries that take place in health institutions with an increase from 85% in 1991-92 to 86% in 1996 to 90% in 2004.<sup>29</sup> Despite the high level of institutional deliveries high maternal and neonatal mortality rates indicate poor quality of care within the hospitals. The maternal mortality in Dar es Salaam is 572/100,000 live births<sup>30</sup> comparable to the national figure of 578/100,000 live births.<sup>31</sup> MNH alone had a maternal mortality ratio of 598 per 100,000 live births for 2006/07, but in 2007/08 there were 106 deaths out of 7,486 deliveries which translates into a MMR of approximately 1,400/100,000 live births.

The table below shows causes of maternal deaths in Muhimbili National Hospital 2007.

*Table 3: Causes of maternal deaths at MNH 2007*

Diagnosis	Absolute number	Percentage
Anemia	27	25
Eclampsia	25	23
HIV/AIDS	23	21
Severe Malaria	8	8
Puerperal Sepsis	8	8
PPH	5	5
Puerperal Psychosis	5	5
Rupture Uterus	1	1
Others	4	4
<b>Total</b>	<b>106</b>	<b>100</b>

A maternal mortality study 1990-95 found that in Dar es Salaam, the majority of women had been seen by a doctor before death. The most common symptoms reported by the mothers themselves were abdominal pain, fever, convulsions and vaginal bleeding. In about half of the cases the time lag from symptoms to maternal death was more than 12 hours, thus giving enough time for transport if the means of transport is available. The

majority of deaths occur after unexpected complications, emphasizing the need for availability of emergency care.

The three municipal hospitals received 758 referrals from lower level institutions in 2007 and MNH received 2,307 maternal referrals. This is 15% of the expected number of complicated deliveries in the Dar es Salaam region.<sup>32</sup> All three municipal hospitals provide comprehensive EmOC, but not always for 24 hours, and they are struggling with capacity limitations both in terms of equipment and human resources.

*Table 4: Obstetric Referrals MNH and Municipal Hospitals, 2007<sup>33</sup>*

	Referral In	Referral Out
MNH	N/A	N/A
Amana	112	1,814
Mwa'mala	546	98
Temeke	100	395
<b>Total</b>	<b>758</b>	<b>2,307</b>

Annex 5 shows updated data on the levels of obstetric care in Muhimbili National Hospital and the three municipal hospitals. There is a wide variation in key indicators between the hospitals in the Dar es Salaam region. The rate of caesarean section is very high, 42%, in MNH while in the municipal hospitals it is under the recommended level of 5-15%. Workload is generally high with a large amount of daily deliveries in particular in Amana (50). Capacity problems and congestion can therefore possibly partly explain the 9% of all deliveries from this hospital being referred to MNH. The rate of registered complications in the municipal hospital is generally low (2-12%) which is probably not the reality but a case of underreporting. MNH had in 2004 a complication rate of 22%, which in contrast is high and possibly a consequence of the lack of capacity in the peripheral health system (a large number of obstructed labour being referred to MNH). The case fatality rate (CFR), the major quality of EmOC indicator, ranges between 3-14% which is much higher than the internationally accepted 1%. Although a formal situation analysis has not been

29 TRCHS 1999, TDHS 2005

30 Urassa et al. 1996

31 WHO 2004

32 Expected deliveries in 2007: 106,113, complicated deliveries 15% of 106,113 = 15,917

33 Regional Health Management Team, Dar es Salaam

made it must be suspected that delayed care seeking and delayed referral to relevant level of care is contributing to the high maternal morbidity and mortality despite the high levels of institutional deliveries.

The stillbirth rate at MNH is 78/1,000 live births and data from the MNH labour ward indicates that stillbirth accounted for almost 80% of the perinatal deaths in the year 2004.<sup>34</sup> One-third occurred intrapartum. At MNH over one third of the women (36%) having stillbirths were admitted with audible fetal heart beats. 52% of the stillbirths occurred in women who had been referred suggesting that the delay was at the second referral level. As seen in table 5 below, the neonatal mortality is high. This is partly a reflection of the fact that nearly all premature neonates are brought to MNH, there being no other neonatal units in the municipal hospitals.

Table 5: Neonatal admission and discharge at MNH from July 2007 to June 2008

Category	Admission	Discharge	Death
Total	7,675	4,528	1,837 (24%)
Orphan	31	31	3
Abandoned	17	15	2

A perinatal assessment performed in 2004 supports the data presented here which show unacceptable gaps in provision of perinatal care services in Dar es Salaam public health institutions. The root causes included inadequate maternity and neonatal infrastructure, shortage of skilled staff at almost all levels, deficiency of necessary equipment and supplies, a poorly-established referral system and absence of formal functioning networking between the major stakeholders of perinatal care in the region.

In summary, recommended initiatives:

- To build human resource capacity through on-the-job training in standard maternal and perinatal care;
- To recruit enough staff in all municipal hospitals enabling them to provide 24-hour comprehensive obstetric care services;
- To establish a basic neonatal care unit at each municipal hospital in order to reduce congestion of

neonates at the MNH neonatal unit;

- To establish better delivery infrastructure at all municipal hospitals as well as at the Magomeni and Mnazi Mmoja health centres to reduce work overload of deliveries at MNH;
- To streamline the referral system by establishing a functioning formal networking relationship between MNH and municipal health institutions;
- To ensure that all municipal hospitals and health centres have functioning ambulances and telephone or radio communications to facilitate timely referral of patients.

## 2.2 UN PROCESS INDICATORS FOR EMERGENCY OBSTETRIC CARE SERVICES IN DSM REGION

Emergency Obstetric Care is a terminology used to describe whether any given facility has the adequate skills and equipment to manage obstetric complications. It is divided in Comprehensive and Basic Emergency Obstetric Care, see box 1.

### Box 1: Definition of emergency obstetric care<sup>35</sup>

Emergency Obstetric signal functions are defined as:

1. Administration of parenteral antibiotics
2. Administration of parenteral oxytocic drugs
3. Administration of parenteral anticonvulsants for pregnancy induced hypertension
4. Performance of manual removal of placenta
5. Performance of removal of retained products (e.g. vacuum aspiration)
6. Performance of assisted vaginal delivery (e.g. ventouse, forceps)
7. Performance of surgery (e.g. Caesarean section) &
8. Performance of blood transfusion.

Facilities are divided into those that provide 'basic' emergency obstetric care (BEmOC) and 'comprehensive' (CEmOC).

- If a facility has performed each of the above first 6 functions in the past three months, it qualifies as providing basic EmOC.
- If it has provided all 8 of the functions, it qualifies as a comprehensive EmOC facility.

<sup>34</sup> Urassa D P et al., Dar es Salaam Region perinatal care needs assessment, March 2006

<sup>35</sup> Generally accepted definition, originally formulated by AMDD (Averting Maternal Death and Disability), a programme established by Columbia University in 1990. See [www.amddprogram.org](http://www.amddprogram.org)

The geographical distribution of facilities is important since time is crucial to the survival of women with complications. Table 6 shows the estimated average time interval from onset to death for the major obstetric complications, in the absence of medical intervention.

*Table 6: Estimated average interval from onset to death for major obstetric complications, in the absence of medical intervention<sup>36</sup>*

<b>Complication</b>	<b>Hours</b>	<b>Days</b>
Postpartum Haemorrhage	2	
Antepartum Haemorrhage	12	
Ruptured uterus		1
Eclampsia		2
Obstructed labour		3
Infection		6

Issued by UNICEF, WHO and UNFPA in 1997, the UN process indicators provide information about whether there are enough facilities providing life-saving EmOC services, whether the EmOC facilities are equitably and geographically distributed, whether women with obstetric complications are using those services, and whether the quality of care provided is adequate. They are used as part of needs assessments, for monitoring progress in maternal mortality reduction programmes, and as a policy tool to help spur systematic change in countries. Table 7 overleaf shows the definitions and recommended levels of the indicators and compares them to the actual levels in Dar es Salaam.

---

<sup>36</sup> Guidelines for monitoring the availability and use of obstetric services, WHO

Table 7: UN process indicators for Dar es Salaam Region

UN Process Indicator	Definition	Recommended level	Actual level in Dar es Salaam	Need Met
Number of EmOC services available	Number of facilities that provide EmOC	Minimum 1 Comprehensive EmOC facility + 4 Basic EmOC facilities for every 500,000 people	With a population of approximately 3 million the required level is 6 CEmOC facilities and 24 BEmOC facilities	No
Geographical distribution of EmOC facilities	Facilities providing EmOC well-distributed at sub-national level	Minimum: 100 % of sub-national areas have the minimum acceptable numbers of Basic and Comprehensive EmOC facilities	Illala population: 693,285 Kinondoni population: 1,189,424 Temeke population: 836,827	No
Proportion of all births in EmOC facilities	Proportion of all births in the population that take place in EmOC facilities	Minimum 15 %	Expected number of annual deliveries is 106,113 in 2007. <sup>37</sup>  61,845 deliveries, 58%, took place in MNH and the three municipal hospitals	Yes
Met need for EmOC services	Proportion of women with obstetric complications treated in EmOC facilities	At least 100 % [Estimated as 15 % of total expected births]	Of the 106,113 expected deliveries 15% (15,917) will be expected to incur a complication  In 2007 only 3,686 complications (23%) were reported by MNH and the three municipal hospitals	No
Caesarean sections as a percentage of all births	Caesarean deliveries as a proportion of all births in the population	Minimum 5 % Maximum 15 %	The number of caesarean sections in facilities in 2007 was 6,585, which is 6% of the expected no. of deliveries (106,113)	Yes
Case fatality rate	Proportion of women with obstetric complications admitted to a facility that die	Maximum 1 %	233 died and 3,686 complicated deliveries were reported. This is a case fatality rate of 6.3%, which is significantly higher than the UN target.	No

The major UN quality of care indicator is the case fatality rate.<sup>38</sup> In this context, the term means the number of maternal deaths among women with obstetric complications in the health facility being studied. International data indicate that there is a wide gap between CFRs in developed countries and those in developing countries.

While the process indicators for Dar es Salaam region have not been formally described by the MOHSW, it is evident from the provisional analysis presented above that the need for emergency obstetric care is not met in the Dar es Salaam region and there is an urgent need for quality improvement initiatives.

37 NBS census 2002 projections

38 The number of deaths from the condition of interest, as compared to the number of people with that condition.

# 3 COMPREHENSIVE COMMUNITY BASED REHABILITATION IN TANZANIA

## 3.1 THE ORGANISATION

CCBRT, a Tanzanian Non-Governmental Organisation, was established in 1994 in response to the needs of people with disabilities in and around Dar es Salaam and the lack of accessible services to them. Since its inception, CCBRT has grown rapidly into a large and comprehensive rehabilitation programme. Today it comprises two Community Based Rehabilitation (CBR) Programmes in Dar es Salaam and Moshi, a Disability Hospital, and an active International Training Programme. CCBRT is the largest indigenous provider of disability and rehabilitation services in the country, providing quality rehabilitative services to 120,000 people with disabilities and their caregivers each year.

This includes persons with:

- Physical impairments (cerebral palsy, congenital deformities such as clubfoot, cleft lip and palate)
- Visual impairments
- Hearing impairment
- Epilepsy
- Intellectual impairment
- Obstetric fistula

Over the past years, CCBRT's target area has expanded continuously from the urban and peri-urban areas of Dar es Salaam and Moshi (Kilimanjaro Region) to underserved areas such as Pwani, Morogoro, Mwanza, Tanga and the island of Zanzibar. CCBRT now serves a total population of 10 million.<sup>39</sup>

CCBRT's overall vision is to prevent disabilities and improve the quality of life of those who live with impairments. CCBRT believes that every person has equal rights to access services and participation in all aspects of life. Making quality services accessible to those in need as well as empowerment of persons with disabilities to participate fully in all aspects of life has been the driving force of CCBRT's work. CCBRT has been very successful in increasing the reach of specialized quality services by developing human resource capacities of other service providers in Tanzania as well as throughout Africa, by implementing an active training programme for specialised medical and rehabilitation staff, and by

operating a mobile outreach programme to serve people with disabilities in underserved rural areas.

The existing service portfolio of CCBRT includes:

1. Comprehensive medical and rehabilitation services at CCBRT Disability Hospital:
  - a. **Rehabilitation Department:** outpatient services, orthopaedic, plastic/reconstructive, neurosurgical surgeries, Vesico-Vaginal Fistula surgery, physiotherapy, occupational therapy, speech and language therapy, production of orthopaedic appliances, as well as mobility and positioning devices;
  - b. **Eye Department:** outpatient services, sight restoring/improving surgery for conditions like cataract, glaucoma, trauma, tumour and trachoma, low vision therapy, provision of low vision devices and low cost spectacles (outsourced);
  - c. **Mobile Outreach Programme:** awareness-raising, screening, treatment, referral and transport to CCBRT Disability Hospital, or provision of surgery in collaboration with satellite units.
2. Community-based rehabilitation services through CBR Dar es Salaam and Kilimanjaro:
  - a. **Health services:** physiotherapy, occupational and speech and language therapy during home visits and at support units, health education to caregivers, mobility and orientation training for permanently blind adults, detection and referral of people with disabilities to CCBRT Disability Hospital and other specialized facilities, follow-up of clients from the disability hospital, provision of epilepsy drugs, training of government nurses on early identification of newborns and children with impairments;
  - b. **Education programme:** enrolment and follow-up of children with disabilities in mainstream and special schools, provision of school materials, support to school facility construction and accessibility adjustments, teacher training on disability issues and sign language;
  - c. **Livelihood programme:** inclusion of persons with disabilities in the labour market through the

---

<sup>39</sup> CCBRT's mobile outreach programme covers a radius of 350 km around Dar es Salaam.

establishment of a recruitment office at CCBRT<sup>40</sup>, referral of persons with disabilities to micro-finance programmes, operation of day care centres to enable mothers of children with disabilities to generate income;

- d. **Social inclusion activities:** sports days to foster inclusion of persons with disabilities in society.
3. Training of specialised staff through the International Training Programme:
    - a. **Reconstructive surgery training:** Vesico-Vaginal Fistula;
    - b. **Ophthalmology training:** general and paediatric ophthalmology training, vitreoretinal (VR) surgery training, modern cataract surgery training (small incision surgery and phacoemulsification surgery training), theatre, ward and general nursing training;
    - c. **Maintenance training:** maintenance of hospital equipment;
    - d. **Disability and rehabilitation training:** mobility and orientation training, practical training of physiotherapists and occupational therapists, training on disability, rehabilitation and inclusive development strategies.

To create greater impact, CCBRT, is active in awareness raising and lobbying of mainstream development partners to provide services inclusive of people with disabilities.

Affordability and accessibility of services are major barriers to quality services, be it disability services or maternal health care. People of poor background face these barriers in particular.<sup>41</sup> CCBRT's aim is to break these barriers and make quality services accessible to the poor. CCBRT therefore implements a pro-poor policy: Self-funded clients subsidise the cost of services to those who cannot pay or who can only partially afford services. The implementation of this policy has earned CCBRT a good reputation throughout Tanzania.

CCBRT gives priority to collaboration and working in partnership to achieve its objectives. CCBRT liaises closely with national and international NGOs, government institutions and facilities, international development partners, training institutions, religious

groups, and stakeholders from the corporate sector. CCBRT will expand its partner portfolio further for the establishment of CCBRT Maternity Hospital (Annex 6: CCBRT Collaboration Chart).

### 3.2 GOVERNANCE AND MANAGEMENT

Since its inception in 1994 CCBRT has steadily developed and refined its management systems.

CCBRT has a strong Board, bringing in expertise from different fields such as law, education, finance, management, health and rehabilitation. It sets the overall policies, financial and operational guidelines, supervises programme implementation, and appoints the senior management team. Next to regularly scheduled Board meetings, the Chairman and Vice Chairman provide ongoing consultative support to the CCBRT management.

The CCBRT management team is responsible for the organisational management, programme planning, implementation, monitoring, internal review and evaluation. It consists of the Chief Executive Officer, the CCBRT Disability Hospital Director and the CCBRT Community Programmes Director. The team is complemented by sub-managers responsible for the running of CCBRT's programmes (Annex 7: CCBRT Organisational Structure).

CCBRT's tradition of delegation of power allows for needs-based programming and budgeting, as well as competency-based and timely decision making.

The uniform administrative, financing and accounting system coordinated by the CCBRT Headquarters allows for harmonized work processes throughout the organisation, as well as timely narrative and financial reporting. Since its establishment, the CCBRT Headquarters has thereby realized maximum accountability and transparency.

To maintain the quality of services at all times, the CCBRT Headquarters operates an internal control unit, conducting regular programme reviews. CCBRT's auditors check the administrative and financial

40 The recruitment office is operated by RADAR Recruitment, a Tanzanian recruitment company in the frame of a joint economic empowerment programme implemented in collaboration with local partners in Dar es Salaam region.

41 Data from TDHS 2004/05 indicates that only 31% of women of the lowest wealth quintile are likely to be assisted by a skilled birth attendant, versus 87% of women of the highest wealth quintile in Tanzania.

accountability, client satisfaction, quality of services and work processes. Recommendations by CCBRT's auditors directly feed into programme adjustments.

Additional external financial audits are conducted on an annual basis and external programme evaluations at least once every four years. During the first three years of the establishment of maternal and newborn health services, CCBRT will conduct annual reviews of services.

### 3.3 VALUES

In its operation, CCBRT adheres to the following principles:

#### ***Working in partnership***

CCBRT is dedicated to working in partnerships; building on each other's strengths and comparative advantages, complementing each other rather than duplicating work is key to CCBRT's understanding of partnership. CCBRT links up with and collaborates closely with other NGOs, governmental bodies, research institutions as well as community groups. CCBRT will nurture and extend its partner network to create national synergies, share knowledge and expertise and learn from others.

#### ***Applying a comprehensive approach to achieve impact***

CCBRT has a holistic approach to its work. This includes comprehensive service delivery combining specialist hospital care with community-based initiatives that develop individual, family and community capacities.

#### ***Working in and with the community***

CCBRT recognises the importance of working with individuals, families and communities to ensure a continuum of care. CCBRT therefore puts extra efforts into providing community-based health care services. CCBRT will furthermore support the strengthening of linkages between communities and relevant levels of the health system.

#### ***Making services accessible and affordable to poor and vulnerable groups***

CCBRT is committed to providing equitable access to quality health services. CCBRT gives special attention to the poor, adolescents and most vulnerable groups, e.g. people with disabilities, pregnant women with HIV/

AIDS infection and newborns. CCBRT implements a pro-poor policy where funds from self-funded patients are used to subsidise the cost of treatment for poorer patients. Patients at CCBRT pay a one-off "package price" according to their ability to pay. The service price includes assessment, medication, X-ray and laboratory, surgery and consumables, accommodation, food, and two months follow-up services free of charge. This measure provides security for patients.

#### ***Ensuring quality in all activities***

Quality of services is one of CCBRT's key principles upheld by using internationally and nationally accepted standards. Quality assurance, regular audits and informed decisions are the cornerstone of CCBRT's quality improvement initiatives. CCBRT will work closely with national and international academia to ensure ongoing integration of best practice strategies and standards in health into its operation and programmes.

#### ***Valuing and respecting client's rights***

CCBRT's clients are at the centre of all work. CCBRT is committed to uphold a patient-friendly environment where individuals are treated with respect and dignity and needs are recognized and catered to at high quality. CCBRT regularly reviews its services to ensure maintenance of high service standards and patient satisfaction.

#### ***Ensuring transparency and accountability at all times***

Insurance of accountability and transparency of all organisational action is key to CCBRT's activities. CCBRT operates transparent and professional financial and administrative systems, and follows clearly outlined service protocols and professional standards. In all areas, CCBRT adheres to Tanzania's laws, as well as health and educational policies. CCBRT makes its strategic planning, narrative and financial reporting accessible to all its partners and other interested parties. Provision of bi-annual narrative and financial reports against its strategic plan to all its partners is part of CCBRT's efforts to ensure transparency and accountability.

## 4 STRATEGIC OUTLINE

The Government's Health Policy and subsequent policy documents on reproductive and child health and on HIV/AIDS include a number of strategies for specific health interventions to improve maternal and neonatal health. Several of the strategies for reaching the various MDG targets come together in this strategic plan to establish a Regional Designated Hospital in Dar es Salaam. The choice of starting the expansion of CCBRT's existing pro-poor Disability Hospital with maternal and neonatal health services is therefore logical, relevant and in line with national and international priorities. The inclusion of HIV/AIDS services is mandatory, as through sexuality there is a strong link between HIV and maternal and neonatal health.

### 4.1 VISION AND MISSION

#### *Vision*

CCBRT's vision is one of a Tanzania where the right to health is ensured through equal access to quality health care and where women deliver their children in a safe and caring environment.

#### *Mission*

CCBRT's mission is to provide high quality health services where an increasing proportion of women and children survive childbirth without impairment.

#### *Goal*

CCBRT's goal is to provide high quality maternal and neonatal health services, to identify and support vulnerable mothers and newborns, and to assist the Tanzania health system with quality improvement and human resource development.

This goal will be achieved through four strategic objectives, which are:

1. To establish infrastructure, management and support service systems for maternity and neonatal hospital services;
2. To provide evidence-based maternal and neonatal health services of high quality, including HIV-related preventative, prophylactic and treatment services;
3. To build capacity in hospital management and maternal and neonatal service delivery in the peripheral health system of the Dar es Salaam region;
4. To conduct innovative research and development of best practice in maternal and neonatal health.

CCBRT is in a unique position to achieve the goal and strategic objectives since it is already an established referral institution with experience in hospital management, provision of quality health services and community programmes.

While CCBRT has agreed with the Government of Tanzania to become in time a fully fledged regional hospital for Dar es Salaam, a phased approach has been adopted whereby the first five years will focus on establishing maternal and neonatal health services. The services will be established in conjunction with the existing disability hospital and in unison they will form the Dar es Salaam Regional Designated Hospital.

The strategic direction towards serving as a disability hospital and as a regional referral hospital, and the initial focus on establishing maternal and neonatal services, is founded on CCBRT's wishes to focus on prevention of disabilities and early referral and treatment of those in need.

CCBRT supports the view that Dar es Salaam needs more than one regional-level hospital and will lobby for the Government of Tanzania to upgrade additional hospitals and/or construct new ones to become regional hospitals as well. Alternatively, Muhimbili National Hospital should continue serving part of the population of Dar es Salaam.

### 4.2 TARGET GROUP

CCBRT will provide comprehensive maternal & newborn health referral services to the Dar es Salaam region.

Direct beneficiaries of the CCBRT Maternity Hospital and Community Programme are:

- Pregnant women, mothers and newborns receiving comprehensive care for reproductive health-related problems, including HIV prevention and care;
- The public of Dar es Salaam who will benefit from the maternal and neonatal health interventions in the innovative community programme and from an effective referral plan for the region;
- Health staff participating in training at CCBRT as the hospital will become a teaching institution for health workers;

- Management staff and in-charges benefiting from training in hospital management and organisation of patient flow;
- Community Health Workers (CHW) improving their capacity in recognizing danger signs during pregnancy and in newborns as well as early referral to qualified facilities.

### 4.3 STRATEGY

#### 4.3.1 Overall strategy

The main strategy to achieve the goal and objectives is to expand the existing disability hospital into a Regional Designated Hospital serving as a referral hospital for the lower level public and private health institutions in the Dar es Salaam region. The region is large and a recent perinatal study<sup>42</sup> found that there is a need for more than one regional hospital. CCBRT supports this notion and will actively advocate with the Government of Tanzania to share the responsibility of providing referral services between several institutions.

In the expansion of the disability hospital a phased approach has been adopted to ensure a healthy and sustainable development in financial and management capacity. It is also of importance not to compromise the existing disability services, as CCBRT is one of the few organisations in Tanzania providing this type of specialised services. A careful phased approach will ensure that CCBRT has the capacity to implement and manage the expansion into a Regional Designated Hospital. Therefore, the initial five-year period will focus on establishing maternal and neonatal services including PMTCT and related HIV services for outpatients in conjunction with the existing disability hospital. That means that the new services will be included gradually until being fully operational by the end of 2014.

A MoU will be developed between CCBRT and Muhimbili National Hospital defining the specifics of the gradual inclusion. It is most likely that CCBRT initially will take over referrals from Kinondoni and, subsequently, from other selected municipal hospitals. Whether the responsibility of referred cases will continue to be shared between CCBRT and MNH will be defined in collaboration with all involved stakeholders.

CCBRT Maternity Hospital will be autonomous in status but work in close collaboration with the Government of Tanzania, private practitioners and development partners. CCBRT will follow government policies, rules and regulations for the health sector and link up to national and international initiatives like the “White Ribbon Alliance” and the “Deliver now for Women and Children Campaign”. Interventions will be evidence-based and build on best practices.

Recognising the interdependence with the surrounding health system, the two-year process of constructing the necessary infrastructure will be used to create strong linkages with the peripheral health facilities, the RHMT and development partners. The main strategies in the construction phase include building capacity in emergency obstetric care in the peripheral health system and developing a referral plan for the Dar es Salaam region. CCBRT will support these initiatives but expects coordination with other partners under the leadership of the RHMT.

Since CCBRT is an established health institution in Tanzania, it is in a favourable position to utilize existing structures both in terms of hospital and human resource management, provision of pro-poor services and community services. There is potential for a unique internal referral plan that will ensure early detection, treatment and rehabilitation of children with disabilities such as clubfeet, cerebral palsy, congenital cataract, spina bifida and hydrocephalus and women with vesico-vaginal fistulas for surgical and conservative treatment (Annex 8: Internal Referral Chart).

Maternal and newborn mortality can only be effectively reduced and disabilities prevented if maternal and newborn health services are extended in quality and number throughout Tanzania. CCBRT wishes to contribute to a sustainable development of widely available and accessible quality maternal and newborn health services through training and capacity development. CCBRT is committed to assisting in the development of human resources by offering in-service training for midwives, assistant medical officers and doctors in comprehensive emergency obstetric care, neonatal care, integrated PMTCT and HIV care, and hospital management.

42 Urassa D P et al., Dar es Salaam Region perinatal care needs assessment, March 2006

Beneficiaries will initially primarily be health workers from CCBRT Maternity Hospital and the satellite facilities but in time a fellowship training programme for other health workers will be established.

#### ***4.3.2 Capacity building in the peripheral health system***

Being a referral institution CCBRT will be dependent on the performance of the surrounding health system. The level of services, and quality provided in the periphery, will have an influence on the patient flow, patient load and categories of patient received at the regional hospital. One of the main concerns is that the hospital will be congested with patients and not be able to uphold high levels of quality due to overload. This situation is seen at MNH with a bed occupancy above 100%, which seriously compromises quality of care as indicated by high institutional mortality and morbidity ratios.

Therefore, capacity building in provision of 24-hour comprehensive emergency obstetric care and hospital management will be aimed at in a number of so called CCBRT “satellite” institutions. Satellite institutions are the major health facilities referring patients to the CCBRT regional hospital i.e. primarily the three municipal hospitals. This component will be initiated during the infrastructure construction phase. In 2009 CCBRT will employ one hospital director and one obstetrician who will support the implementation of the maternity and neonatal services at CCBRT and work with the satellites in capacity building.

This strategy has the dual advantage of CCBRT becoming familiar with and building a relationship with the institutions which will refer patients to the hospital. To ensure continuity and sustained high levels of quality of care CCBRT will lobby with satellite institutions and the RHMT to ensure that core clinical teams are exempted from regular staff rotation schemes. This will ensure maintenance of capacity and on-the-job training for newcomers in satellite institutions.

As part of the training programme for health staff in both the CCBRT satellites and the CCBRT Maternity Hospital system there will be regular tuition in EmOC each year. These sessions will focus on hands-on and teamwork training using mannequins in simulated situations of obstetric emergencies. During the set up phase of the training component, CCBRT will

conduct an assessment of various training packages. One training programme that will be considered is the “Advanced Life Savings Skills in Obstetrics” developed by the American Academy of Family Physicians. This has shown considerable improvement of EmOC and clinical outcomes for obstetric complications in other training locations in Tanzania.

While CCBRT will play an active role to achieve comprehensive emergency obstetric care of sufficient quality in major health institutions in Dar es Salaam, this task is not achievable alone and should be a joint effort between the Government of Tanzania and development partners under the leadership of the RHMT. A strong collaboration has been established between CCBRT and the RHMT and the Regional Medical Officer has already shown commitment and leadership in the process.

#### ***4.3.3 Referral system***

One of the cornerstones of a health system is a well-functioning referral system to minimize delays during complicated pregnancies and deliveries. Unfortunately a referral plan for DSM does not exist and the consequences are obvious when analysing data from MNH. Patients simply bypass the lower level of care, going directly to the referral hospital, which results in congestion and poor quality of care.

CCBRT will advocate that, under the leadership of the RHMT, development partners assist health facilities in the development of a referral plan for the DSM region. The first step in developing a plan is a comprehensive situation analysis of the flow of obstetric patients in the region including both government and private institutions. CCBRT is well-known for their pro-poor services. However the hospital will serve as a referral institution and therefore, in line with current government policy, patients who do not follow the referral system will be charged by-pass fees.

As part of the implementation of an effective referral plan in the region, CCBRT will try to ensure that responsible staff in satellite health institutions referring patients to CCBRT Maternity Hospital receive an induction on criteria for referral. In addition, CCBRT will enter into dialogue with the RHMT and municipal hospitals on development of quality improvement initiatives ensuring that the right patients are referred at the right time. One such initiative is piloting the effect of designated staff

with the job description of screening patients eligible for referrals, which has the dual advantage of quality improvement and regulation of patient flow.

All the Municipal Hospitals already have a functioning ambulance service and therefore CCBRT will support the existing network with one back-up ambulance based at CCBRT. CCBRT will not expect to receive patients from MNH.

CCBRT Maternity Hospital will not only receive obstetric referrals as emergencies but also patients identified with complications during pregnancy at lower levels of care. As part of the referral plan for the region, CCBRT will support the agreement and division of responsibilities of patient categories between primarily MNH and CCBRT Maternity Hospital.

As previously mentioned, CCBRT will develop an internal referral plan to ensure early detection, treatment and rehabilitation of children and women with disabilities.

#### ***4.3.4 Comprehensive HIV/AIDS care and treatment***

Prevention of mother-to-child transmission of HIV and care and treatment of HIV positive mothers and their family members will be provided as an integrated part of comprehensive maternal and neonatal health services. Throughout the continuity of care there are a number of entry points for integrated HIV/AIDS-related services that CCBRT Maternity Hospital will utilize (Annex 9: Entry points for HIV/AIDS comprehensive care).

CCBRT will promote that at each first point of contact between the client and a health worker at CCBRT Maternity Hospital, be it midwife, nurse or doctor, the possibility of HIV infection is taken into account. Therefore, as an example during ANC it will be explained to all pregnant women what they can expect of the antenatal services, and also that testing for HIV is now a routine part of the examinations throughout Tanzania. In addition during individual contact with the examining midwife or doctor provider-initiated testing and counselling (PITC) will be promoted.

Besides being assessed for their HIV status, clients will be screened for signs and symptoms of illness, including AIDS, TB, malaria and Sexually Transmitted Infections (STIs) and when indicated referral will be arranged to the respective clinics, e.g. STI clinic, TB clinic, HIV Care

and Treatment Clinic (CTC). Prophylaxis for AIDS-related opportunistic infections (OIs) will be provided together with routine anti-malarials and tetanus toxoid immunizations. However, since the CCBRT Regional Designated Hospital does not yet have an internal medicine department, patients requiring admittance will be referred to other appropriate health institutions.

ARV prophylaxis and protection of newborns against becoming HIV-positive will be provided according to national PMTCT guidelines (Annex 10: Comprehensive care for PMTCT). Eligibility for general treatment with ARVs will be determined through clinical staging (according to WHO) or CD4 count. In a large hospital, such as CCBRT Maternity Hospital intends to become, a separate CTC is necessary, especially to deal with the annually (cumulative) growing numbers of HIV-infected persons. The clinic also needs to offer Voluntary Counselling and Testing of partners of the HIV+ women as part of a continuum of care, and provide services for HIV+ men and the newborn children who may become positive when PMTCT has not been effective. Linking with home-based care will be ensured, as this is essential to support the life-long taking of ARV drugs for all those suffering from AIDS.

#### ***4.3.5 Community component***

CCBRT will use the structures in the already existing community programmes to develop a community maternal and neonatal health component. The component will focus on public awareness-raising on newborn care, danger signs, HIV-status and appropriate health-seeking behaviours as determined in the essential health care package and referral plan for the DSM region.

Another important function of the community programme is the referral of vulnerable women and children, including those who are preterm and HIV-positive, from the regional designated hospital to the community support centres. They will not substitute the primary health care functions in the dispensaries but will provide additional support to women and newborns in vulnerable physical or social situations and ensure that, if needed, they are referred to the appropriate level of the health system for treatment.

#### ***4.3.6 Human resource recruitment and management***

CCBRT will be responsible for the recruitment, management, and development of human resources at

all levels of the CCBRT Maternity Hospital, while the Government of Tanzania will provide a block grant to cover the payment of salaries.<sup>43</sup> Staffing levels will follow the Ministry of Health and Social Welfare's guidelines for Regional Hospitals, but where deemed necessary, CCBRT can choose to hire additional staff.

To attract sufficient qualified staff of all necessary cadres, CCBRT will use different recruitment channels, including the recruitment structures of the Public Service Management Office and MOH&SW for selected positions,<sup>44</sup> advertisements in newspapers and professional magazines, local recruitment companies, training institutions, as well as advertisement of selected high level positions internationally. CCBRT aims to attract highly qualified Tanzanian health staff working abroad by offering appealing retention packages.

The application of the phased approach to the establishment and delivery of maternal and newborn services at CCBRT Maternity Hospital will safeguard the consolidation of work processes, adherence to service protocols and standards, as well as sound establishment and running of administrative and management systems.

CCBRT sees the continuous development of staff capacity as a matter of primary importance. CCBRT will establish regular in-service training for health staff of all cadres to uphold service protocols and standards and actively support external training in particular for management staff. All working clinical staff will undergo regular comprehensive emergency obstetric care training and staff in the maternal and neonatal intensive care units will undergo specialised training in management of critical patients. Systematic capacity development will be done under the auspice of the CCBRT Human Resources Manager, in close cooperation with the hospital director and department heads.

#### **4.3.7 Quality assurance**

CCBRT will work closely with national and international academic bodies to ensure ongoing integration of best practice strategies and standards in maternal and newborn health into its operation and programmes.

CCBRT will uphold its reputation for providing high quality care through a quality assurance system supported by a functional data collection system. CCBRT hospital will implement an internal quality assurance system and a Quality Assurance Unit will be established. Government standards such as the Tanzania Quality Improvement Framework, Standard Operating Procedures (SOPs) and treatment guidelines, including the National Guidelines for the Management of HIV and AIDS will be used and supplemented where necessary.

Maternal and perinatal death audits will be conducted within 24 hours of any death and will form the backbone of the system, together with regular criterion-based audits. Quality Assurance (QA) will focus on improvement of emergency obstetric care and consist of monitoring of the emergency obstetric care signal functions, reviews of records, registers and partograms, client interviews, client flow analysis and case review guidelines. Laboratory functions will also be included in QA procedures.

On an individual level the human resource management system of performance-based payment will link quality with recognition. Other recognition models will be explored.

## **4.4 SERVICES AND CAPACITY OF CCBRT MATERNITY HOSPITAL**

### **4.4.1 Health Services in CCBRT Maternity Hospital**

CCBRT Maternity Hospital will focus on high quality maternity services for normal deliveries as well as life-saving comprehensive emergency obstetric care for complicated deliveries. While obstetric services form the core service, CCBRT Maternity Hospital will provide comprehensive reproductive health services which also include gynaecology and treatment of sexually transmitted diseases, including HIV/AIDS prevention and treatment with ARVs at a HIV/AIDS CTC.

The hospital will receive the following patient categories:

- Emergency and non-emergency referrals from lower level facilities. These patients are exempted from service fees.
- Emergency self-referrals who for ethical and medical reasons cannot be rejected. The social department

43 Co-Operation Agreement between the Dar es Salaam City Council and the Registered Trustees of CCBRT

44 CCBRT will strive for the establishment of a Memorandum of Understanding with the MOHSW whereby CCBRT reserves the right to interview assigned staff and veto in case a proposed staff assignment is deemed unsuitable.

---

will in a similar manner to current practice in the disability hospital establish if patients can or cannot pay for services. This, of course, is done after the patients have received the necessary care.

- Bypass-patients who choose to utilize the services of CCBRT Maternity Hospital in return for a bypass fee.
- Private patients paying to receive additional luxuries such as a private room.

Continuity of individual care is important to reduce maternal as well as neonatal deaths throughout the lifecycle (adolescence, pregnancy, childbirth, the postnatal period and childhood) and also between care-giving institutions. CCBRT Maternity Hospital will ensure continuum between the outpatient and inpatient services as well as the specialist services provided in the disability hospital. The community component will ensure continuity from clinical setting to outpatient to community setting.

While CCBRT Maternity Hospital wants to complete the continuum of care, the phased approach implies that, until paediatric services have been established in the next phase, CCBRT will hand over the continued care to other health care providers, once the children are beyond the neonatal stage. CCBRT will seek to establish referral agreements and procedures for paediatric patients with relevant health institutions. HIV-positive families will remain under the care of the CTC.

The services provided at CCBRT Maternity Hospital will thus be provided in six departments: gynaecology and obstetrics, neonatal care, anaesthesia and intensive care, family planning, sexually transmitted infections, and HIV care and treatment. An extensive list of health services offered in the departments can be found in Annex 11. Table 8 overleaf illustrates how CCBRT seeks to ensure the continuity of care over time from before pregnancy to the postnatal period and between clinical inpatient services, outpatient services and community services.

Table 8: Continuity of care

	BEFORE PREGNANCY	PREGNANCY	BIRTH	POSTNATAL MOTHER AND CHILD
<b>CLINICAL CARE</b>	<p><b>Reproductive health</b></p> <p>Case management of sexually transmitted infections</p> <p>Post-abortion care</p>	<p><b>Antenatal care</b></p> <p>Management of complications in pregnancy</p> <p>Prevention of mother-to-child transmission of HIV (from week 28)</p>	<p><b>Childbirth care</b></p> <p>Skilled obstetric care at birth and essential care for neonates and resuscitation</p> <p>Prevention of mother-to-child transmission of HIV</p> <p>Comprehensive Emergency Obstetric Care and immediate emergency care for newborn babies</p>	<p><b>Newborn care</b></p> <p>Case management of neonatal illness and birth injuries</p> <p>Extra care for preterm babies</p> <p>Finish PMTCT</p> <p>Care of mothers and children with HIV</p> <p>Early identification and treatment of congenital abnormalities and disabilities</p>
<b>OUTPATIENT SERVICES</b>	<p><b>Reproductive health</b></p> <p>Family planning</p> <p>Prevention and management of sexually transmitted infections and HIV</p> <p>Folic acid and iron</p>	<p><b>Antenatal care</b></p> <p>Four-visit focused package based on national guidelines including Voluntary Counselling and Testing services</p> <p>Tetanus immunization</p> <p>Prevention of mother-to-child transmission of HIV (from week 28)</p> <p>Special attention to high-risk pregnancies and management of complications in pregnancy</p>		<p><b>Postnatal care</b></p> <p>Promotion of healthy behaviours for mother and baby</p> <p>Early detection and referral of complications</p> <p>Extra attention to preterm babies</p> <p>Prevention of mother-to-child transmission of HIV, including appropriate feeding</p> <p>Family planning</p> <p><b>Newborn and child health</b></p> <p>Vaccinations</p> <p>Malaria insecticide-treated bednets</p> <p>Nutrition including vitamin A and zinc</p> <p>Care of children with HIV</p> <p>Integrated management of childhood illness including the newborn</p>
<b>FAMILY AND COMMUNITY CARE</b>	<p>Adolescent and pre-pregnancy nutrition, including salt iodisation</p> <p>Education</p> <p>Prevention of HIV and sexually transmitted infections</p>	<p>Healthy home behaviours for women in pregnancy, reduction of workload, recognition of danger signs, emergency preparedness</p> <p>Community behaviours, emergency transport, and funding schemes</p>		<p>Healthy home behaviours including exclusive breastfeeding, hygienic care of cord and skin</p> <p>Extra care for preterm babies and vulnerable mothers</p> <p>Referral to facility for case management of diarrhoea, pneumonia, severe malnutrition, neonatal sepsis and malaria</p> <p>Recognition of possible opportunistic infections, including TB</p>

#### 4.4.2 Capacity of CCBRT Maternity Hospital

One of the major challenges in the development of CCBRT Maternity Hospital is estimating a capacity and size that is small enough to manage and finance but big enough to cater to the expected number of patients.

Table 9: Expected population and number of births<sup>45</sup>

	Total population	Male population	Female population	Expected number of births
2009	3,040,118	1,524,582	1,525,536	105,328
2010	3,118,132	1,562,543	1,555,589	104,184
2011	3,194,903	1,599,850	1,595,053	103,012
2012	3,270,235	1,636,421	1,633,834	101,362
2013	3,344,031	1,672,184	1,671,847	99,820
2014	3,416,073	1,707,068	1,709,005	97,865

In 2014 the population of Dar es Salaam is expected to be 3.4 million and the annual number of deliveries in Dar es Salaam region 97,865. Internationally accepted WHO guidelines state that it is expected that 15% of deliveries in a population will endure a complication and that 1/3<sup>46</sup> of these will need treatment in a facility providing comprehensive emergency obstetric care. Therefore it is estimated that Dar es Salaam region will have 15,000<sup>47</sup> complicated deliveries of which 5,000 need comprehensive emergency obstetric care.<sup>48</sup> Approximately 1% will need intensive care.

In the initial chapters of this strategic plan, it is seen that currently MNH receives 15% of complicated deliveries in the region as referrals from the municipal hospitals. Based on the strategy to improve the capacity of the municipal hospitals to provide comprehensive obstetric care it is estimated that CCBRT Maternity Hospital will have the capacity to handle at least 15% of complicated deliveries in the DSM region – approximately 2,250 annual deliveries.<sup>49</sup> The capacity building component of the peripheral health system in provision of 24-hours comprehensive obstetric care and the development of a referral plan for the region will ensure that the remaining 12,750 annual complicated deliveries can be safely handled at lower levels of care. It will however take considerable time and efforts to ensure the capacity is in

Table 9 below shows the demographic projections for the Dar es Salaam region based on the 2002 census. The table shows the expected population and expected number of annual births.

place in the periphery and, furthermore, there might be referrals received from other facilities than the municipal hospitals. To ensure adequate access, CCBRT Maternity Hospital is calculating on 2,500 referred patients a year.

In addition, it is expected that approximately 50% (4,000) of the total number of delivery patients annually will choose to bypass the referral system to deliver in CCBRT Maternity Hospital. The amount of the bypass fee will serve as a mechanism for CCBRT to regulate the influx of patients. CCBRT Maternity Hospital will also provide opportunities for private patients wishing to pay for additional services and privacy in one to four bed rooms. The annual number of private patients is expected to be 1,500.

Estimations must be interpreted with caution, but based on the above calculations, CCBRT Maternity Hospital aims at 8,000 deliveries a year. In summary it is expected that of those approximately 30%, 2,500 patients, will be referred obstetric complications from the peripheral health system, and 50%, 4,000 patients, will be patients bypassing the referral system, choosing to deliver in CCBRT Maternity Hospital. The remaining 20%, 1,500 patients, will be private patients that choose to pay for additional luxuries, privacy and services. In the construction and management of the hospital, in order to

<sup>45</sup> National Bureau of Statistics. Census 2002. Regional and District Projections. Dar es Salaam

<sup>46</sup> Assuming that minimum 5% of deliveries require a caesarean section

<sup>47</sup> 15% of total deliveries. 15% of 100,000 = 15,000

<sup>48</sup> 33% of 15,000 = 5,000

<sup>49</sup> 15% of 15,000 = 2,250

accommodate for fluctuations between the three patient categories, there will be a built-in flexibility between categories and between maternity and gynecological wards.

The level of neonatal admissions in Muhimbili is very high partly due to the lack of services provided in the periphery. CCBRT will include capacity building in neonatal care for the CCBRT satellites. Other partners

such as Save the Children are implementing large kangaroo motherhood programmes. Until the effect of these programmes fall into place CCBRT will not be in a position to totally decongest MNH's neonatal ward but will contribute towards it with 20 neonatal beds and an estimated 150 admissions in ICU. CCBRT will collaborate with the Kangaroo Motherhood Care (KMC) programme under Save the Children and may choose to expand the infrastructure and capacity there with a room suitable for this type of care.

*Table 10: Key estimates of CCBRT Maternity Hospital*

Item	Sub item	Estimated Number
Annual deliveries		8000
Daily number of deliveries		22
	Annual referrals in	2,500 (30%)
	Daily referrals in	7
	Annual bypass patients	4,000 (50%)
	Daily bypass patients	11
	Annual private patients	1,500 (20%)
	Daily private patients	4
No. of delivery beds		8
No. of operation theatres		4
No. of maternity beds		60
	ANC	20
	Postnatal	40
No. of private maternity beds	In 1-bed rooms	8
	In 4-bed rooms <sup>50</sup>	16
No. neonatal beds		20
No. of gynecological beds		30
ICU maternity beds		5
ICU neonatal beds		5
Annual ANC visits <sup>51</sup>		2,200
Daily ANC visits <sup>52</sup>		88

As such it can be seen that CCBRT Maternity Hospital will be a 144-bed hospital (including obstetric, gynecological, neonatal and ICU services) expecting to receive 8% of the estimated 100,000 annual deliveries in the region. These estimations and the planned capacity of the hospital can be subject to adjustments by the Implementation Team upon the initial situation analysis of maternity services in government as well as private institutions.

50 Can be flexible between bypass patients and private patients

51 5,500 bypass and private patients, minimum 4 visits

52 250 working days

## 4.5 OUTPUT AND ACTIVITIES

This section describes the output and activities under each of the five strategic objectives.



### ***4.5.1 To establish infrastructure, management and support service systems for maternity and neonatal hospital services***

There are four outputs under this strategic objective:

- a. Maternity hospital constructed;
- b. Service support systems established;
- c. Human resources recruited, trained and managed;
- d. Hospital management functioning.

#### ***4.5.1.1 Activities related to output 1a: Maternity hospital constructed***

The infrastructure of CCBRT Maternity Hospital will provide space for all maternal, neonatal and HIV/AIDS facilities, support services as well as management, administration and training facilities. The hospital facility will adhere to the standards and requirements outlined by the Service Guidelines of the Government of Tanzania.

In the design of the hospital, considerations as to a natural patient flow is essential. At the reception patients will be screened and directed towards the outpatient department, the antenatal ward, gynaecological ward or delivery room. From the delivery room there will be quick and easy access to theatre facilities and if necessary intensive care. As EmOC and saving the lives of mothers and newborns is the essential wish of CCBRT, reception of referred patients is a crucial consideration in the design of the hospital. Based on the structural requirements, CCBRT will employ an architect and a building advisor to draw the constructions and supervise the process.

The layout of the infrastructure is designed in such a way that space is available to allow for future expansion of hospital services, including paediatrics and internal medicine, thereby completing the service portfolio of a fully fledged Regional Designated Hospital. The design of the new facilities will be similar to the existing CCBRT Disability Hospital. CCBRT will ensure that all buildings are accessible to people with disabilities. The further activities under this output include a ground survey, obtaining architectural, engineering services and building permits, establishing water and sewage systems,

supervision by the architect and building advisors.

The selection of building and engineering companies will be based on a tender process and possibly CCBRT will work with several construction companies to ensure timely completion of the hospital facilities. The construction will be supervised by the maternity hospital architect. In addition, CCBRT will utilize the services of a building advisor to provide guidance at key stages during the design and construction of the new facilities. The employment of the CCBRT building advisor allows for maximum quality adherence, cost efficiency, and timely implementation of the construction. CCBRT foresees a construction period of one and a half to two years from the approval of the construction.

#### ***4.5.1.2 Activities related to output 1b: Service support systems established***

CCBRT Maternity Hospital will establish the following key support services:

- Blood bank
- Laboratory
- Pharmacy
- Health engineering unit
- Transport/workshop
- Registration and medical records

Where possible and logical, the existing support units of the Disability Hospital will also serve CCBRT Maternity Hospital. This is for instance the case for the health engineering unit and transport/workshop facilities. The blood bank will serve both the disability and maternity services but be physically located at CCBRT Maternity Hospital due to the importance of quick access in case of emergencies. The main laboratory will be at CCBRT Maternity Hospital where it will also provide the necessary investigations for the HIV/AIDS care and treatment centre. The establishment of clinical support systems will be supervised by the Implementation Team but where necessary CCBRT will solicit further technical support.

With regards to registration and medical records, CCBRT already operates a centralised service and patient management database linking up the disability hospital with the community programme. CCBRT will expand the existing database to capture all relevant client data at CCBRT Maternity Hospital. The database will allow for (1) patient follow-up and prevention of complications,

(2) learning processes that will lead to improving service protocols, (3) service systems impact measurement (4) Monitoring of Quality of Care indicators and (5) general research.

#### **4.5.1.3 Activities related to output 1c: Human resources recruited, trained and managed**

CCBRT will use a phased approach to the staffing of CCBRT Maternity Hospital. In the first phase, CCBRT will revise the management structures according to the organisational chart portrayed in Annex 7 and establish an overall Hospital Management Team of the Regional Designated Hospital supported by two management teams of CCBRT Maternity Hospital and the Disability Hospital respectively. The CCBRT Human Resource Manager will in close alignment with the CCBRT Chief Executive Officer support the human resource recruitment process for these key positions.<sup>53</sup>

In the second phase CCBRT will recruit the heads for the departments and units, followed by the recruitment of core department teams. As CCBRT will phase in its services, the recruitment of department teams will focus on establishing well-functioning core teams, which will be expanded over time with the increasing demand. Since CCBRT Maternity Hospital and CCBRT Disability Hospital will have some common support system functions like procurement, hospital maintenance and the car park logistics, CCBRT will expand respective departments by hiring additional staff members to manage the increasing work-load.

Before initiating services at CCBRT Maternity Hospital, the Hospital Management Team will establish minimum training requirements for each cadre and staff member and conduct - where required in collaboration with external trainer institutions - initial training for in-charges and their teams in management, service provision systems and protocols, service standards, customer care, as well as utilisation of finance and accounting systems. Clear job descriptions will be developed and put in place for all staff recruited. All clinical staff in the obstetric department will undergo training in comprehensive EmOC. One option that will be considered is the ALSO training course in EmOC. Where appropriate, newly recruited staff members will undergo in-service training at existing departments of CCBRT Disability Hospital

to ensure transfer of skills and knowledge and uniform application of systems and procedures in particular within administration and procurement.

A continuous training programme will be established to ensure a sustained high level professionalism of nurse-midwives and doctors in particular.

#### **4.5.1.4 Activities related to output 1d: Hospital management functioning**

With CCBRT receiving Regional Designated Hospital status, CCBRT will review the management structures within the organisation to ensure uniform direction in the delivery of quality health and rehabilitation services. The Dar es Salaam Regional Designated Hospital consisting of the disability and maternity services will have an overall Regional Designated Hospital Director, heading the sub-management teams of CCBRT Disability Hospital and the new CCBRT Maternity Hospital (Annex 7: CCBRT Organisational Structure).

The Director of the CCBRT Regional Designated Hospital will be responsible for the overall management, strategic direction, quality assurance of services, and harmonization of the Regional Designated Hospital services, operation and policies. He/she leads the hospital management teams and reports directly to the CCBRT Chief Executive Officer. He/she is supported by the Head of Quality Assurance Unit, responsible for overseeing the quality and efficiency of medical and paramedical operations, continuously reviewing of clinical standards and coordinating all aspects of educational and research activities of medical staff..

The CCBRT Maternity Hospital Director will be responsible for the management of clinical services in coordination with the heads of medical departments and in-charges, coordination of all operational tasks, implementation and enforcement of hospital by-laws and policies, as well as administrative and financial rules and regulations. He/she co-ordinates the functioning of the medical and nursing staff in collaboration with the Head of Nursing Services (Matron) and is supported by the Head of Administration and Finance, responsible for overall administration, accounting, registration,<sup>54</sup> IT/database as well as procurement.<sup>55</sup> The CCBRT Maternity Hospital Director ensures the provision of

<sup>53</sup> The Hospital Management Team will be appointed by the CCBRT Board of Directors with advisory support from the Dar es Salaam Regional Designated Hospital Governing Committee (DRDHGC).

clinical support services including pharmacy, radiology, anaesthesia, blood bank, and laboratory with support of respective in-charges. He/she acts as an advisor to the Director of the CCBRT Regional Designated Hospital.

During the set-up of CCBRT Maternity Hospital, established working structures of the Disability Hospital will be replicated.<sup>56</sup> The structures have evolved over the past years and proven to ensure the transparency of operational procedures within the organisation, strengthen administrative and internal control procedures in accounting, reporting, procurement and storing, and allow a systematic approach to handling, disseminating and documentation of information.

The most important initial activity under this objective is to identify and employ well-qualified management staff in key positions. CCBRT will, if necessary, choose to upgrade hospital management skills in senior management staff as well as lower-level heads of department and in-charges.

#### *Steps to ensure accountability*

CCBRT will replicate segregation of duties in tasks at CCBRT Maternity Hospital whereby single employees or groups of employees do not maintain exclusive control over a complete transaction cycle. In addition, personnel responsible for recording and reporting a transaction have no control over the processing of the transaction. This system ensures that errors or irregularities cannot be concealed and ensures a maximum of transparency and accountability in CCBRT's operations.

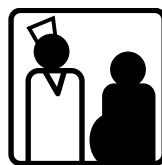
On an annual basis, CCBRT's accounts are audited by a certified external auditor and a uniform audit report produced. The audited accounts are made accessible to CCBRT partners upon request. CCBRT's accounting units produce monthly reports to allow the management to track incomes and expenditures in relation to budgets and activities and take remedial action if necessary. CCBRT provides annual financial reports with full transparency.

To ensure quality in administration of work, CCBRT already employs two full-time auditors. CCBRT's auditors

check the administrative and financial accountability of every single department and conduct half-yearly financial audits. An integral part of their work is to review cost efficiency and work processes of each of the departments and come up with suggestions for improvements. CCBRT Regional Designated Hospital will expand the internal auditing unit by one additional staff member to cover for the increased work load with the establishment of maternal and newborn services. Next to the internal auditing department CCBRT Maternity Hospital will operate a Quality Assurance Unit responsible for the assessment of the adherence to service standards and protocols.

In all areas of work, CCBRT adheres to Tanzania's laws and health and educational policies. CCBRT management is up-to-date with legal developments and fully adheres to existing laws governing NGOs in Tanzania. CCBRT employs two lawyers who are regularly consulted in legal matters concerning CCBRT.

CCBRT implements a policy of transparency, making strategic planning, narrative and financial reports accessible to its partners and other interested parties. CCBRT publishes one interim report and an annual report will be submitted to the Board of Directors and the Dar es Salaam Regional Designated Hospital Governing Committee. The narrative report provides a comprehensive overview of progress made in relation to the strategic plan, outlines successes, challenges faced during the implementation as well as lessons learned. All reports and publications are made accessible to the wider public on the CCBRT ([www.ccbt.or.tz](http://www.ccbt.or.tz)) and CCBRT Maternity Hospital websites ([www.baobabhospital.or.tz](http://www.baobabhospital.or.tz)).



#### ***4.5.2 To provide evidence-based maternal and neonatal health services of high quality***

There are three outputs under this strategic objective:

- a. Health services established;
- b. Quality assurance system implemented;
- c. Referral system in Dar es Salaam functioning.

54 To ensure maximum transparency and accountability, finances and administration will be dealt with in sub-units specifically assigned for CCBRT Maternity Hospital and Disability Hospital respectively, coordinated by the Head of Administration and Finances.

55 To ensure accountability, CCBRT will operate a separate Administration and Finance Unit assigned to CCBRT Disability Hospital.

56 Administrative and financial regulations can be accessed on demand at CCBRT Headquarters.

#### 4.5.2.1 Activities related to output 2a: Health services established

The core service of CCBRT Maternity Hospital is high quality obstetric care of normal and complicated deliveries focused on respect of the individual patients' needs and well-functioning EmOC procedures for complicated deliveries. In addition to the core service the hospital will also provide neonatal care, maternal and neonatal intensive care, gynaecological services including post-abortion care, family planning, sexually transmitted diseases and HIV related services such as PMTCT and continued ARV treatment. For a comprehensive list of services refer to Annex 11. In addition, Annex 12 shows the departments, wards and units required to provide the service portfolio.

CCBRT Maternity Hospital will follow WHO

recommendations for Integrated Management of Pregnancy and Childbirth and its key interventions to improve maternal and neonatal health and survival (Annex 13: WHO recommendations for care in pregnancy, childbirth and postpartum period for mother and newborn infant).

Services will be separated into primary and secondary level of care with the establishment of a primary health care unit on the hospital premises. This unit will provide the routine pregnancy-related health services such as antenatal care, postnatal care, child welfare clinics, and refer complicated cases to secondary health care units at CCBRT Maternity Hospital. Table 11 below illustrates the separation into routine primary health care services and specialized care.

Table 11: Place of care, providers and interventions

Health Care	Level of Care	Place	Provider	Interventions
<b>Before Pregnancy</b>				
Routine	Primary	CCBRT Primary Health Care Unit	Nurse midwife	Family planning Prevention and management of sexually transmitted infections and HIV
Specialized	Secondary	CCBRT Maternity Hospital	Team of doctors, midwives and nurses	Case management of Sexually Transmitted Diseases Post-abortion care
<b>Antenatal Care</b>				
Routine	Primary	CCBRT Primary Health Care Unit	Nurse midwife	Four-visit focused ANC package including on site tests for syphilis and PITC PMTCT
Specialized	Secondary	CCBRT Maternity Hospital	Team of doctors, midwives and nurses	Management of complications in pregnancy PMTCT

Health Care	Level of Care	Place	Provider	Interventions
<b>Childbirth</b>				
Specialized	Secondary	CCBRT Maternity Hospital	Team of doctors, midwives and nurses	<p>Skilled obstetric care at birth and essential care for neonates</p> <p>PMTCT</p> <p>Comprehensive Emergency Obstetric Care</p> <p>Neonatal resuscitation</p>
<b>Postpartum (mother) and postnatal (child)</b>				
Routine Mother	Primary	CCBRT Primary Health Care Unit	Nurse midwife	<p>Promotion of healthy behaviours for mother and baby</p> <p>Early detection and referral of complications</p> <p>Family planning</p> <p>PMTCT</p>
Routine Child	Primary	CCBRT Primary Health Care Unit		<p>Vaccinations</p> <p>Integrated Management of Childhood illness including the newborn</p> <p>Early referral of complications</p> <p>PMTCT</p>
Specialized Mother	Secondary	CCBRT Maternity Hospital	Team of doctors, midwives and nurses	Case management of postpartum complications
Specialized Child	Secondary	CCBRT Maternity Hospital	Team of doctors, midwives and nurses	<p>Case management of neonatal illness and birth injuries</p> <p>Extra care for preterm babies</p> <p>Early identification and treatment of congenital abnormalities and disabilities</p> <p>Care of children with HIV</p>

Since the hospital will not provide paediatric services in the initial period, there are some considerations in relation to ensuring the continuity of care for children born at the hospital. Children beyond the neonatal age of one month can be followed until they are one year for the routine primary health care services such as immunizations and well-baby clinics, and in the outpatient department in case of complications that need follow-up care. Children beyond the neonatal age in need of paediatric admittance will be referred to a suitable institution. CCBRT will seek to make referral agreements with these institutions to ensure best possible quality and continuity of care for these paediatric patients.

In the provision of services, strong linkages will be developed between inpatient and outpatient units and the community programme to ensure continuity of care (see table 8). Examples of this are delivering mothers receiving appointment cards for postnatal care and post-abortion patients receiving health education on family planning before discharge together with a follow-up appointment in the family planning unit.<sup>57</sup> Continuum of HIV/AIDS care will be arranged too.

A cervical cancer screening programme will be carried out in collaboration with the Ocean Road Cancer Institute, which is Tanzania's only specialised institution for treatment of gynaecological cancers. Where found necessary and appropriate, further such collaborations can be developed.

The process of establishing all services will be gradual, under the leadership of the hospital management and project implementation team. The project implementation team will develop a detailed plan for the inclusion of services over the period of two to three years until full operationality in 2014.

#### ***4.5.2.2 Activities related to output 2b: Quality assurance system implemented***

Provision of high quality health services is one of the key working principles of CCBRT. CCBRT will follow external Ministry of Health and Social Welfare quality assurance systems such as the Tanzania Quality Improvement Framework (TQIF) while at the same time establish an internal quality assurance system. A hospital quality assurance unit will implement the internal quality

assurance system. The quality assurance unit's main objective will be to assess and improve quality including monitoring client satisfaction, use of resources and staff motivation. The unit will draw on existing quality assurance questionnaires and tools such as the WHO's Performance Assessment of Health Personnel.

The initial activity under this output is to formulate terms of reference for the quality assurance unit. The unit will consist of four to six members of which at least two will be full-time and the unit will use a combination of intrinsic quality assurance improvement mechanisms such as clinical audits, self-assessments and incentives, and extrinsic mechanisms such as evaluations and external audits. The work requires knowledge of the symptomatology and treatment procedures for illnesses, and of national and international regulations and procedures applicable to quality assurance. The key working areas are patient safety, adherence to protocols, timely referral and adherence to treatment and pro-poor guidelines. Therefore, the working principles will be developed with the following focus areas:

- Focus on the client: services should be designed so as to meet the needs and expectations of clients and communities;
- Focus on system and processes: providers must understand the service delivery system and its key service processes in order to improve them;
- Focus on measurement: data are needed to analyse processes, identify problems, and measure performance;
- Focus on teamwork: quality is best achieved through a team approach to problem solving and quality improvement.

The working areas of the quality assurance unit will include supervision, ensuring that maternal and perinatal criterion-based audits are conducted, performing clinical reviews, monitoring adherence to standard treatment guidelines and job aids, monitoring the use and quality of partograms and the analysis and revision of data relative to quality assurance.

The quality assurance unit will provide feedback to relevant departments and units at the regular departmental and hospital management meetings. It will provide written feedback included in the annual hospital performance report.

---

<sup>57</sup> Family planning is one of the best preventive measures against abortions, unwanted pregnancies and maternal deaths.

#### **4.5.2.3 Activities related to output 2c: Referral system in Dar es Salaam functioning**

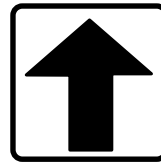
Being a referral institution CCBRT has a strong interest in a well-functioning referral system in the Dar es Salaam region as illustrated by its commitment to the development of an overall referral plan for the region. The activities will include lobbying for RHMT to conduct coordination meetings with the development partners. CCBRT will not fund the development of the referral plan as the Government of Tanzania and development partners have already expressed interest. The referral plan will include division of service portfolio and geographical uptake areas between Muhimbili National Hospital and CCBRT Maternity Hospital.

In addition, CCBRT will seek to regulate the incoming referrals to the regional hospital. First of all CCBRT satellite institutions, the three existing municipal hospitals and possible additional institutions in the periphery of Dar es Salaam, will be selected under the guidance of the RHMT. CCBRT is committed to support capacity building in comprehensive emergency obstetric care of these institutions, as described later, based on an initial CEmOC need assessment. CCBRT will seek to support the upgrading of the facilities, where found necessary, either through own support or through coordination and advocacy with the RHMT and development partners.

All the municipal hospitals have ambulances that are used for referral of patients. However, to ensure constant availability CCBRT will provide one back-up ambulance based at CCBRT Maternity Hospital. CCBRT is in favour of all staff in municipal health facilities in charge of screening and referring patients being trained in established referral criteria to ensure that the right patients are referred to the right hospital at the right time. Communication systems will be established using normal mobile phone technology and private cooperative initiatives with mobile phone companies will be explored.

Internal referral procedures will be developed (Annex 8: Internal Referral Chart) whereby CCBRT Maternity Hospital can refer children and women with disabilities or special needs for treatment and rehabilitation to either the Disability Hospital or the community programme. This creates a unique situation of early detection and

prevention of illness, disability, or death. The quality assurance unit will monitor the effectiveness of the referral system and apply quality improvement initiatives where necessary.



#### **4.5.3 To build capacity in hospital management and maternal and neonatal service delivery in the peripheral health system in Dar es Salaam Region**

There are three outputs under this strategic objective:

- a. 24-hour Comprehensive Emergency Obstetric Care established;
- b. Hospital management strengthened;
- c. Community maternal and neonatal health component implemented.

##### **4.5.3.1 Activities related to output 3a: 24-hour Comprehensive Emergency Obstetric Care established**

Being a referral institution, CCBRT will be dependent on the performance of the surrounding health system. The level of services, and quality provided in the periphery, will have an influence on the patient flow, patient load and categories of patient received at the regional hospital. Therefore, parallel to establishing new facilities and phasing in services at CCBRT Maternity Hospital, CCBRT will support the implementation of a capacity development programme in provision of 24-hour comprehensive emergency obstetric care and essential newborn care. The capacity development will be implemented under the leadership of the RHMT in Dar es Salaam region who are responsible for the coordination of efforts between development partners.

Early in 2009, CCBRT will support the development of essential health care packages for obstetric care and conduct a detailed situation and needs assessment at selected lower level health facilities that are to provide referrals to CCBRT Maternity Hospital. The situation analysis will identify quality and readiness to provide CEmOC and neonatal care in terms of human resource capacities (qualification and number) as well as available infrastructure, equipment and supplies.<sup>58</sup> This will form the starting point for the development of tailor-made capacity development plans, focussing on strengthening those areas needed to achieve provision of quality EmOC and neonatal care. Capacity development plans will

58 The situation and needs analysis will also identify logistic and managerial constraints which limit the ability of health facilities to provide services to required standards.

be developed under the auspice of the Regional Health Management Team and management teams of health facilities, with support of assigned CCBRT staff. CCBRT will develop MoUs with the leadership of respective health facilities on roles, responsibilities and commitments during any capacity development initiatives.

CCBRT's capacity development support will focus on hands-on teamwork training, e.g. the two-day "Advanced Life Support in Obstetrics" (ALSO) course. CCBRT will strive to do this on a regular basis in collaboration with internationally renowned training institutions. Upon setup of the CCBRT Maternity Hospital facilities, trainings will be hosted at CCBRT's training facilities.

CCBRT will employ a gynaecologist/obstetrician who, over an expanded period, will coordinate in-service training and support to teams who have undergone EmOC and neonatal care training.

Furthermore, CCBRT will seek, in collaboration with other development partners, to provide support to the improvement of infrastructure, important equipment and supplies of selected health facilities to ensure improved service delivery capabilities.

Once CCBRT Maternity Hospital is fully operational, CCBRT will make a certain number of fellowships as well as short-term in-service trainings available for gynaecologists/obstetricians, midwives, and other cadres every year to strengthen national capacity in maternal and newborn care.

#### ***4.5.3.2 Activities related to output 3b: Hospital management strengthened***

Once the service capacity for EmOC is in place, utilization can be further encouraged through efforts to address the other delays that commonly contribute to maternal mortality - referral, transport, cost barriers and recognition of complications.

A substantial proportion of barriers of access to health services of good quality are attributed to lack of efficient use of existing material and human resources due to challenges in management. Therefore, CCBRT is committed, if necessary, to further support the upgrading of management skills of holders of key positions in the peripheral health system.

#### ***4.5.3.3 Activities related to output 3c: Community maternal and neonatal health component implemented***

Following a comprehensive approach, CCBRT not only aims at providing maternal and neonatal services and developing capacity in the peripheral health system of Dar es Salaam region, but also at providing follow-up support and referral to those in need. It also aims to contribute towards behavioural change and improved health-seeking behaviour in adolescents, women and their families. CCBRT will achieve this by developing a community maternal and neonatal health component including HIV/AIDS aspects, utilizing the structures of the existing CCBRT community programme and other similar programmes.

CCBRT operates 12 community support units, evenly spread over the Dar es Salaam region, providing rehabilitative services and health education to mothers with children with disabilities on a once-weekly basis. CCBRT will expand the service portfolio of support units to also provide support to women and newborns, with a special focus on mothers and newborns in vulnerable physical or social situations. CCBRT Maternity Hospital staff will refer mothers in need of follow-up services to the nearest support centre. This way, CCBRT will be in the unique position of identifying and supervising problems in newborns and their mothers at an early stage, and providing information on patient rights, home care of newborns, immunization, nutrition and hygiene, danger signs and illness in newborns and appropriate care, breastfeeding, healthy life styles, prevention and treatment of HIV/AIDS, and other relevant health issues to ensure healthy development of fragile newborns.

CCBRT community workers will ensure that, if needed, mothers and their newborns are referred to treatment at the appropriate level of the health system. For this purpose, CCBRT will hire additional community workers with expertise in maternal and newborn care. CCBRT community workers will also provide home-based follow-up to women and newborns with critical health status, living in vulnerable physical or social situations. The central database will allow CCBRT Maternity Hospital and Community Programme to register referrals from the Maternity Hospital to the Community Programme and vice versa and ensure that clients in need of follow-up support receive it.

During the establishment of the new facility, CCBRT will also conduct an assessment and review of existing community-based reproductive health interventions, strategies, and Information, Education and Communication (IEC) materials of relevant governmental and non-governmental stakeholders. CCBRT will establish collaborations with existing related community programmes, health facilities, and institutions and develop further community activities and IEC materials where gaps exist. One example of a possible area of collaboration is the KMC programme that is being implemented by Save the Children. CCBRT will discuss the roles of both CCBRT Maternity Hospital and the community support centres where children can be followed up after discharge.



#### ***4.5.4 To conduct innovative research and development of best practice in maternal and neonatal health***

There are three outputs under this strategic objective:

- a. Links to academic research institutions established;
- b. Effective health management information system established;
- c. Lessons learned disseminated.

##### ***4.5.4.1 Activities related to output 4a: Links to academic research institutions established***

Partnership with outside research institutions will have the potential of greatly enhancing the conduct of operational research studies relevant to the health problems of the public of Dar es Salaam and of the patients of the Regional Designated Hospital. CCBRT is attractive to research institutions because it offers both a hospital and a community platform. CCBRT will actively seek to establish links with research institutions and positive indications of interest have already been received from the University of Copenhagen Department of International Health, Immunology and Microbiology. Other institutions of interest include MUHAS, the National Institute of Medical Research, and Ifakara Health Research Institute.

Some of the research can be carried out by CCBRT staff members themselves as job motivation and a career-promoting incentive. CCBRT will promote this type of research by granting prospective researchers leave with salary for a maximum of three months.

CCBRT will develop a library with good reference materials and subscription to a few key international journals of relevance such as Health Policy and Planning, Tropical Medicine and International Health, and International Journal of Obstetrics and Gynecology. Information Technology including Internet access will be made available and optimally used. Identification and training of one or two of the health administration staff members as part-time librarians will be important to the success of the library.

##### ***4.5.4.2 Activities related to output 4b: Effective health management information system established***

The backbone of informed management decisions as well as for research purposes is data of high quality. The quality assurance unit will be dependent on the data and will, in turn, perform quality assurance on the reliability and validity of the data. The government HMIS system will be used but adjusted where found necessary. Following the guidelines for health institutions, CCBRT will submit routine health information to the MOHSW.

##### ***4.5.4.3 Activities related to output 4c: Lessons learned disseminated***

The lessons learned will be disseminated through research papers produced under output 4.5.4.1 a. CCBRT will also participate in national as well as international meetings and conferences. Innovative internal dissemination mechanisms such as a quarterly CCBRT newsletter, electronic Continuous Medical Education and e-mail messages will be explored.

# 5 MONITORING AND EVALUATION

---

CCBRT will prioritize continuous monitoring and evaluation as an integrated part of the Quality Assurance system explained previously. Selected indicators will feed into the national Health Management Information System with the ultimate aim to contribute towards the monitoring of Tanzania's effort towards achieving the targets set in the Millennium Development Goals, MKUKUTA and the "One Plan" (Annex 14: MDGs, MKUKUTA and the "One Plan" targets and indicators).

CCBRT Maternity Hospital will use a core set of indicators in the following areas (see Annex 15):

- Overall performance indicators;
- Reproductive health service delivery indicators;
- Neonatal service delivery indicators;
- HIV/AIDS service indicators;
- Management indicators;

- Community programme indicators;
- Finance indicators.

The performance indicators will be expanded and supported by patient satisfaction data. Monitoring will not necessarily be limited to this list of indicators but the above core set is important to monitor hospital performance and the country's progress towards achieving the goals set in MDGs, MKUKUTA and the "One Plan."

CCBRT Maternity Hospital will produce an Annual Performance Report including key indicators in the areas mentioned above, an analysis of the UN process indicators and Emergency Obstetric Care Signal Functions. The report will also contain a chapter by the Quality Assurance Unit who will report on quality of care indicators, challenges and initiatives to tackle them.

## 6 IMPLEMENTATION PLAN FOR THE CONSTRUCTION OF THE HOSPITAL

---

### 6.1 ESTABLISHMENT OF IMPLEMENTATION TEAM

The implementation of CCBRT Maternity Hospital's construction will be guided by the Strategic Plan and managed by an implementation team consisting of:

- The CCBRT Chief Executive Officer,
- The CCBRT Project Manager,
- An obstetrician,
- The CCBRT Maternity Hospital Director,
- An HIV specialist,
- The Fundraisers, and
- A building advisor.

The implementation team will be formed in 2009. The team's first assignment is the development of the implementation plan, followed by its execution. The team will also be responsible for the setup of the new services at CCBRT Maternity Hospital. The gynecologist/obstetrician and the hospital director will lead the implementation of the first phase of the Strategic Plan, namely capacity development support to lower health service providers in maternal care, neonatal care, and other related issues, as well as managerial skills.

### 6.2 DEVELOPMENT OF IMPLEMENTATION PLAN

In 2009, the implementation team will establish a detailed implementation plan, outlining activities and timelines for the four components of the Strategic Plan: establishment of infrastructure, provision of services, capacity building in the peripheral health system, and research. In the initial phase, focus will be on fundraising and planning of the construction, equipping and furnishing of CCBRT Maternity Hospital, staffing and in-service training of core hospital department teams and organising the new maternity community programme, development of memorandums of understanding with government and non-government stakeholders, phasing-in of the new service portfolio, as well as capacity development activities for lower-level health facilities.

The implementation plan will be presented in the form of a narrative, annual activity logframes, and annual implementation budgets. Annual Gantt chart(s), developed in 2009, will illustrate planned activities and timelines at the sub-activity level and be submitted to the CCBRT Board of Directors for approval. The CCBRT Chief Executive Officer will on a regular basis report

on the status of implementation to the CCBRT Board of Directors, CCBRT General Assembly and the DSM Regional Designated Hospital Governing Committee. CCBRT will hold regular coordination meetings with the RHMT, the Chief Medical Officer of the MOHSW, as well as relevant development partners in the Dar es Salaam region to ensure maximum alignment and consolidated action.

CCBRT in addition will make regular status updates available to all its partners through bi-annual narrative and financial reports against annual logframes, as well as quarterly newsletters. All reports will be found on the CCBRT Maternity Hospital website, [www.baobabhospital.co.tz](http://www.baobabhospital.co.tz) and the CCBRT website, [www.ccbrt.or.tz](http://www.ccbrt.or.tz)

## 7 BUDGET AND FINANCING

---

### 7.1 BUDGET

The total budget for the implementation of the Five-Year Strategy Plan amounts to 16.7 million euro. This budget is composed of:

- 6.3 million euro for investment costs, including all involved construction, furnishing and equipment costs;
- 10.4 million euro for running costs, including human resources,<sup>59</sup> training, supplies & materials, maintenance, replacement of equipment, utilities, and other expenses.

In line with the MoU with the Government of Tanzania, CCBRT will receive an annual bulk grant to cover human resource expenses and an additional grant for supplies.<sup>60</sup> The bulk grants will be made available to CCBRT on a quarterly basis. To ensure that CCBRT Maternity Hospital is sustainable, CCBRT will generate its own income through private patient contributions, introduction of a bypass fee for self-referred patients, and provision of chargeable services (e.g. infertility treatment). The CCBRT Board of Directors has decided that 20% of CCBRT Maternity Hospital clients may be private patients.

The detailed budget has been developed with support from experienced hospital managers, health professionals as well as a health economist and is available to view on request.

### 7.2 FINANCING OF CCBRT MATERNITY HOSPITAL

Early in 2008, CCBRT reviewed its financing strategy to ensure sustainable funding of its programme activities. CCBRT believes that diversification of funding sources is an important step to realise sustainable funding. CCBRT therefore builds its Financing Strategy on the following four pillars:

#### *1) Government of Tanzania contributions*

In line with the Public-Private Partnership between the Dar es Salaam City Council and CCBRT, the Government of Tanzania will contribute a bulk grant for staff salaries and additional funding for equipment, drugs and supplies. These kinds of grants are usually made available to Government Regional Hospitals. In addition, the Government of Tanzania has generously donated the land on which the new CCBRT Maternity Hospital as well as other future departments will be established. The Government of Tanzania will therefore make a major contribution to the total budget.

#### *2) CCBRT national and international fundraising*

In January 2009, CCBRT established the Kupon Foundation, an international foundation based in New York which enables CCBRT to directly target American fundraising markets. It also signed an agreement with another international organisation to link up on fundraising efforts in Europe. CCBRT employs two fundraisers to run the two offices and establish a wide

---

<sup>59</sup> CCBRT calculates an annual salary increment of 15% for all staff to level the annual increase of living expenses due to inflation. CCBRT in addition calculates an additional grant every year to be disbursed to those staff members that excel in their performance.

<sup>60</sup> CCBRT is entitled to receive drugs and supplies from the Medical Store Department (MSD), under the Ministry of Health and Social Welfare. CCBRT will utilise this service. CCBRT, at the same time, will continue to operate its own procurement unit to ensure reliable drug supplies. Procurement is done in an open tender process on a bi-annual basis.

donor base. This step allows CCBRT to directly raise funds for its core budget and an increased flexibility in programme development.

To maximise efforts, CCBRT strives to develop joint fundraising strategies with existing long-term international partners. All revenues of Kupona Foundation will be invested in the establishment of CCBRT Maternity Hospital as well as CCBRT's existing programmes.

CCBRT increasingly targets the East African and Middle Eastern fundraising markets. For this purpose, CCBRT has employed one staff member responsible for resource mobilisation and marketing, predominantly raising funds for CCBRT Maternity Hospital. From this CCBRT aims to generate an annual income of one million euro and above.

Furthermore, in the first quarter of 2009, CCBRT established a new fundraising website [www.baobabhospital.co.tz](http://www.baobabhospital.co.tz) to tap into online-fundraising and provide continuous communication and updates about the development of CCBRT Maternity Hospital.

### *3) CCBRT patient revenue*

Income generation through its services is an important pillar for the sustainable running of CCBRT's activities. CCBRT will therefore operate a private maternal clinic for the middle class and wealthier population of Dar es Salaam region. The private clinic will provide the same quality of services as the ones given to referred patients, while offering extra amenities. The CCBRT Board of Directors has decided to maintain a 20% to 80% ratio of private patients to patients of poor background receiving services free of charge.

CCBRT in addition will introduce a bypass fee for self-referred patients. CCBRT calculated that 50% of patients will bypass the referral system and access maternal services directly at CCBRT Maternity Hospital. Over the past years, public and private health insurance funds have evolved. CCBRT will seek to receive accreditation by the main government insurance as well as private insurance companies in Dar es Salaam so as to receive the payments for services provided through the insurers.

### *4) Development partners*

Over the past decade, CCBRT has partnered up with a wide variety of international partners, including CBM, Light for the World, DFID, Irish Aid, IF Foundation, and CIM/GTZ. This has enabled CCBRT to develop its disability-related programmes to their full potential through technical and financial support. CCBRT will strive to expand existing partnerships and identify new ones, where possible, to realise the CCBRT Maternity Hospital Strategy 2010-2014 and contribute towards the achievement of the National Roadmap Strategic Plan To Accelerate Reduction of Maternal, Newborn and Child Deaths in Tanzania 2008–2015, referred to as the “One Plan” and MDGs 4 and 5.

## 7.3 CORE FUNDING

Efficiency in operation is one of the key principles in CCBRT's work. To minimise administrative expenses and maximise investment in CCBRT's programme operations while ensuring transparency and accountability at all times, CCBRT has decided to move towards core funding in the years to come.<sup>61</sup> CCBRT actively lobbies with all its partners to contribute to the core budget of CCBRT Maternity Hospital Strategy 2010-2014, moving away from project-based funding. CCBRT is to provide detailed annual activity logframes with respective targets and budgets to all its partners against which CCBRT will report on a biannual basis. At the end of the year, CCBRT provides audited accounts, conducted by a certified auditing company. Upon request from partners, CCBRT is ready to make interim financial reports available.

# 8 ASSUMPTIONS, RISKS AND PRECONDITIONS

## 8.1 ASSUMPTIONS

Being a Regional Designated Hospital, CCBRT will collaborate closely with the RHMT, the Dar es Salaam City Council and the MOHSW. A good working relationship has been initiated and it is assumed that this relationship will continue, as well as the general political support for CCBRT being a regional hospital. Based on CCBRT's efforts to diversify and increase its funding base, it is assumed that CCBRT will be successful and raise the necessary funds for the initial construction and that CCBRT can sustain the running costs of the hospital. Kupona Foundation and the European Fundraising Office will mainly target Maternal Health. This strategic move allows for all fundraising successes to go directly into the construction and running of the new hospital.

## 8.2 RISKS

One risk is that the hospital will not be able to sufficiently regulate patient flows and hence becomes congested with patients bypassing lower levels of care. By introducing a bypass fee, CCBRT will be in the position to have some influence on the patient flow.<sup>62</sup> CCBRT's parallel efforts in strengthening capacities of lower-level health facilities in providing CEmOC will allow those facilities to better cope with EmOC cases and thereby decrease the need for referrals to CCBRT Maternity Hospital.

Another major risk is related to the human resource shortage, which may seriously hinder service provision if qualified staff cannot be attracted. Generally performance-based financing schemes and incentives to health workers is unlikely to be a sufficient means to solve the need for more skilled health workers, but being a referral hospital with a good reputation, based in the capital of Dar es Salaam, is an advantage. There might, however, still be problems in the recruitment of certain cadres such as midwives and specialists such as anaesthetists and neonatologists. If this is the case, CCBRT will seek either to attract Tanzanian health workers currently living abroad or employ foreigners to temporarily bridge the gap. CCBRT, furthermore, employs a nursing trainer who is involved in the continuous improvement of capacities of nursing staff at CCBRT Disability Hospital. During the

setup phase of CCBRT Maternity Hospital, the nursing trainer will be involved in developing in-service training programmes for newly recruited nursing staff.

CCBRT will receive the same allocations for staff salaries and supplies from the GoT as other Regional Hospitals. This is stated in the Memorandum of Understanding and in the Service Agreement. There is, however, a risk that these funds are disbursed in fractions or not in time, and CCBRT has therefore found it necessary to develop a fundraising strategy that relies on four pillars: contributions from the GoT, CCBRT national and international fundraising, CCBRT patient revenue, and Development Partners. CCBRT has made considerable investment in expanding its national and international fundraising capacities in the organisation. This will allow the organisation to build necessary reserves to buffer potential delays in disbursement of funds from the GoT and ensure reliable service provision.

Another risk is that the expansion of CCBRT with maternal and neonatal services may exceed the manageability of operation and decrease the organisational accountability. To mitigate this risk, CCBRT will establish a separate hospital management team under the lead of the CCBRT Maternity Hospital Director. The management team will be newly recruited which will allow CCBRT Disability Hospital to maintain its full operational capacity. The strategic development, harmonization and quality assurance of hospital services will be coordinated by the Regional Designated Hospital Director. CCBRT operates a central accounting system, which captures financial data of all departments. CCBRT Maternity Hospital will operate its own cost centres, thereby ensuring maximum accountability to its partners.

## 8.3 PRECONDITIONS

There are two preconditions for the success of the Regional Designated Hospital.

One precondition is that the Government of Tanzania provides the same support to the CCBRT Regional Designated Hospital as it does to other regional hospitals. This includes not only funding for the salaries for human

61 In 2008, CCBRT provided 104 narrative reports to 42 partners. This requires CCBRT to make considerable investments in financial and administrative personnel which could otherwise be used for project implementation to reach many more persons in need of quality services.

62 The exact pricing structure will be established based on research of service fee structures in DSM Region. CCBRT will ensure that services are affordable to those in need.

## REFERENCES

resources but also consumables and reimbursements for exempted patients. This is in line with the Memorandum of Understanding and the newly developed Service Agreement.

One of the risks identified is congestion, and hence compromising quality. It is therefore essential that the Regional Health Management Team continues to provide leadership in the development of a comprehensive referral plan for the Dar es Salaam region and provides guidance and coordination for the capacity building of lower-level health facilities in provision of 24-hour comprehensive emergency care of high quality.

Baily P, Fortney J, Freedman L. Improving Emergency Obstetric Care through Criterion-based audit, amdd programme, 2002

Campbell O M R, Graham J W. Strategies for reducing maternal mortality: getting on with what works. The Lancet Maternal Survival Series, Lancet 2006; 368: 1284-99

CCBRT management guide, version 2006-2008

CCBRT annual report 2007

CCBRT strategic plan 2008-2012

CCBRT vision and mission

Health Sector Performance Profile Report, mainland Tanzania, 2006-2007

Joint external evaluations, The health sector in Tanzania, 1999-2008

Khalid S K, Daniel W, Lale S et al. WHO analysis of causes of maternal death: a systematic review. The Lancet 2006; 367: 1066-74

Lawn J E, Cousens S, Zupan J. Neonatal Survival 1: 4 million neonatal deaths: When? Where? Why? Lancet 2005; 365: 891-900

Liljestrand J, Gryboski K. Maternal Mortality as a Human Rights Issue. In Murphy, E and Ringheim, K, eds. *Repro*

Mbaruku G, Bergström S. Reducing maternal mortality in Kigoma, Tanzania. *Health Policy and Planning* 1995; 10(1):71-78

Mbaruku G, Van Roosmalen J, Kimondo C et al. Perinatal audit using the "three phases delay" in Western Tanzania

National Bureau of Statistics. Census 2002. Regional and District Projections. Dar es Salaam

Tanzania Service Provision Assessment Survey 2006

The Dar es Salaam City/Region Minimum Package of Health and related Management Activities

The Lancet Child Survival Series, Vol 362, 2003

The Lancet Neonatal Series, Vol 365, 2005

The Lancet Maternal Series, Vol 368, 2006

- The Lancet Series on Sexual and Reproductive Health, Vol 368, 2008
- The Lancet Series on Primary Health Care, Vol 372, 2008
- The United Republic of Tanzania, Ministry of Health and Social Welfare. Health Sector Strategic Plan III, "Partnerships for Delivering the MDGs" 2009-2015.
- The United Republic of Tanzania, Ministry of Health and Social Welfare. Second Health Sector Strategic Plan II, "Reforms towards Delivering Quality Health Services and Client Satisfaction" 2003-2008
- The United Republic of Tanzania, Ministry of Health and Social Welfare. "Human Resource for Health Strategic Plan" 2008-2013
- The United Republic of Tanzania, Ministry of Health and Social Welfare. "Staffing Levels for Health Facilities and Institutions"
- The United Republic of Tanzania, Ministry of Health and Social Welfare. "Guidelines for Reforming Hospitals at Regional and District Levels"
- The United Republic of Tanzania, Ministry of Health and Social Welfare. "National Tracer Standards and Indicators for Quality Improvement in Health Care" (draft)
- The United Republic of Tanzania, Ministry of Health and Social Welfare. "National Roadmap Strategic Plan to Accelerate Reduction of Maternal, Newborn and Child Deaths in Tanzania" 2008-2015
- The United Republic of Tanzania, Ministry of Health and Social Welfare. "Primary Health Services Development Programme (PHSDP/MMAM)" 2007-2017
- The United Republic of Tanzania, Ministry of Health and Social Welfare. "Maternal and Perinatal Death Audit Guidelines" (draft)
- The United Republic of Tanzania, Ministry of Health and Social Welfare. "Final Report Joint Annual Health Sector Review" Health Sector Reform Secretariat, 2008
- The United Republic of Tanzania, Ministry of Health and Social Welfare. "National Guidelines for the Management of HIV and AIDS, National AIDS Control Programme (NACP)" Third Edition, 2008
- The United Republic of Tanzania, Ministry of Health and Social Welfare. "SOPs for HIV Care and Treatment, NACP" (draft) 2008
- The United Republic of Tanzania, Ministry of Health and Social Welfare. "Standard Guidelines for Health Laboratory Facility" 1998
- The United Republic of Tanzania, Ministry of Health and Social Welfare. "Implementation of HIV/AIDS Care and Treatment Services in Tanzania" Report Number 1. NACP, May 2008
- The United Republic of Tanzania, Ministry of Health and Social Welfare. "Health Sector HIV/AIDS Strategic Plan II" (final draft) 2008
- The United Republic of Tanzania, Prime Minister's Office. TACAIDS. "National Multi-Sectoral Strategic Framework for HIV and AIDS, 2008-2012"
- The United Republic of Tanzania, Ministry of Health and Social Welfare. "PMTCT Final Guidelines" NACP, 2008
- The United Republic of Tanzania, Ministry of Health and Social Welfare. "HBC Guidelines" NACP, 2005
- Ronsmans C, Graham W J. "Maternal Mortality: Who, When, Where, and Why" The Lancet Maternal Survival Series, Lancet 2006; 368:1189-200
- Urassa D P et al. "Dar es Salaam Region Perinatal Care Needs Assessment" March 2006
- WHO "Integrated Management of Childhood Illnesses Pregnancy, Childbirth, Postpartum and Newborn Care – A guide for essential practice" 2006
- WHO "Impact Toolkit: A Guide and Tools for Maternal Mortality Assessment" Aberdeen, UK: University of Aberdeen, 2007
- WHO "Beyond the Numbers, Reviewing Maternal Deaths and Complications to Make Pregnancy Safer" 2004
- WHO "Guidance on Global Scale-Up of the Prevention of Mother-To-Child Transmission of HIV. Towards universal access for women, infants and young children and eliminating HIV and AIDS among children" 2007
- Vice-President's Office "National Strategy for Growth and Reduction of Poverty (MKUKUTA)" 2005

# ANNEXES

## ANNEX 1: GLOSSARY

### A AIDS

This stands for Acquired Immune Deficiency Syndrome and describes the associated collection of symptoms and infections. Infection with HIV has been established as the underlying cause of AIDS. The level of HIV in the body and the appearance of certain infections are used as indicators that HIV infection has progressed to AIDS.

### Anemia

A condition in which there is a low blood level of red blood cells or haemoglobin, or a low total volume

### Antenatal care

Services during pregnancy including monitoring of progress of the pregnancy, assessment of maternal-fetal well-being, prevention, care and treatment for HIV/AIDS (PMTCT), counselling on nutrition, breast feeding, healthy lifestyles, development of birth preparedness plan, screening for protein and anemia, identification and treatment of problems complicating pregnancy (hypertension, bleeding, malpresentation, multiple pregnancies), treatment of sexually transmitted infections and malaria, assessment of female genital mutilation

### Antiretroviral treatment (ART)

Long-term use of antiretroviral drugs to treat infection by retroviruses, primarily HIV

### B Basic Emergency Obstetric Care (BEmOC)

Functions that can be provided by an experienced nurse/midwife or physician saving the lives of women during delivery and stabilizing women who need to go further for more sophisticated treatment

### C Cerebral Palsy

Cerebral palsy is caused by damage to the brain parts that control movements and body position. In some cases, even mental capability can be affected. Cerebral palsy can result in muscle stiffness or a loss of control of movement and coordination of movement. In some cases hearing and sight may be affected.

### Cesarean section rate

The number of caesarean sections performed per total number of births

### CD4 count

A test that measures the number of CD4 cells in the blood, thus reflecting the state of the immune system. A normal count in a healthy adult is 600–1200 cells/mm<sup>3</sup>. When the CD4 count of an adult falls below 200 cells/mm<sup>3</sup>, there is a high risk of opportunistic infection.

### Child mortality rate

The probability of dying between birth and the age of five, according to current mortality rates and expressed as a rate per 1,000 live births is known as the child mortality rate. The term is used interchangeably with under-five mortality rate.

### Comprehensive Emergency Obstetric Care (CEmOC)

Includes basic emergency obstetric care functions as well as blood transfusions, cesarean sections and comprehensive post-abortion care

### E Eclampsia

Convulsions (seizures) occurring with pregnancy-associated high blood pressure and having no other cause

### F Fertility rate (total)

The average number of children a woman will have during her lifetime is known as the fertility rate.

### H Highly Active Antiretroviral Therapy (HAART)

The use of at least three antiretroviral drugs in combination to suppress viral replication

### Hemorrhages

Bleeding, technically known as hemorrhaging or haemorrhaging is the loss of blood from the circulatory system. Bleeding can occur internally, where blood leaks from blood vessels inside the body or externally, either through a natural opening such as the vagina, mouth, nose, or anus, or through a break in the skin.

### Hydrocephalus

Hydrocephalus means, “water on the brain”. Hydrocephalus is caused when the regular flow of cerebrospinal fluid (CSF), the liquid that surrounds the brain and spinal cord is blocked or too much fluid is produced. The build-up of fluid puts pressure on the brain, pushing the brain up against the skull, enlarging the skull in infants, and damaging or destroying brain tissues.

## **I Immunization**

A vaccine, usually injected with a needle, builds up people's defenses against diseases, such as polio, measles and tuberculosis. Source: Foster Parents Plan

## **Impairment**

A characteristic condition of an individual's body or mind which, unsupported, has limited, does limit or will limit the individual's personal and social functions in comparison with someone who does not have that condition. Impairment relates to the physical, intellectual, mental and sensory condition.

## **Infant mortality (rate)**

The probability of dying before the first birthday expressed per 1,000 live births

## **M Malaria**

An infectious disease caused by protozoan parasites from the Plasmodium family that can be transmitted by the sting of the Anopheles mosquito or by a contaminated needle or transfusion

## **Maternal case fatality rate**

The number of maternal deaths among women with obstetric complications in a health facility

## **Maternal death**

A maternal death is defined as the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes.

## **Maternal mortality ratio**

The number of maternal deaths related to childbearing divided by the number of live births in that year

## **MDGs (Millennium Development Goals)**

The Millennium Development Goals (MDGs), endorsed by governments at the United Nations in September 2000, aim to improve human well-being by reducing poverty, hunger, child and maternal mortality, ensuring education for all, controlling and managing diseases, tackling gender disparity, ensuring sustainable development and pursuing global partnerships.

## **Mother-to-child transmission (MTCT) of HIV**

Transmission of HIV from a woman infected with HIV to her child during pregnancy, childbirth, and

breastfeeding. Also referred to as vertical transmission or perinatal transmission.

## **N Neonatal death**

Death of a live born infant within the first 28 days after birth

## **Neonatal mortality rate**

The probability of dying within the first month of life expressed per 1,000 live births

## **Neonatal services**

Neonatal services include promotion of exclusive breast feeding, monitoring and assessment of the well-being and detection of complications, rooming-in, eye care, kangaroo mother care, cord care and hygiene, counselling on homecare breastfeeding, hygiene and advice on danger signs and care, recognition of danger signs and care-seeking behaviour, detection and treatment of infection, special care and treatment for pre-term babies and babies with malfunctions, PMTCT, immunization, vitamin A supplementation, growth monitoring and salt iodation.

## **O Obstetric complications**

Medical problems associated with obstetric labor, such as breech presentation, premature obstetric labor, hemorrhage, or others. These complications can affect the well-being of the mother, the foetus, or both.

## **Opportunistic Infections**

Infections caused by a microorganism that does not normally cause illness in a person with a healthy immune system, but that may cause serious diseases when the immune system is weakened.

## **P Perinatal care**

The care and management of the foetus and newborn infant in the perinatal period before, during, and after delivery

## **Perinatal mortality**

Perinatal mortality, defined as number of stillbirths and deaths in the first week of life per 1,000 live births

## **Postnatal care**

This includes all care of a mother and infant in the 6 weeks following birth, including prevention, early detection, and treatment of complications and disease, guidance and support of infant feeding and maternal nutrition, family planning, childhood immunizations

and referrals to needed services that provide continuity of care.

### **Prenatal care**

See Antenatal Care.

### **Prevalence**

The percentage of a population that is affected with a particular disease at a given time

### **R Reproductive health**

Reproductive health is defined by WHO as a state of physical, mental, and social well-being in all matters relating to the reproductive system at all stages of life. Reproductive health implies that people are able to have a satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide if, when, and how often to do so. Implicit in this are the right of men and women to be informed and to have access to safe, effective, affordable, and acceptable methods of family planning of their choice, and the right to appropriate health-care services that enable women to safely go through pregnancy and childbirth.

### **S Sepsis**

Bacterial infection in the blood and/or tissues. Symptoms include fever and low blood pressure. Sepsis can be life-threatening if not treated promptly.

### **Sexually Transmitted Diseases/Infections (STD/STI)**

A disease transmitted through sexual contact between two people. STDs may be transmitted through the exchange of semen, blood, and other body fluids or by direct body contact. The term sexually transmitted

disease applies to more than twenty different infections, including herpes, HIV, and syphilis. All STDs are preventable.

### **Spina Bifida**

Spina bifida (meningocele/myelomeningocele) is a birth defect which can develop during early pregnancy. It is characterized by an opening of the spine over the central tube of nerves (spinal cord). The soft, unprotected area at the back of the child only covered by a thin membrane may bulge and leak cerebrospinal fluid from the spinal cord and the brain. Muscle weakness, loss of feeling or paralysis of the feet, dislocation of the hip, development of club foot, muscle spasms and poor urine and bowel control, hydrocephalus and brain damage are problems that occur with spina bifida.

### **Stillbirth**

The death of a foetus after 28 completed weeks of gestation before the complete expulsion or extraction from its mother.

### **T Tuberculosis (TB)**

Contagious infection of the respiratory system, caused by the Mycobacterium tuberculosis bacterium. TB is spread by coughing and sneezing. TB is the most frequent opportunistic infection related to HIV, occurring early in the progression from HIV infection to full-blown AIDS.

### **U Under-five mortality rate**

The probability of dying between birth and five years of age, expressed per 1,000 live births

---

## **ANNEX 2: LIST OF PEOPLE MET**

### **Dar es Salaam City Council**

Mr. B. Kingobi City Director, Dar es Salaam City Council  
Dr. Kahama Regional Medical Officer  
Dr. Kawawa Deputy Regional Medical Officer  
Dr. G. Chalamilla In charge Infectious Diseases Hospital, DSM

### **Ministry of Health and Social Welfare**

Dr. Mtasiwa Chief Medical Officer  
Dr. Mung'ong'o Assistant Director, Charitable and Private Hospitals

Ms. Mwakalukwa Assistant Director, Human Resource Planning, Department of Human Resource Development  
Dr. Sanga Director, Reproductive and Child Health  
Ms. E. Lekashingo Head, Care and Treatment Unit, NACP  
Dr. Lija QA Officer, NACP  
Mr. J. Ndayongeje M&E Unit, NACP  
Ms. Msumi Counselling and Social Support Unit, NACP

<b>Stakeholders</b>			
Dr. B. Sørensen	Senior Health Advisor, HSPS Tanzania mainland, Danida	Maryjane Lacoste Dr. B. Schmidt-Ehry	Country Director, Jhpiego Health Sector Support Programme Coordinator, GDC
Dr. M. Petersen	Junior Programme Officer, HSPS Tanzania mainland, Danida	Ms A. Mlay	Reproductive Health Specialist, GDC
Dr. B. Peters	Senior Health Advisor, HSPS Zanzibar, Danida	Ms. R. Badiani	Pathfinder
Dr. A. Hussein	Programme Officer, Unicef	Ms. Mpembeni	MUHAS
Prof. Swai	Director of Clinical Services, Muhimbili National Hospital	Ms. N. Hulshoff	Architect
Dr. Lipyoga	Assistant Director of Clinical Services, Muhimbili National Hospital	Mr. D. Gummrich	Architect
Dr. H. M. Mohammed	Gynaecologist, Muhimbili National Hospital	<b>CCBRT</b>	
Dr. J. Obel	Professional Officer, Child & Adolescent Health, WHO	Erwin Telemans	Chief Executive Officer
Dr. D. P. Urassa	Associate Dean, School of Public Health and Social Sciences, MUHAS	Haika Mawalla	Assistant to the Chief Executive Officer
Dr. A. Giphardt	Country Director, EGPAF	Falk Winter	Hospital Director
Ms. Gehron	Infrastructure Project Advisor, Global AIDS Program, CDC	Dr. Stan Kinsch	Head of Rehabilitation Department
Mr. R. Bradshaw	Infrastructure Project Advisor, CTS Global, assigned to CDC	Tom Bourez	Director, Community Programmes
Dr. E. Shao	Senior Regional Technical Officer C&T, Morogoro, FHI	Arbogast Kajuna	Deputy Director, Community Programmes
Dr. C. Mango	Senior Regional Technical Officer C&T, Iringa, FHI	Fabiola Mponguliana	Health and HIV/AIDS Coordinator, Programme Development
Dorcas Robinson	Country Director, CARE Tanzania	Suzan Boon	Programme Development and Advocacy
		Grace Rwegoshora	Head of Finance and Accounting, CCBRT Disability Hospital
		Abdul Yahya	CCBRT Finance Manager
		Elly Festo	

### ANNEX 3: HUMAN RESOURCES NATIONAL REQUIREMENTS

	Total required	Current staffing level	Shortage	Shortage % of requirement
Specialists	171	96	75	43.9
Doctors	2,057	1,483	574	27.9
Trained nurses	14,743	9,093	5,650	38.3
Pharmacists/chemists	328	87	241	73.5
Technicians	1,506	741	765	50.8
Other medical staff	7,780	6,478	1,302	16.7
Support staff	16,737	13,778	2,959	17.7
Administrators/managers	547	196	351	64.2
<b>Total</b>	<b>43,869</b>	<b>31,952</b>	<b>11,917</b>	<b>27.2</b>

Source: "Assessment of the Human and Financial Resources for the Revised HIV and AIDS National Multi-sectoral Strategic Framework" 2007

## ANNEX 4: MINISTRY OF HEALTH AND SOCIAL WELFARE BACKGROUND DOCUMENTS

### **1. Vision 2025**

The Arusha Declaration in 1967 was the first vision document of the country after independence providing direction and a philosophy for long-term development.

The document identifies health as one of the priority sectors contributing to a higher quality livelihood for all Tanzanians. This is expected to be attained through strategies, which will ensure realization of health service goals such as access to quality primary health care for all, access to quality reproductive health services for all individuals of appropriate ages and reduction in infant and maternal mortality rates by three quarters of the 1998 levels.

### **2. Health Policy**

In 2007, the MOHSW revised the 1990 National Health Policy. The revised policy outlines achievements and challenges facing the health sector. The resource constraints (especially human resources) are identified as the major problem for not being able to cope adequately with health problems. The policy is well formulated and shows a strong emphasis on reproductive and child health.

The vision of the Government is to have a healthy society, with improved social well-being that will contribute effectively to personal and national development. The mission is to provide basic health services in accordance to geographical conditions, which are of acceptable standards, affordable and sustainable. The health services will focus on those most at risk and will satisfy the needs of the citizens in order to increase the lifespan of all Tanzanians.

The objectives of the Policy are to:

- Reduce the burden of disease, maternal and infant mortality and increase life expectancy through the provision of adequate and equitable maternal and child health services, promotion of environmental health and sanitation, promotion of adequate nutrition, control of communicable diseases and treatment of common conditions;
- Ensure the availability of drugs, reagents and medical supplies and infrastructures;

- Ensure that the health services are available and accessible to all the people in the country (urban and rural areas);
- Train and make available competent and adequate numbers of health staff to manage health services with gender perspective at all levels. Capacity building of human resources at all levels in management and health service provision will be addressed;
- Sensitize the community on common preventable health problems, and improve the capabilities at all levels of society to assess and analyse problems and design appropriate action through genuine community involvement;
- Promote awareness among Government employees and the community at large that, health problems can only be adequately solved through multi-sectoral cooperation involving such sectors as Education, Agriculture, Water, Private Sector including Non Governmental Organisations, Civil Society and Central Ministries, as well as Regional Administration and Local Government, and Community Development, Gender and Children;
- Create awareness through family health promotion that the responsibility for one's health rests in the individuals as an integral part of the family, community and nation;
- Promote and sustain public-private partnership in the delivery of health services;
- Promote traditional medicine and alternative healing systems and regulate the practice.

Together with the Poverty Reduction Strategy, the objectives of the National Health Policy will be achieved through the following strategies:

- Strengthening District Health Services so that essential clinical and public health packages are provided and the burden of disease, crude death rates, maternal and infant mortality are reduced, and life expectancy increased;
- Strengthening the Referral System so that it is efficient and cost-effective from the household to the National level;
- Adopt diversified complementary health care financing options, which are sustainable, involving Public-Private Partnership and other resources, and ensure availability of required logistics and support services which are affordable and accessible to every citizen;

- Enhance capacity at different levels by implementing comprehensive human resource development plans, which will facilitate deployment and retention of well-trained and motivated staff at the appropriate health service levels;
- Create public awareness at all levels through advocacy and IEC on preventable public health problems and the need for active community involvement in taking care of their own health;
- Improve coalition and multi-sectoral collaboration;
- Ensure representation of stakeholders and communities in health service delivery;
- Increase public private partnership in health provision;
- Implement effective donor and other stakeholders' co-ordination mechanisms.

To increase coverage and thus accessibility of basic health services for the largest part of the population, including the 70% living in rural areas, the Ministry of Health and Social Welfare has come up with a selection of evidence-based interventions as defined in the Essential Health Care Package. The Health Policy states:

- The Essential Health Care Package has been designed to improve the accessibility of an integrated collection of cost-effective interventions that address the main diseases, injuries and risk factors and include: Reproductive and Child Health, Control of Communicable and Non Communicable Diseases, Treatment of Common Conditions of local prevalence within the District, Community Health Promotion and Disease Prevention, through environment sanitation and management and occupational health services. The essential health care package extends to all levels of health care provision as detailed below;
- Reproductive and Child Health (RCH) interventions target on improving maternal conditions, family planning and addressing the needs of the child and other groups with focus on priority areas. Under the current arrangement, Reproductive and Child Health services form part of the basic essential health package.

Though the main challenge for RCH lies in trying to reach out to the rural areas, health care in urban areas faces considerable problems too, notably in providing services for the urban poor. In addition to achieving a higher coverage, the quality of first and second level

RCH services needs to be improved. This demands better hospital services in the city.

On hospitals the Health Policy states the following:

- Hospital services in the district are offered by the District Hospital and other level-one hospitals. Level-one hospital services offer the following services:
  - Provide Out-patient and In-patient care;
  - Act as the second referral level for the primary health care facilities in the district or catchment area;
  - Perform general surgical and obstetric operations.
- Regional Hospital Services: these are hospital establishments providing level two (Secondary) services to referrals from level one hospitals.
- The Regional Hospital, under the management of the Regional Secretariat through the Regional Hospital Board and Hospital Management Team, shall have the following functions:
  - Provide all services offered at district level but at a higher level of expertise;
  - Offer second level referral services from level one hospitals;
  - Conduct teaching and training of middle and operational level health cadres;
  - Conduct health research programmes including operational research of health system research in the Region;
  - Provide technical skills to lower health facilities in the Region and offer specialized treatment in Medicine, Surgery, Obstetrics and Gynaecology, and Paediatrics, and shall include Eye, Dental, Mental illnesses, Orthopaedics and Trauma.
- The Regional Hospital shall have a communication and transport system appropriate for functions and services rendered.
- The Ministry of Health shall maintain the criteria for the establishment and standardization of all parameters of these health service facilities including the staffing level, equipment, drugs, reagents, medical supplies and approved building plans.
- Collection, collation, utilization and feedback to other levels.

### ***3. Health Sector Reform and Sector-Wide Approach***

Health Sector Reforms (HSR) started in 1994 and aim at improvement of access, quality and efficiency in health service delivery. Primary health care was adopted

as the most cost-effective strategy to improve health of the people. The major focus of the HSR is therefore on strengthening the District Health Services, as well as strengthening and reorientation of secondary and tertiary service delivery in hospitals in support of primary health care. The programme also aims at strengthening of support services at the central level, in the MOHSW, in agencies and training institutions.

In 2001, District Health Services became part of the Local Government Authority and the Comprehensive Council Health Plan was introduced as management instrument, offering stakeholders full insight into the Councils' health activities.

Important in the HSR was building up the Sector-Wide Approach (SWAp) as mechanism for sustainable relations with other service providers in health and with Development Partners. An important achievement under the HSR was the introduction of the Health Basket Fund in 1999. From 2002 onwards the Councils started to receive funds from the HBF.

SWAp funds are aligned with MoHSW policy, funding sources include development partners, the Global Partnerships, health projects and others.

#### **4. MMAM**

In 2007 the MOHSW developed the Primary Health Care Service Development Programme (PHCSDP). This programme is better known by the Kiswahili name of Mpango wa Maendeleo ya Afya ya Msingi 2007-2017 (MMAM). The objective of the MMAM programme is to accelerate the provision of primary health care services for all by 2012, while the remaining five years of the programme will focus on consolidation of achievements.

The main areas will be strengthening the health systems, rehabilitation, human resource development, the referral system, increase health sector financing and improve the provision of medicines, equipment and supplies.

The first element is increasing the health workforce by increasing the throughput in the existing training institutions by 100%. Another is the rehabilitation of existing health facilities and construction of new ones, so as to have a dispensary in each village and a health centre in

each ward. The Referral System, especially communication systems and transport, will be strengthened.

#### **5. NMSF**

The government of Tanzania has committed itself to fight the HIV/AIDS epidemic through a multi-sectoral approach. In 2001 the Tanzania Commission for AIDS (TACAIDS) was formed and recently the second National Multi-sectoral Strategic Framework (NMSF) on HIV and AIDS 2008–2012 was defined.

The rationale for the NMSF approach is well stated: HIV is overwhelmingly transmitted through sexual contacts. Education and understanding of sexuality and sexual relations must be increased in families, schools and the general public without shyness and with respect for the needs of different age-groups and cultural traditions. The HIV epidemic is largely driven by unprotected sex, especially among men on the one hand, and by female subordination and lack of economic independence, on the other. Hence men can use their economic, social and cultural advantages to impose their desires on their spouses, girl-friends and contacts; and women are driven by economic need to engage in transactional sex. The “democratisation of sexual relations” is as important as the fight against other aspects of gender imbalances and abuse.

#### **6. Health Sector HIV and AIDS Strategy Paper II (HSHSP II)**

The Health Sector has defined the following goals for its response to HIV and AIDS:

- To scale up the health sector response to HIV and AIDS and strengthen the health system capacity to support HIV and AIDS interventions;
- To promote access and utilization of affordable and essential interventions and commodities for HIV and AIDS; and
- To improve the quality of HIV and AIDS interventions to the general public, people living with HIV, health care providers and other vulnerable populations.

The management intent of the HSHSP 2008-2012 is not to replace the need for Partners, Regions and Districts to have their own plans, but rather to:

- Support coordinated, prioritised and knowledge-based scale up of the response;

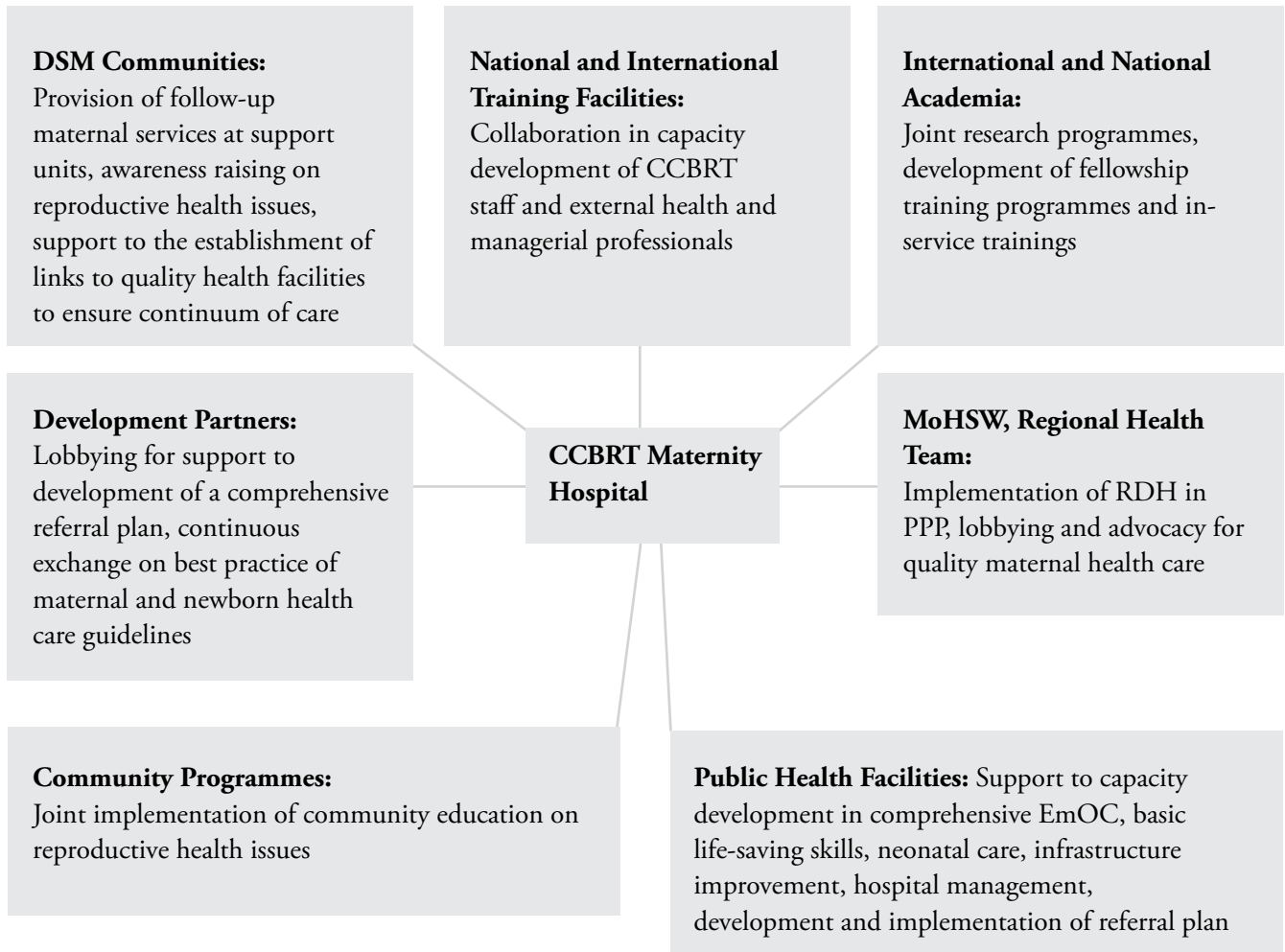
- Facilitate broad ownership of the response by all partners and practical partnerships for the implementation of the response; and
- Represent joint strategic direction of all Partners, Sectors, Regions and Districts.

ANNEX 5: SUMMARY STATISTICS FOR MATERNAL AND PERINATAL CARE SERVICES IN SELECTED HOSPITALS IN DAR ES SALAAM

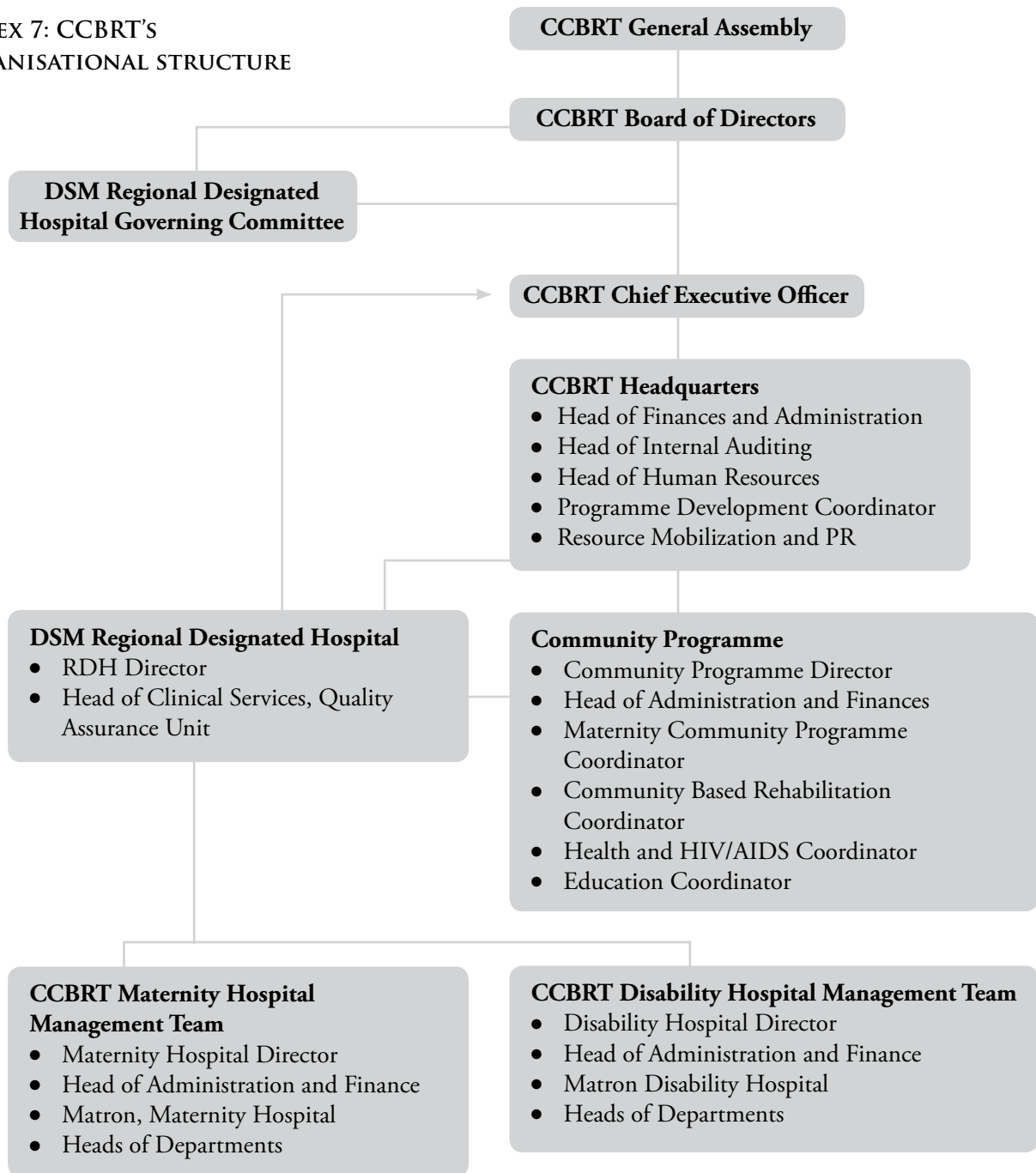
	Temeke		Amana (Ilala)		Mwa'mala (Kinondoni)		MNH	
	2004	2007	2004	2007	2004	2007	2004	2007
Total maternity admissions	18,729	19,108	14,845	30,601	13,196	16,877	24,793	-
Total number of maternity beds	47	51	76	76	36	47	246	272
Delivery beds	3	4	4	-	4	17	12	12
Total deliveries	15,347	18,490	12,432	20,547	12,465	13,564	11,543	9,244
Spontaneous vaginal delivery	-	17,677	-	19,866	-	13,564	-	5,358
Number of Caesarean sections performed	578	725	376	681	383	1,296	3,640	3,883
Instrumental delivery (vacuum)	158	110	-	0	11	16	106	3
Live births	-	17,546	-	20,104	-	10,537	-	7,486
Complications in delivery								
Haemorrhage	158	153	104	16	84	15	267	-
Prolong./obstructed labour	4	5	306	374	50	405	1,441	-
Sepsis	43	16	10	2	-	948	-	-
Pre-eclampsia/eclampsia	498	297	314	87	45	200	823	-
Ruptured uterus	14	24	8	4	-	-	-	-
Maternal referrals out	623	395	190	1,814	510	98	-	-
Maternal deaths	33	68	20	13	14	46	69	106
Neonatal health								
Intra-partum asphyxia and birth trauma	200	89	-	16	15	0	289	-
Complications of premature births	158	232	189	10	28	-	187	-
Number of stillbirths	324	860	363	389	311	575	900	606
Neonatal deaths (0-7) days	54	84	-	54	28	31	187	-
Human resources and quality indicators								
Nurses on first line call	11	5	18	10	20	18	21	-
Total nurses in the labour ward roaster*	11	34	21	40	25	18	40	-
Delivery rates (per day)	42	49.1	34	50	34	39	32	25
Caesarean section rate	3.7	2.01	3.02	3.3	3.07	9.5	31.6	42
Complication rate	5	3	6	2	1	12	22	-
% of deliveries referred to higher levels of care	4	2	1.5	9	4	1	-	-
Maternal mortality ratio	-	388	-	65	-	437	598	1,416
Stillbirth rate	21	21.5	29	31	25	12	78	-
Case fatality rate	5	14	3	3	8	3	3	-

\*Only nurses working in the labour ward/room are included

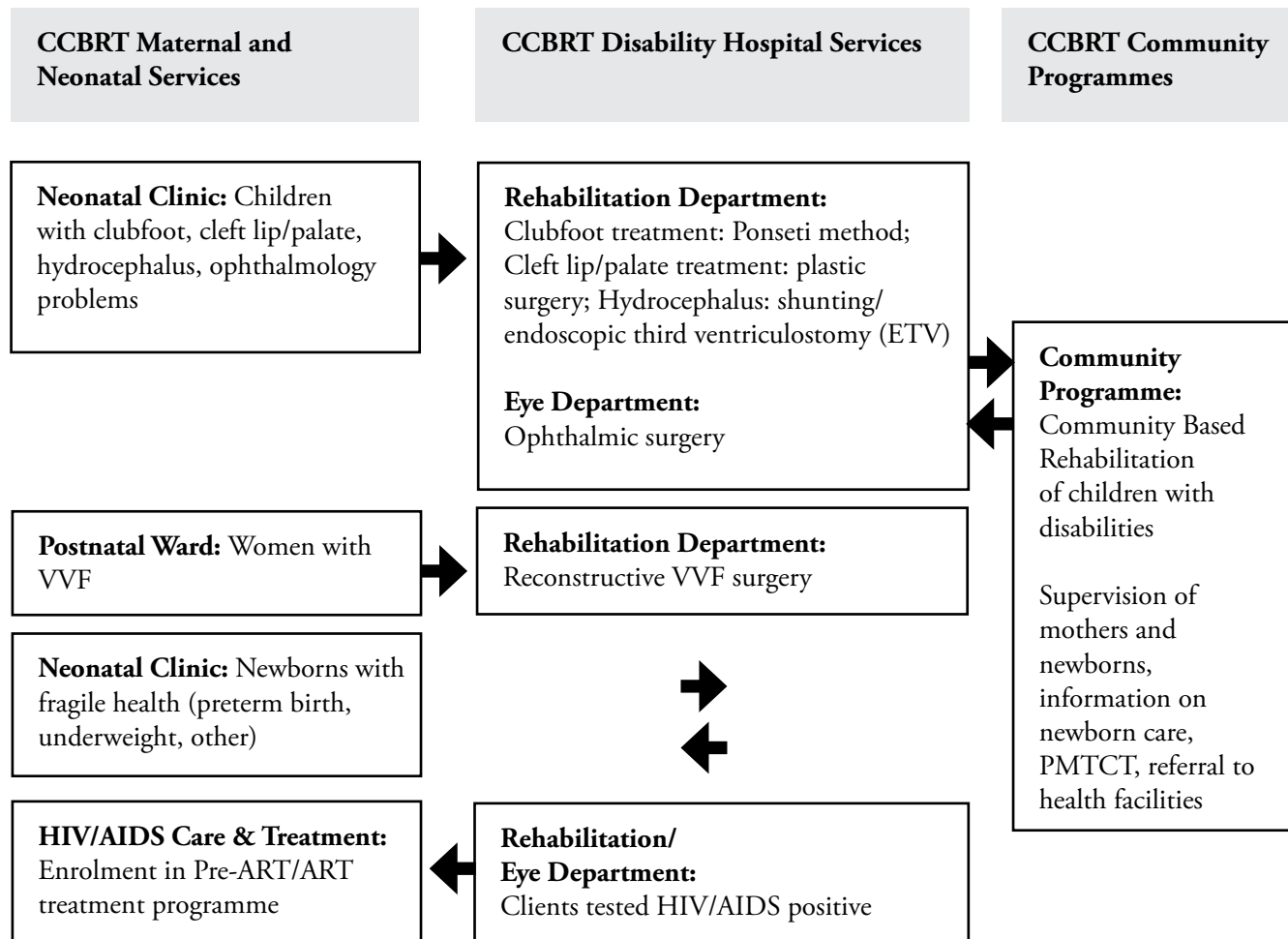
ANNEX 6: CCBRT COLLABORATION CHART



ANNEX 7: CCBRT'S  
ORGANISATIONAL STRUCTURE



ANNEX 8: INTERNAL REFERRAL CHART



ANNEX 9: ENTRY POINTS FOR HIV/AIDS COMPREHENSIVE CARE AND TREATMENT

Prevention of mother-to-child transmission of HIV and care and treatment of HIV positive families will be provided as an integrated part of comprehensive maternal and neonatal health services. Over the continuity of care as portrayed in the figure above there are a number of entry points for integrated HIV/AIDS related services.

**Entry point 1: Antenatal Clinic**

The antenatal clinic (ANC) is the first and most important entry point for HIV related services at the maternity hospital, as it offers at an early stage of pregnancy an opportunity for provider-initiated testing and counselling (PITC). Experience from other settings shows that through implementing PITC a high proportion of ANC

attendees (up to 98%) agrees to be HIV tested. With the relative high prevalence of HIV infection among ANC women in Dar es Salaam (10% in 2008), PITC will be an important intervention and will increase the uptake of PMTCT.

Women who are found HIV negative will receive apart from quality obstetric care also counselling on how to stay HIV negative (HIV-), through safer sex using condoms during pregnancy and thereafter. The sexual partner should, as much as possible, also be engaged, for Voluntary Counselling and Testing (VCT) and STI examination and together the couple will be counselled on Family Planning (FP) after birth. Counselling and support for infant feeding will be arranged before delivery. Women are advised to attend – together with partner, relative or friend – health education sessions.

Women who are found HIV positive (HIV+) will follow a far more intensive track: The CD4 count and clinical staging will determine whether the woman needs already antiretroviral treatment (ART) from the beginning. Such decisions need to be made by a well-trained clinician, a member of the CTC team, who will assess the eligibility and readiness to start ART. Next - for those not needing ART immediately - is the provision of prophylactic ARVs as part of PMTCT, starting from week 28, all according to NACP guidelines. Throughout pregnancy HIV+ women will receive preventive treatment with Co-trimoxazol and be checked for Opportunistic Infections (OIs), including cough and possible TB (cough for two weeks or more).

Infant feeding counselling will be started before labour, to ensure proper understanding by the mother of the different options. Preferably, a choice is made before delivery. Involving the partner is of crucial importance, to know his HIV status, to discuss interventions aiming at preventing possible re-infection and STIs, also life-long adherence to ART for the partner (or both of them). Involvement of family will be sought whenever possible.

Besides all these HIV related interventions, normal antenatal care will be provided and during labour, safer obstetrical practices implemented, to reduce the risk of MTCT. Immediately after completing normal postpartum care, the infant of an HIV+ mother will be given the prophylactic ARVs for the correct duration as prescribed. See also Annex 10: flow chart on PMTCT, for a detailed graphical representation.

#### ***Entry point 2: Normal Labour and Delivery***

Some pregnant women may enter CCBRT Maternity Hospital when labour has already started without previous antenatal visits. An HIV test will be performed and if found positive, the mother should be explained the result and start ARV prophylaxis immediately, during labour, according to PMTCT guidelines. Additional HIV post-test counselling may need to be postponed till after delivery. If testing during labour is not possible, this should be done during the immediate postpartum period, before hospital discharge, so that the mother may receive proper HIV care if found positive. If she is found HIV+, her infant can still receive ARV prophylaxis within 72 hours after delivery to try and prevent transmission.

#### ***Entry point 3: Emergency Obstetric Care***

The same as under entry point 2 applies here: when possible an HIV test will be done before the procedure or operation, so the mother can be given ARVs. The child will receive HIV prophylaxis immediately after birth, according to PMTCT guidelines. After emergency obstetric care, the mother will be assessed for signs and symptoms of HIV infection and AIDS and be treated accordingly.

#### ***Entry point 4: Postnatal clinic, especially the first three days postpartum***

Any mother coming to CCBRT Maternity Hospital, spontaneously or referred from other hospitals for postpartum complications, with a child born less than 72 hours earlier, will be tested for HIV (PITC) and the child of a HIV+ mother should receive the prescribed dosages of ARVs, according to PMTCT guidelines. If it is more than 3 days after birth, ARVs are of no use. All mothers should be assessed for signs and symptoms of HIV infection and AIDS and be treated accordingly. Normal postpartum care will be offered to all. The HIV exposed child should be followed up with Polymerase Chain Reaction (PCR) tests as indicated in the flow chart.

#### ***Entry point 5: ANC / Abortion Care***

Spontaneous abortion, occurring in about 10% of pregnancies, may lead some women to consult the ANC or outpatient department of the Maternity Hospital. This is another entry point for starting HIV care. If EmOC procedures are needed, these should be followed by ANC/STI/FP services, including knowing HIV status and counselling on the results.

#### ***Entry point 6: Voluntary Counselling and Testing/ Care and Treatment Clinic***

The HIV/AIDS Care and Treatment Clinic (CTC) will do follow-up of all persons who consulted any of the hospital's departments and were found HIV+ (maternity department, disability dpt., eye dpt.). The CTC may also, as a normal part of the functioning of a regional hospital, receive directly people who come voluntarily from the surrounding catchment area. They should be counselled and tested, if found HIV+ be counselled and assessed for AIDS and possible start of ART.

***Entry point 7: ANC / Well-baby clinics / immunisations***

New attendees, not previously seen for maternal or child health problems, will be asked about knowledge of their HIV status. If the mother is HIV+, staff should check whether arrangements for follow-up of mother and child have been made elsewhere. If the woman does not know her HIV status, she will be encouraged to have the HIV test done immediately at the ANC or attend the VCT clinic, also as part of good care for the baby. The child will be tested also according to NACP guidelines (PCR test) and both should be offered services when found positive.

***Entry point 8: ANC / Family Planning Clinic***

The need for family planning (FP) will have been discussed with the large majority of attendees, most likely during antenatal care or after delivery at CCBRT Maternity Hospital. Staff at the FP clinic will discuss with any new FP attendees the need to know their HIV status and encourage them to have the HIV test done immediately, either at the ANC or at the VCT/C&T clinic. If found positive, the woman should be advised to also bring her partner and children for HIV testing and possible care.

***Entry point 9: STI Clinic***

To deal with attendees of the maternity and the consequently increased numbers of Sexual Transmitted Infections (STIs), the hospital will have a separate STI clinic, also in view of its efforts to always try and involve the partner in the necessary care. Together with other male and female STI clients, not linked to the ANC attendees, all these new persons should be asked about their HIV status and be encouraged to have the HIV test done immediately on the spot or referred to the VCT/CTC.

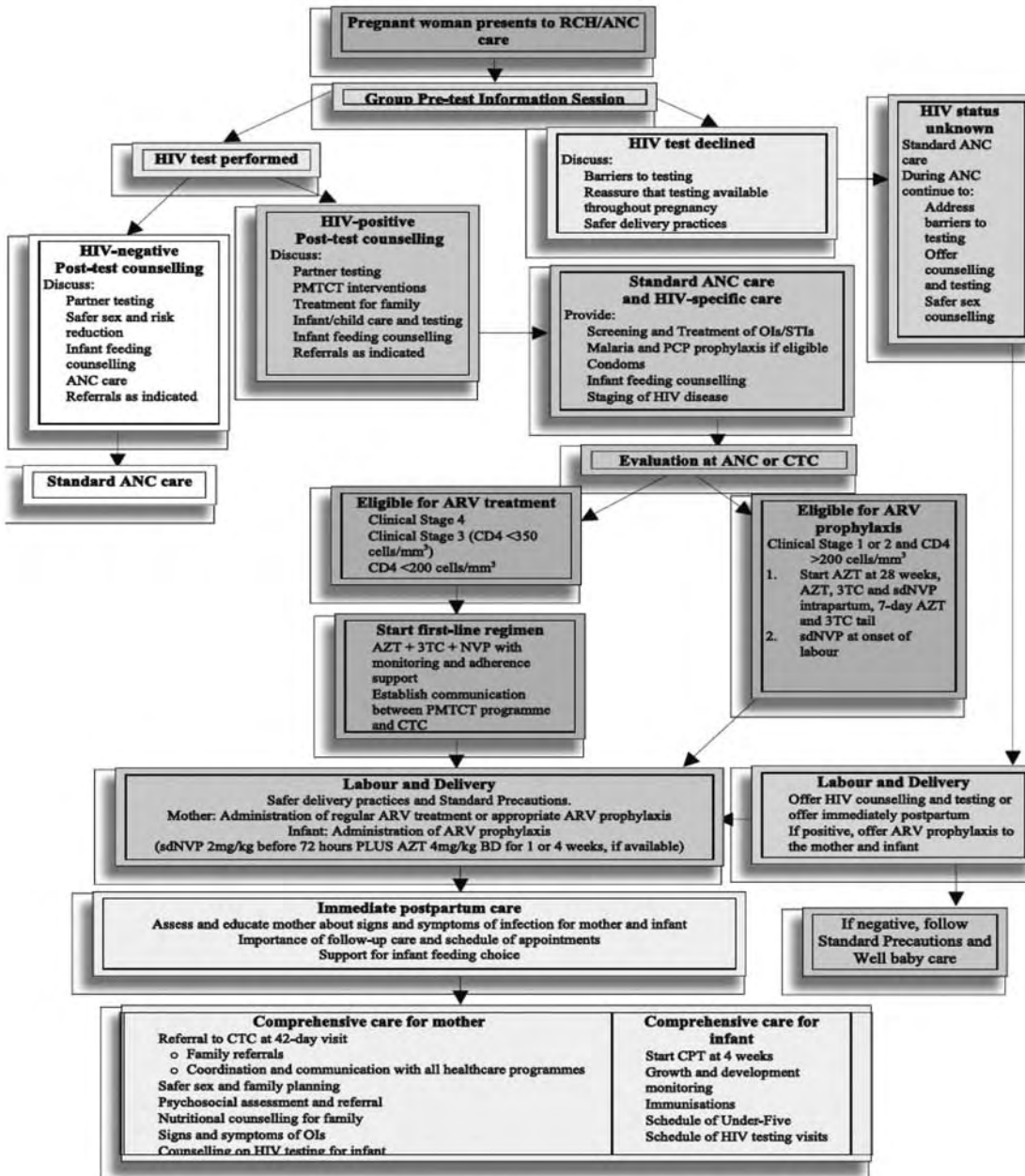
***Entry point 10: General Obs & Gyn OPD***

The general OPD for gynaecology and obstetrics, run by a medical specialist, will also be an entry point, either through PITC of women with signs and symptoms suspect for HIV/AIDS or as part of the general approach that a hospital should encourage people to know their HIV status and advise people to visit the VCT/CTC.

***Entry point 11: Other departments of CCBRT hospital***

Patients with unexplained complications during their admission in the other CCBRT departments and sick people attending the different OPDs may be advised to have an HIV test, either as PITC (for the clinician to better know how to treat the patient) or as VCT and referred to the CTC. Follow-up care should be offered as needed (see above).

ANNEX 10: COMPREHENSIVE CARE FOR PREVENTION OF MOTHER-TO-CHILD TRANSMISSION OF HIV



Source: Tanzania National PMTCT Guidelines 2007

## ANNEX 11: HEALTH SERVICES IN CCBRT MATERNITY HOSPITAL

### ***Obstetric Services:***

#### **Antenatal care**

- Antenatal care of normal pregnancies
- Antenatal care of high risk pregnancies (including multiple pregnancies)
- Identification and treatment of complications of pregnancy:
  - Urinary tract infection in pregnancy
  - Anaemia in pregnancy
  - Cardiac disease in pregnancy
  - Diabetes in pregnancy
  - Malaria in pregnancy
  - Pre-eclampsia
  - Preterm labour/Preterm premature rupture of the membranes
- Identification and treatment of obstetric emergencies:
  - Antepartum haemorrhage
  - Severe Pre-eclampsia/Eclampsia

#### **Intrapartum care**

- Normal labour and delivery
- Comprehensive emergency obstetric care

#### **Postpartum care**

- Postnatal care
- Identification and treatment of early postpartum complications:
  - Postpartum haemorrhage
  - Repair of complicated trauma to the birth canal
- Identification and treatment of late postpartum complications:
  - Puerperal infections
  - Breast infections
  - Postpartum depression
  - Puerperal psychosis

### ***Neonatal Services:***

#### **Care of the normal newborn**

- Treatment of neonatal complications:
  - Neonatal asphyxia and resuscitation
  - Preterm infants
  - Management of respiratory distress
  - Birth injuries

- Infants of diabetic mothers
- Jaundice
- Rhesus-immunization prophylaxis
- Early identification and treatment of congenital anomalies and disabilities

### ***Gynaecological Services:***

- Post abortion care:
  - Incomplete abortion
  - Septic abortion
- Surgery for obstetric fistula
- Prolaps and transvaginal operations
- Basic infertility treatment
- Pelvic inflammatory disease including abscesses
- Screening for cervical cancer and conisation
- (Neoplasms are otherwise referred to Ocean Road Cancer Institute)
- Ectopic pregnancy

### ***Family Planning Services:***

- Hormonal contraceptives
- Intrauterine contraceptive devices
- Barrier methods
- Surgical contraception (vasectomy/bilateral tubal ligation)

### ***HIV/AIDS Services:***

- Provider Initiated Testing and Counselling
- Prevention of Mother-To-Child Transmission of HIV
- Diagnosis and staging of AIDS
- Provision of ART
- Voluntary Counselling and Testing
- Continued care and treatment at CTC of HIV positive women, their infants and their partners
- Information, education and communication
- Staff initiatives – (workplace programme) prevention, needle-prick/injuries, post exposure prophylaxis (PEP)

### ***Sexually Transmitted Infections:***

- Treatment of genital discharge in the female
- Dysuria in the female
- Treatment of gonorrhoea and urethral discharge
- Genital ulcers
- Buboec or swollen inguinal glands
- Sexual assaults – counselling, PEP

## ANNEX 12: CCBRT MATERNITY HOSPITAL DEPARTMENTS, WARDS AND UNITS

Outpatient Primary Health Care Unit	Outpatient Maternity Hospital	Inpatient	Service support systems	Additional
ANC clinic	ANC complicated cases	Emergency reception	Laboratory	Library
PNC clinic	PNC complicated cases	Antenatal ward	Blood bank	Teaching facilities
Child welfare clinic	Neonatal clinic	Delivery room complicated cases	Pharmacy	Staff rooms (24h)
STI clinic	STI clinic complicated cases	Postnatal Ward	Ultrasound	Mortuary
Health education unit	Obstetric and Gyna unit including screening for cervical cancer	Neonatal ward	Registration and medical records	Management offices
Family planning unit	Fertility clinic	Maternal ICU	Health engineering unit (Including communication)	
CTC including PITC, VCT, PMTCT, also for partners		Neonatal ICU	Transport unit including workshop	
		Theatre and anaesthesia	Sterilisation	
		Gynaecological ward including post abortion care patients	Laundry	
		Ultrasound	Kitchen	

## ANNEX 13: WHO CARE IN PREGNANCY, CHILDBIRTH AND POSTPARTUM PERIOD FOR MOTHER AND NEWBORN INFANT

	<b>Routine care</b> (offered to all women and babies)	<b>Additional care</b> (for women and babies with moderately severe diseases and complications)	<b>Specialized - obstetrical and neonatal care</b> (for women and babies with severe diseases and complications)
<b>Pregnancy care - 4 visits</b> <i>Essential</i>	<ul style="list-style-type: none"> <li>Confirmation of pregnancy</li> <li>Monitoring of progress of pregnancy and assessment of maternal and fetal well-being</li> <li>Detection of problems complicating pregnancy (e.g., anaemia, hypertensive disorders, bleeding, malpresentations, multiple pregnancy)</li> <li>Respond to other reported complaints.</li> <li>Tetanus immunization, anaemia prevention and control (iron and folic acid supplementation)</li> <li>Information and counselling on self care at home, nutrition, safer sex, breastfeeding, family planning, healthy lifestyle</li> <li>Birth planning, advice on danger signs and emergency preparedness</li> <li>Recording and reporting</li> <li>Syphilis testing</li> </ul>	<ul style="list-style-type: none"> <li>Treatment of mild to moderate pregnancy complications: <ul style="list-style-type: none"> <li>mild to moderate anaemia</li> <li>urinary tract infection</li> <li>vaginal infection</li> </ul> </li> <li>Post abortion care and family planning</li> <li>Pre-referral treatment of severe complications <ul style="list-style-type: none"> <li>pre-eclampsia</li> <li>eclampsia</li> <li>bleeding</li> <li>infection</li> <li>complicated abortion</li> </ul> </li> <li>Support for women with special needs e.g. adolescents, women living with violence</li> <li>Treatment of syphilis (woman and her partner)</li> </ul>	<ul style="list-style-type: none"> <li>Treatment of severe pregnancy complications: <ul style="list-style-type: none"> <li>anaemia</li> <li>severe pre-eclampsia</li> <li>eclampsia</li> <li>bleeding</li> <li>infection</li> <li>other medical complications</li> </ul> </li> <li>Treatment of abortion complications</li> </ul>

<i>Situational</i>	<ul style="list-style-type: none"> <li>• HIV testing and counselling</li> <li>• Antimalarial Intermittent preventive treatment (IPT) and promotion of insecticide treated nets (ITN)</li> <li>• Deworming</li> <li>• Assessment of female genital mutilation (FGM)</li> </ul>	<ul style="list-style-type: none"> <li>• Prevention of mother to child transmission of HIV (PMTCT) by antiretroviral treatment (ART), infant feeding counselling, mode of delivery advice</li> <li>• Treatment of mild to moderate opportunistic infections</li> <li>• Treatment of uncomplicated malaria</li> </ul>	<ul style="list-style-type: none"> <li>• Treatment of severe HIV infection</li> <li>• Treatment of complicated malaria</li> </ul>
<p><b>Childbirth Care</b> (labour, delivery, and immediate postpartum) <i>Essential</i></p>	<ul style="list-style-type: none"> <li>• Care during labour and delivery <ul style="list-style-type: none"> <li>- Diagnosis of labour</li> <li>- Monitoring progress of labour, maternal and fetal well-being with partograph</li> <li>- Providing supportive care and pain relief</li> <li>- Detection of problems and complications (e.g. malpresentations, prolonged and/or obstructed labour, hypertension, bleeding, and infection)</li> <li>- Delivery and immediate care of the newborn baby, initiation of breastfeeding</li> <li>- Newborn resuscitation</li> <li>- Active management of third stage of labour</li> </ul> </li> <li>• Immediate postnatal care of mother <ul style="list-style-type: none"> <li>- Monitoring and assessment of maternal well being, prevention and detection of complications (e.g. hypertension, infections, bleeding, anaemia)</li> <li>- Treatment of moderate post-haemorrhagic anaemia</li> <li>- Information and counselling on home self care, nutrition, safe sex, breast care and family planning</li> <li>- Postnatal care planning, advice on danger signs and emergency preparedness</li> </ul> </li> <li>• Recording and reporting</li> </ul>	<ul style="list-style-type: none"> <li>• Treatment of abnormalities and complications (e.g. prolonged labour, vacuum extraction; breech presentation, episiotomy, repair of genital tears, manual removal of placenta)</li> <li>• Pre-referral management of serious complications (e.g. obstructed labour, fetal distress, preterm labour, severe peri- and postpartum haemorrhage)</li> <li>• Emergency management of complications if birth imminent</li> <li>• Support for the family if maternal death</li> </ul>	<ul style="list-style-type: none"> <li>• Treatment of severe complications in childbirth and in the immediate postpartum period, including caesarean section, blood transfusion and hysterectomy); <ul style="list-style-type: none"> <li>- obstructed labour</li> <li>- malpresentations</li> <li>- eclampsia</li> <li>- severe infection</li> <li>- bleeding</li> </ul> </li> <li>• Induction and augmentation of labour</li> </ul>
<i>Situational</i>	<ul style="list-style-type: none"> <li>• Vitamin A administration</li> </ul>	<ul style="list-style-type: none"> <li>• Prevention of mother-to-child transmission of HIV by mode of delivery, guidance and support for chosen infant feeding option</li> </ul>	<ul style="list-style-type: none"> <li>• Management of complications related to FGM</li> </ul>

	<b>Routine care</b> (offered to all women and babies)	<b>Additional care</b> (for women and babies with moderately severe diseases and complications)	<b>Specialized - obstetrical and neonatal care</b> (for women and babies with severe diseases and complications)
<b>Postnatal maternal care</b> (up to 6 weeks) <i>Essential</i>	<ul style="list-style-type: none"> <li>• Assessment of maternal wellbeing</li> <li>• Prevention and detection of complications (e.g. infections, bleeding, anaemia)</li> <li>• Anaemia prevention and control (iron and folic acid supplementation)</li> <li>• Information and counselling on nutrition, safe sex, family planning and provision of some contraceptive methods</li> <li>• Postnatal care planning, advice on danger signs and emergency preparedness</li> <li>• Provision of contraceptive methods</li> </ul>	<ul style="list-style-type: none"> <li>• Treatment of some problems (e.g. mild to moderate anaemia, mild puerperal depression)</li> <li>• Pre-referral treatment of some problems (e.g. severe postpartum bleeding, puerperal sepsis)</li> </ul>	<ul style="list-style-type: none"> <li>• Treatment of all complications <ul style="list-style-type: none"> <li>- severe anaemia</li> <li>- severe postpartum bleeding</li> <li>- severe postpartum infections</li> <li>- severe postpartum depression</li> </ul> </li> <li>• Female sterilization</li> </ul>
<i>Situational</i>	<ul style="list-style-type: none"> <li>• Promotion of ITN use</li> </ul>	<ul style="list-style-type: none"> <li>• Treatment of uncomplicated malaria</li> </ul>	<ul style="list-style-type: none"> <li>• Treatment of complicated malaria</li> </ul>
<b>Newborn care</b> (birth and immediate postnatal) <i>Essential</i>	<ul style="list-style-type: none"> <li>• Promotion, protection and support for breastfeeding</li> <li>• Monitoring and assessment of wellbeing, detection of complications (breathing, infections, prematurity, low birthweight, injury, malformation)</li> <li>• Infection prevention and control, rooming-in</li> <li>• Eye care</li> <li>• Information and counselling on home care, breastfeeding, hygiene</li> <li>• Postnatal care planning, advice on danger sign and emergency preparedness</li> <li>• Immunization according to the national guidelines (BCG, HepB, OPV-0)</li> </ul>	<ul style="list-style-type: none"> <li>• Care if moderately preterm, low birth weight or twin: support for breastfeeding, warmth, frequent assessment of wellbeing and detection of complications e.g. feeding difficulty, jaundice, other perinatal problems</li> <li>• Kangaroo Mother Care follow-up</li> <li>• Treatment of mild to moderate <ul style="list-style-type: none"> <li>- local infections (cord, skin, eye, thrush)</li> <li>- birth injuries</li> </ul> </li> <li>• Pre-referral management of infants with severe problems: <ul style="list-style-type: none"> <li>- very preterm babies and/or birth weight very low</li> <li>- severe complications</li> <li>- malformations</li> </ul> </li> <li>• Supporting mother if perinatal death</li> </ul>	<ul style="list-style-type: none"> <li>• Management of severe newborn problems - general care for the sick newborn and management of specific problems: <ul style="list-style-type: none"> <li>- preterm birth</li> <li>- breathing difficulty</li> <li>- sepsis</li> <li>- severe birth trauma and asphyxia</li> <li>- severe jaundice</li> <li>- Kangaroo Mother Care (KMC)</li> </ul> </li> <li>• Management of correctable malformations</li> </ul>
<i>Situational</i>	<ul style="list-style-type: none"> <li>• Promotion of sleeping under ITN</li> </ul>	<ul style="list-style-type: none"> <li>• Presumptive treatment of congenital syphilis</li> <li>• Prevention of mother-to-child transmission of HIV by ART</li> <li>• Support for infant feeding of maternal choice</li> </ul>	<ul style="list-style-type: none"> <li>• Treatment of: <ul style="list-style-type: none"> <li>- congenital syphilis</li> <li>- neonatal tetanus</li> </ul> </li> </ul>
<b>Postnatal newborn care</b> (visit from/at home) <i>Essential</i>	<ul style="list-style-type: none"> <li>• Assessment of infant's wellbeing and breastfeeding</li> <li>• Detection of complications and responding to maternal concerns</li> <li>• Information and counselling on home care</li> <li>• Additional follow-up visits for high risk babies (e.g. preterm, after severe problems, on replacement feeding)</li> </ul>	<ul style="list-style-type: none"> <li>• Management of: <ul style="list-style-type: none"> <li>- minor to moderate problems and</li> <li>- feeding difficulties</li> </ul> </li> <li>• Pre-referral management of severe problems: <ul style="list-style-type: none"> <li>- convulsions</li> <li>- inability to feed</li> </ul> </li> <li>• Supporting the family if perinatal death</li> </ul>	<ul style="list-style-type: none"> <li>• Management of severe newborn problems: <ul style="list-style-type: none"> <li>- sepsis</li> <li>- other infections</li> <li>- jaundice</li> <li>- failure to thrive</li> </ul> </li> </ul>
<p style="text-align: center;"> <input type="checkbox"/> <b>Routine care</b>                                          <input type="checkbox"/> <b>Additional care</b>                                          <input checked="" type="checkbox"/> <b>Specialized - Obstetrical and neonatal care</b> </p>			

Source: WHO Recommended Interventions for Improving Maternal and Newborn Health (first edition 2007, second edition 2009)

## ANNEX 14: MDGs, MKUKUTA & THE “ONE PLAN” TARGETS/INDICATORS

The three health-related Millennium Development Goals have the following targets and indicators:

### ***Goal 4: Reduce child mortality***

#### **Target:**

- Between 1990 and 2015, reduce by two-thirds the under-five mortality rate

#### **Indicators:**

- Under-five mortality rate \*
- Infant mortality rate\*
- Proportion of 1 year-old children immunized against measles

### ***Goal 5: Improve maternal health***

#### **Targets:**

- Between 1990 and 2015, reduce by three-quarters the maternal mortality ratio
- By 2015, achieve universal access to reproductive health

#### **Indicators:**

- Maternal mortality ratio
- Proportion of births attended by skilled health personnel
- Contraceptive prevalence rate
- Antenatal care coverage
- Unmet need for family planning
- Adolescence birth rate

### ***Goal 6: Combat HIV/AIDS, malaria and other diseases***

#### **Targets:**

- By 2015, have halted and begin to reverse the spread of HIV/AIDS
- By 2015, have halted and begin to reverse the incidence of malaria and other major diseases

#### **Indicators:**

- HIV prevalence among pregnant women aged 15-24 years\*
- Condom use rate of the contraceptive prevalence rate\*
- Condom use at last high-risk sex
- Percentage of population aged 15-24 years with comprehensive correct knowledge of HIV/AIDS

- Contraceptive prevalence rate
- Prevalence and death rates associated with malaria
- Prevalence and death rates associated with tuberculosis
- Proportion of population in malaria-risk areas using effective malaria prevention and treatment measures\*
- Proportion of tuberculosis cases detected and cured under directly observed treatment (short course DOTS)

### ***The MKUKUTA targets related to reproductive health by 2010 are:***

- To reduce maternal mortality from 578 to 265 per 100,000 live births
- To reduce infant mortality from 99 to 50 per 1,000 live births
- To reduce under-five mortality from 112 to 79 per 1,000 live births

### ***The “One Plan” targets by 2015 are:***

- To reduce maternal mortality from 578 to 193 per 100,000 live births
- To reduce neonatal mortality from 32 to 19 per 1,000 live births
- To reduce under-five mortality from 112 to 54 per 1,000 live births

### ***The UNGASS - Universal access to ARV programmes by 2010: Targets:***

- 95% of women and men aged 15-24 both correctly identify ways of preventing the sexual transmission of HIV and reject major misconceptions about HIV transmission.
- 25% of reduction globally of young women and men aged 15-24 who are HIV infected
- 50% reduction of infants born to HIV infected mothers who are infected

#### **Indicators:**

- Percentage of adults and children with HIV still alive 12 months after initiation of antiretroviral therapy (extend to 2, 3, 5 years as programme matures)
- Percentage of infants born to HIV infected mothers who are HIV infected

\* Not available in routine HMIS. It can be obtained from household surveys.

**Global Fund, HIV indicators:**

- Number of people with advanced HIV infection currently receiving antiretroviral combination therapy (ARV)
- Number of people counseled and tested for HIV including provision of test results
- Number of HIV-positive pregnant women receiving a complete course of antiretroviral prophylaxis to reduce mother-to-child transmission (PMTCT)
- Number of condoms distributed to people
- Number of people benefiting from community-based programmes (a. Prevention; b. Orphan support; c. Care and support)
- Number of cases treated for infections associated with HIV (a. Preventive therapy for TB/HIV; b. STIs with counselling)
- Number of service deliverers trained according to documented guidelines (a. Health services; b. Peer and community programmes)

---

**ANNEX 15: CCBRT MATERNITY HOSPITAL INDICATORS****Overall performance indicators:**

- Maternal mortality ratio
- Maternal Case fatality rate
- Perinatal mortality rate

**Reproductive health service delivery indicators:**

- Births attended by skilled health personnel
- Availability of comprehensive essential obstetric care – 8 signal functions:
  - Administration of parenteral antibiotics
  - Administration of parenteral oxytocic drugs
  - Administration of parenteral anticonvulsants for pregnancy induced hypertension
  - Performance of manual removal of placenta
  - Performance of removal of retained products (e.g. vacuum aspiration)
  - Performance of assisted vaginal delivery (e.g. ventouse, forceps)
  - Performance of surgery (e.g. Caesarean section) and
  - Performance of blood transfusion.
- Prevalence of HIV infection in pregnant women
- Percentage of HIV positive women receiving ARVs for PMTCT
- Prevalence of anaemia in women
- Percentage of obstetric and gynaecological admissions owing to abortion
- Proportion of women attending ANC at least 4 times during pregnancy
- Percentage of women who received two doses of malaria prophylactic treatment during pregnancy
- Pregnant mothers at risk – cases and number referred

- Cesarean section rate – mode of delivery
- New FP acceptors
- Proportion of post abortion care patients accepting Family Planning
- Percentage of maternal and perinatal deaths audited

**Neonatal service delivery indicators:**

- Neonatal mortality rates
- Prevalence of low birth weight
- Tetanus Toxoid (two doses) coverage
- Number with disabilities identified

**HIV/AIDS service indicators:**

- Enrolment of patients for HIV related services at entry points
- Percentage of first time ANC attendees HIV tested through PITC
- Percentage of HIV+ pregnant women accepting PMTCT and starting prophylaxis at 28 weeks
- Percentage of exposed infants receiving ARV prophylaxis according to guidelines

**Management indicators:**

- Percentage of patients referred
- Bed occupancy rate
- Total discharges
- Total outpatients
- Average length of stay
- Top ten causes of admissions
- Number of deaths per total admission = institutional crude death rate
- Complications
- Number of deaths per total admissions
- Number of nurse/midwives per delivery

**Community programme indicators:**

- Number of women and/or newborns referred from CCBRT Maternity Hospital to CCBRT Community Programmes (CP)
- Number of women referred to CCBRT Maternity Hospital by CP
- Number of women registered at CCBRT Maternity Hospital as result of Community Programme referral
- Number of women and/or newborns referred to other health facilities
- Number of women receiving home visits per month/year
- Number of newborns with caregivers attending support units per month/year
- Number of women and newborns discharged from CP
- Number and attendance of education sessions at community facilities and schools

**Finance indicators:**

- Annual inpatient gross revenue (categories: private, by-passers, other chargeable services)
- Annual outpatient gross revenue (categories: private, by-passers, other chargeable services)
- Service cost per client category (Outpatient, Inpatient) – average length of stay
- Operating expenses
- Personnel expenses (Salary/Benefits) as percentage of total operating budget
- Administrative expenses as percentage of total operating budget
- Annual supply expense (medical/non-medical) as percentage of total operating budget
- Annual maintenance expenses as percentage of the total operating budget
- Inventory turnover
- Total assets turnover
- Annual contribution by GoT to salaries, supplies, consumables and equipment
- Annual contributions from national and international partners

---

**ANNEX 16: BUDGET**
**CCBRT Maternity Hospital Budget (Euro) 2010 - 2014\***

Item	2010	2011	2012	2013	2014	Total
<b>Recurrent Costs (Euro)</b>			yearly inflation rate 15%			
Human Resources	114,000	1,406,400	1,925,400	2,113,600	2,325,000	7,884,400
Administration & Running Costs	50,000	439,900	481,800	528,900	581,800	2,082,400
Drugs & Medical Supplies		57,500	63,000	69,200	76,100	265,800
Community Programme		35,000	37,700	41,400	45,500	159,600
Sub Total	164,000	1,938,800	2,507,900	2,753,100	3,028,400	10,392,200
<b>Capital Investment (Euro)</b>			depreciation by 20% per year			
Construction	4,170,000	1,000,000				5,170,000
Furniture & Equipment		438,500		43,400	41,500	438,500
Medical Equipment		550,000		48,300	46,200	550,000
Sub Total	4,170,000	1,988,500		91,700	87,700	6,337,900
<b>TOTAL</b>	<b>4,334,000</b>	<b>3,927,300</b>	<b>2,507,900</b>	<b>2,844,800</b>	<b>3,116,100</b>	<b>16,730,100</b>

*\*These are estimated figures and they are subject to exchange rate fluctuations*

**Beneficiary:**

CCBRT Headquarters  
Msasani Village  
Kimweri Road  
P.O Box 23310  
Dar es Salaam

**Bank:**

Bank of Africa (T) Limited  
NDC Building Kivukoni / Ohio Street  
P.O Box 3054  
Dar es Salaam



**Currency:** EUR

**Account No:** 0201 108 012

**Currency:** USD

**Account No:** 0200 952 006

**Currency:** TSH

**Account No:** 0200 952 014

**Account name:**

CCBRT

**Swift:**

EUAFTZTZ



*“We ourselves feel that what we are doing is but a drop in the ocean. But the ocean would be less because of that missing drop.” Mother Teresa*

CCBRT Headquarters: P.O. Box 23310, Dar es Salaam, Tanzania  
Tel: +255 (0)22 260 1543 or 260 2192 | Fax:+255 (0)22 260 1544 | Email: info@ccbrrt.or.tz  
www.ccbrrt.or.tz | www.baobabhospital.co.tz