

# Data Collection Survey on Health Sector

## Country Report United Republic of Tanzania

October 2012

Japan International Cooperation Agency  
(JICA)

KRI International Corp.

TAC International Inc.

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This report is prepared to support JICA's country operation in health through strategic programming. The contents, however, may need to be supplemented with the latest and more detailed information by the readers since the report is mainly based on literature review and not on field study, with the exception of some countries.

## Foreword

### **Background**

The current situation surrounding the health sector in developing countries has been changing, especially at the start of the 21<sup>st</sup> century. Based on the recommendations from the concept of “Macroeconomics and Health”<sup>1</sup>, development assistance for health has greatly increased to accelerate efforts to achieve the Millennium Development Goals (MDGs) by 2015. The development assistance for health has risen sharply from USD 10.9 billion to USD 21.8 billion in 2007<sup>2</sup>. Moreover, development assistance was harmonized by the common framework developed at the three consequent high-level forums in Rome (2003), in Paris (2005) and in Accra (2008).

Regardless of such favorable environmental changes for the health sector in developing countries, the outcomes do not seem to reach the level of expectation in many countries. Many developing countries, particularly Sub-Saharan African countries, will not achieve some of their MDGs 4 (Reduce child mortality), 5 (Improve maternal health) and 6 (Combat HIV/AIDS, malaria and other diseases) by 2015. Therefore, while raising more money for health is crucial for lower-income countries striving to move closer to universal coverage<sup>3</sup>; “More Money for Health”<sup>4</sup>, it is just as important to get the substantial health gains out of the resources available; “More Health for Money”<sup>5</sup>. Efficiency is a measure of the quality and/or quantity of output of services for a given level of input, and improving efficiency should also be seen as a means of extending coverage for the same cost and the improved health outcomes.

Considering this situation surrounding the health sector in developing countries, in a recent movement of its development assistance work, JICA has been working on country-based analytical work. This consists of macro level and sector wide analytical work aiming to clarify JICA’s aid direction in each country by looking at priority areas of concern and aid mapping. The purpose of the Data Collection Survey on Health Sector is to contribute to JICA’s analytical work efforts. In the past, JICA’s analytical efforts were concentrated on the project planning purpose, as a consequence, information gathered in such analytical works were naturally limited to be around the particular projects. It is therefore thought to be important for JICA to conduct a country-based health sector review to gather complete information and analyze the whole sector to learn about the situation of the country and identify high priority problems and issues to be tackled in the health system.

### **Objectives of the Study**

The key to the formulation of a good project is having conducted thorough sector reviews. Good sector reviews and analyses help us to understand the health situation and its determinants, and the capacity for health project implementation in the countries. They also help us to contribute to the countries for identifying the feasible projects in the context of priorities and developing the necessary policies and strategic planning for the health service delivery. It is also necessary to conduct such health sector review studies on a regular basis in order to develop and implement effective and efficient health projects. Based on this concept, JICA decided to carry out the sector review studies of 23 selected countries. The objectives of the sector review are to give recommendations to JICA on the aid direction for the health sector in each country, and to improve strategic approaches and the efficiency of aid cooperation.

### **Structure of the Report**

The health sector study country report consists of seven chapters. Chapter 1 is the summary of the socio-economic situation of each country. Chapter 2 is an analysis of the national health policy, strategic approaches, and plans. Chapter 3 describes the health situation of each country to show the priority health problems by using health information and data. Chapter 4 is an analysis of the health service delivery function of each country, while Chapter 5 is an analysis of other functions of the country’s health system namely: human resources for health, health information systems, essential medical products and technologies including the health facilities, health financing, and leadership and governance. Chapter 6 is an analysis of the development partners’ assistance and cooperation. Based on the above analysis, Chapter 7 provides recommendations to JICA on the strategic areas of cooperation and its approaches.

<sup>1</sup> WHO announced “Macroeconomics and Health: Investing in Health for Economic Development” in December, 2000. This regards Health is an intrinsic human right as well as a central input to poverty reduction and socioeconomic development and the process helps place health at the centre of the broader development agenda in countries.

<sup>2</sup> Ravishankar N., Gubbins P., Cooley J.R., et. al; June 2009; Financing of global health: tracking development assistance for health from 1990 to 2007; the Lancet 373:2113-2132

<sup>3</sup> According to WHO, Universal coverage (UC) is defined as ensuring that all people have access to needed promotive, preventive, curative and rehabilitative health services, of sufficient quality to be effective, while also ensuring that the use of these services does not expose the user to financial hardship.  
([http://www.who.int/health\\_financing/universal\\_coverage\\_definition/en/index.html](http://www.who.int/health_financing/universal_coverage_definition/en/index.html))

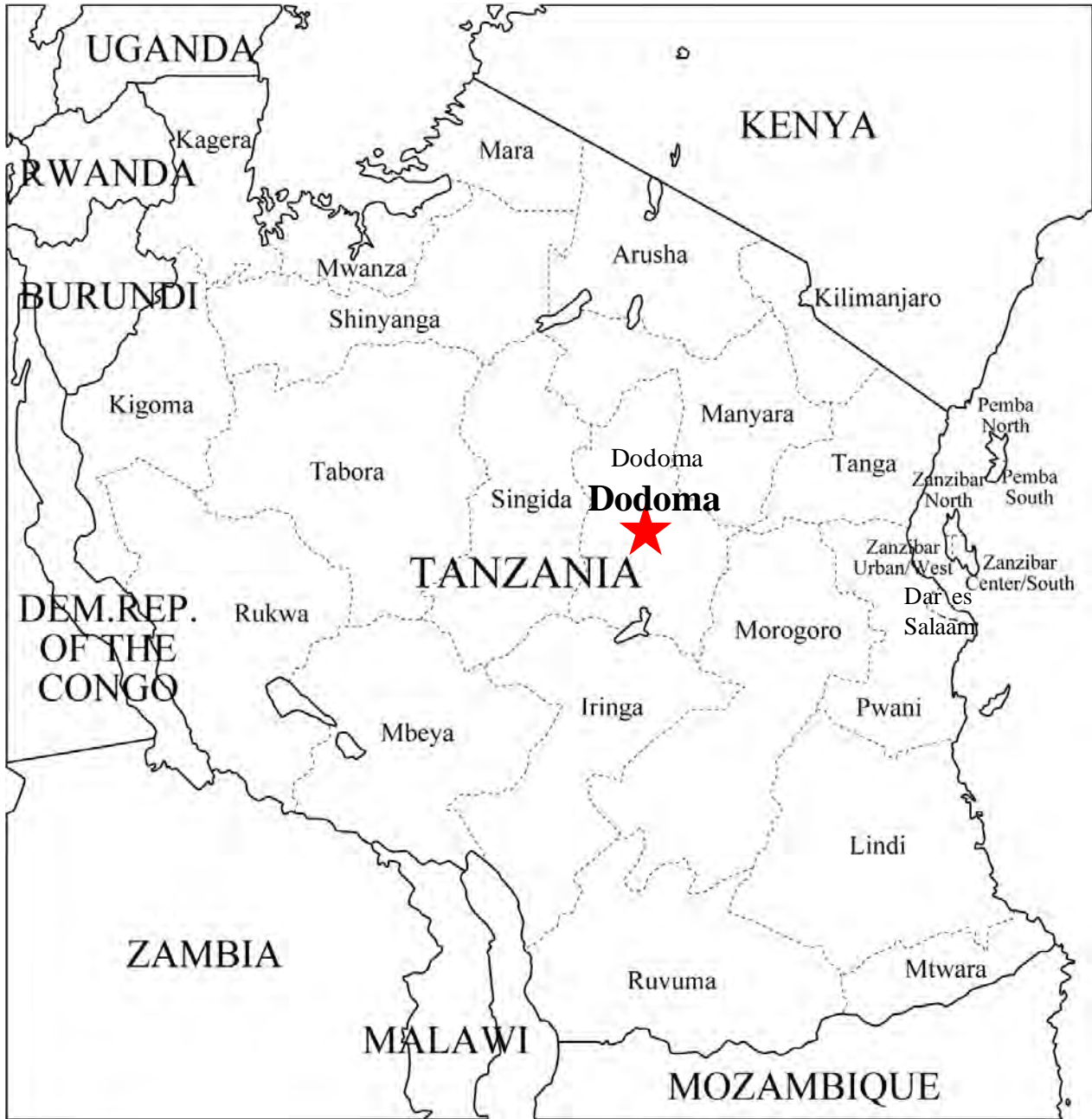
<sup>4</sup> In the World Health Report 2010 (WHO), the report advocates it with the following concrete three suggestions as the requirements; 1) Increase the efficiency of revenue collection, 2) Reprioritize government budgets, and 3) Innovative financing. As the forth suggestion, it advocates increasing development aid and making it work better for health.

<sup>5</sup> The World Health Report 2010 also suggests the needs of improving the efficacy in the health systems and eliminating the inefficiency/waste will enable the poor countries to improve the availability and quality of the services.

## Abbreviation and Acronyms

AfDB	African Development Bank
AIDS	Acquired Immune Deficiency Syndrome
ART	Anti-retroviral Therapy
ARV	Anti-retroviral Drug
BCG	Bacille Calmette Guerin
BMI	Body Mass Index
CCHP	Comprehensive Council Health Plan
CHMT	Council Health Management Team
CIDA	Canadian International Development Agency
CPD	Continuous Professional Development
CPE	Continuous Professional Education
CSO	Civil Society Organization
D-by-D	Decentralization by Devolution
DACC	District AIDS Control Coordinator
DEA	Data Envelopment Analysis
DFID	Department for International Development
DPT	Diphtheria, Pertussis, Tetanus
EPI	Expanded Programme on Immunization
EU	European Union
GBS	General Budget Support
GDP	Gross Domestic Product
GNI	Gross National Income
HB	Hepatitis B
HDI	Human Development Index
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
HMT	Hospital Management Team
HRH	Human Resources for Health
HRHSP	Human Resource for Health Strategic Plan
HSHP	Health Sector HIV and AIDS Strategic Plan
HSSP	Health Sector Strategic Plan
Hib	Haemophilus influenzae type B
IPT	Intermittent Preventive Treatment
ITN	Insecticide-Treated Mosquito Net
JAST	Joint Assistance Strategy for Tanzania
JBIC	Japan Bank for International Cooperation
JICA	Japan International Cooperation Agency
JOCV	Japan Overseas Cooperation Volunteers
LGRP	Local Government Reform Programme
M&E	Monitoring and Evaluation
MDG	Millennium Development Goal
MKUKUTA	Mkakati wa Kukuza Uchumi na Kupunguza Umaskini Tanzania
MMAM	Mpango sa Maendeleo wa Afya ya Mishingi
MNCH	Maternal, Newborn and Child Health

MOHSW	Ministry of Health and Social Welfare
MSD	Medical Stores Department
MTEF	Mid-Term Expenditure Framework
NACP	National AIDS Control Programme
NCD	Noncommunicable Disease
NGO	Non-Governmental Organization
NHA	National Health Account
NMCP	National Malaria Control Programme
NMSF	National Multi-sectoral Strategic Framework
NSGRP	National Strategy for Growth and Reduction of Poverty
P4P	Pay for Performance
PEPFAR	The President's Emergency Plan for AIDS Relief
PER	Public Expenditure Review
PHC	Primary Health Care
PHS	Primary Health Service
PHSDP	Primary Health Service Development Programme
PMO-RALG	Prime Minister's Office – Regional Administration and Local Government
PMTCT	Prevention of Mother to Child Transmission
PO-PSM	President Office Public Service Management
PPP	Public Private Partnership
PRS	Poverty Reduction Strategy
RACC	Regional AIDS Control Coordinator
RHMT	Regional Health Management Team
RMO	Regional Medical Officer
SADC	Southern African Development Community
SAM	Service Availability Mapping
SBAS	Strategic Budget Allocation System
SD	Standard Deviation
STI	Sexually Transmitted Infection
SWAps	Sector Wide Approaches
TACAIDS	Tanzania Commission for AIDS
TAS	Tanzania Assistance Strategy
TB	Tuberculosis
TDHS	Tanzania Demographic and Health Survey
TFR	Total Fertility Rate
TQIF	Tanzanian Quality Improvement Framework
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VCT	Voluntary Counseling and Testing
WHO	World Health Organization



Source: [http://www.freemap.jp/download.php?a=africa&c=africa\\_tanzania](http://www.freemap.jp/download.php?a=africa&c=africa_tanzania)

United Republic of Tanzania

## Summary

1. The United Republic of Tanzania (“Tanzania” hereafter) has been internally and economically stabilized after becoming independent in 1961. In the mid-1990s, the economy was growing with 3% growth rate of GDP; after the year 2002 the economy grew at the annual growth rate of 7%. Although there was a slight decline of population living below the basic need poverty line from 36% in 2000-2001 to 33% in 2007, still 19% (2001) of the population fell below the food poverty line.
2. In 1999, the Tanzanian Government and development partners formulated the first health sector strategic plan (HSSP I). Around the same time, the GOT agreed to enter a Sector Wide Approaches (SWAs) in health to strengthen the holistic approach in health planning. In 2000, the Health Basket Fund (HBS) was introduced; as a result, local government authorities strengthened the capacity to formulate needs-based health planning and budgeting, implementation and monitoring/evaluating their performance. This health sector reform linking with local government reform and Decentralization by Devolution (D-by-D) aims to transfer health management function to Local Government Authorities from the central health ministry. In recent years, MOHSW has been implementing the HSSP III (2009-2015) and all efforts are geared towards achieving the MDGs by 2015.

The GOT’s commitment to development in health has been increasing and has resulted in increased public funding from 143.6 million USD in 1999 to 427.5 million USD in 2006.

3. Along with the population’s health situation in Tanzania, HIV prevalence has been steadily declining and it has already achieved the MDG target of less than 6% by 2015. Although the rate is less than the average of eastern and southern African countries (7.2%), it is still much higher than the average of all African countries (3.9%) and the world average (0.8%). Malaria prevalence has also been showing a steady decline due to the vigorous efforts of the government to combat malaria. Mortality due to malaria in those under-five years of age and infants is showing a declining trend, however, the prevalence rate in those under-five years of age is still high. Though TB incidence increased between 1990 and 2000, it has been showing a declining trend since, and is expected to achieve its target by the year 2015.

On the other hand, maternal and neonatal mortalities remain high in Tanzania. MMR rose from 529 per 100,000 live births in 1990 to 578 per 100,000 live births in 2008, and then fell to 454 per 100,000 live births in 2010, however, this is still a much higher number compared to other countries. In 2008 the adjusted MMR shows that Tanzania’s MMR was 770 per 100,000 live births, while the average of the southern African countries was 550 per 100,000 live births and the world average was 260 per 100,000 live births. Neonatal deaths occupy 34% of under-five mortality. The neonatal mortality rate is declining at a slower pace than the under-five mortality rate but both rates are getting closer to the world average.

The problem of child growth due to nutritional deficiency is a major health issue especially among young children. 55% of those aged between 18 to 23 months were stunted in the DHS 2010, this is due to long-term nutritional deficiency. Child malnutrition fuels illnesses, undermines learning, erodes human capital and reduces labour productivity, ultimately affecting growth and labour market outcomes in adulthood.

4. The major problem of the health service function in Tanzania lies mainly in the accessibility and quality of primary level health services, which are essential to the improvement of maternal, newborn and child health status as well as disease specific programmes. The main constraints at the primary level health care services are insufficient in quality and quantity of health facilities and human resources. Insufficient antenatal care in its contents and quantity lead to home-based deliveries attended by non-skilled persons. In addition, insufficient emergency obstetric care (EmOC) in an area does not save mothers lives in the case of emergency. Disease control programmes, such as HIV/AIDS and malaria controls, have been supported mainly by external funding sources expanding the service coverage and improving the service quality. However, the concern is the sustainability of such external funding sources. Nutritional problems among young children and pregnant mothers are not merely the health sector’s responsibility but it is a cross-sectoral issue in its nature. Therefore it is important to have a coordination mechanism to coordinate all related ministries and agencies to improve the supply and distribution of foods, ultimately to improve the nutritional status of young children and pregnant mothers.



5. The main issue in health sector development is the shortage of human resources for health (HRH) in all cadres at all levels. In addition, concentration of HRH in urban areas, the brain-drain of highly skilled health workers to overseas and the lack of incentive packages for the health workers assigned to rural areas are the main policy issues which must be dealt with urgently. There are several main problems of health facilities: insufficient number of facilities, equipment and supplies, aging, insufficient supply of water and electricity, especially at the primary level. The health management information system (HMIS) has been improving in the health sector, but a problem lies in the separately running information systems parallel to HMIS. Several information systems on disease control are running parallel to the HMIS. It is important to integrate those parallel information systems in order to gain efficiency of health information systems. Also the usage of health information is another issue. In the area of health financing, the government expenditure on health accounted for 7.1% of total government expenditure in 2006, which was less than the Abuja Declaration target of 15%. Per capita total health expenditure increased from 13.89 USD in 2002/03 to 24.6 USD in 2005/06, however, it is still a lower number than the WHO recommended per capita health expenditure: 30 to 40 USD to cover a minimum package of health services. Moreover, the important question is how close the country is to spending the amount necessary for a universal package of basic services. Increasing funding from donors can lead to a question of fungibility and predictability of funds. MOHSW has been largely successful in transitioning from its extensive operational responsibilities at local level to a policy and technical support role in the health sector reform starting from 1994. MOHSW and PMO-RALG continue to experience difficulties in aligning their organizational cultures and structures, policies and processes. JICA supported project “Technical Cooperation in Capacity Development for Regional Referral Health management (2008-2011)” has given an impact on the capacity development of regional level health officers along with the policy change of funding the regional level by HBFs and also the project is binding the MOHSW and PMO-LARG functions. Although, significant progress has been seen in planning, budgeting and management of health services at council level by decentralization, still CCHP needs to be improved in the planning process to be a dynamic planning tool and more emphasis on increasing productivity could lead to more efficient use of human resources at local level.
6. Tanzania is one of the most advanced countries in terms of donor harmonization and aligned system of development cooperation. General Budget Support (GBS) was introduced in 2001 and the country gained more ownership on the use of donor funds. In the health sector as well, while all available projects and programmes are in use, the health basket fund has played a particularly important role in supporting the meaningful implementation of decentralization of responsibility for health services to the local level. National ownership has been strengthened and moreover, it is increasingly important for the global health initiatives and large bilateral programmes to align with the country’s policy direction and strategies.
7. Based on the situation and analysis mentioned above, it is recommended to JICA that in the Tanzanian health sector, after completing the recent on-going Health Management Capacity Development Programme (2011-2014), the focus could move on to strengthen the service delivery capacities at the PHC level. Several elements should be considered in strengthening the service delivery at the PHC. Through the study, some important pocket areas of concern were identified. The technical efficiency of health facilities should be strengthened. The area of HRH policy formulation such as incentive packages for health workers in the rural remote areas, brain-drain issues, equitable distribution of health workers between urban and rural areas, and so on are supported by JICA project for strengthening development of human resource for health, however, the implementation of such policies should be monitored to see the effectiveness of the policy changes. Health facility deployment should be based on a strategic health facility development plan to enhance the spatial efficiency of health facilities. Lastly, not only the capacity development of health management in the council level but also in the facility level the capacity should be strengthened by empowering the capacity of local health boards and committees. The health facilities should be strengthened by leveraging the financial support from HBFs.

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### Country Report United Republic of Tanzania

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## Chapter 1 Country Situation

The United Republic of Tanzania (“Tanzania” hereafter) has been internally and economically stabilized after becoming independent in 1961. In the mid-1990s, the economy was growing with 3% growth rate of GDP; after the year 2002, the economy grew at the annual growth rate of 7% due to many economic interventions and financial reforms. However, the achievement could have been much higher had the Tanzanian economy not been affected by daunting local and global challenges in recent years.

There was a slight decline of population living below the basic need poverty line from 36% in 2000-2001 to 33% in 2007, still 19% (2001) of the population fall below the food poverty line. The Human Development Index (HDI) of Tanzania was 152<sup>nd</sup> out of 180 countries in 2011 which shows that Tanzania is still one of the lowest countries in terms of human development.

**Table 1-1 Main Social Indicators in Tanzania**

Indicators	Numbers	Year
Total population	43,739,000 <sup>1</sup>	2009
Population increase rate	3.1% <sup>1</sup>	2000-2009
Population under-five years of age (%)	7,792,000 <sup>2</sup> (17.8%)	2009
Life expectancy	56 <sup>1</sup>	2009
Crude birth rate	41 <sup>1</sup>	2009
Crude death rate	11 <sup>1</sup>	2009
GNI per capita (USD)	500 <sup>1</sup>	2009
Economic growth rate	6.7% <sup>2</sup>	2006
Primary school net attendance (%)	M 71: F 75 <sup>1</sup>	2005-2009
Human Development Index	152/180 <sup>3</sup>	2011
Population under food poverty line (%)	19 <sup>4</sup>	2000/01
Population under basic need poverty line (%)	33.3 (35.7) <sup>5</sup>	2007 (2000/01)

Sources: 1. The State of the World’s Children report 2011, UNICEF 2011 [1]  
2. WHO Country Cooperation Strategy 2010-2015 [2]  
3. UNDP International Human Development Indicators, 2011 [3]  
4. Poverty and Human Development Report 2005 [4]  
5. Poverty Reduction Slow Despite Economic Growth, Sarah McGregor 2008 [5]

The population of Tanzania is growing at the high rate of 3.1%, which has resulted in a young population structure in which those under 18 years of age occupy 51.2% of the total population and those under-five years of age occupy 17.8%. In Tanzania, the main industry has been agricultural industry and 50% of GDP arises from agriculture. As the economy depends on agriculture, cattle and fishing industries, the country tends to be affected easily by climate changes and changes in global markets.

In addition to the traditional infectious diseases such as malaria, newly emerging diseases such as HIV/AIDS and other endemic diseases which affect people’s health have resulted in declining life expectancy and worsening of the human development index.

## Chapter 2 Development Policies and Plans

### 2.1 National Development Policy

#### 2.1.1 MKUKUTA

The health sector is guided by national policies such as the National Strategy for Growth and Reduction of Poverty: NSGRP (known in Kiswahiri as the MKUKUTA), which provides the global direction for achievement of the Millennium Development Goals (MDGs). MKUKUTA is a successor to the Poverty Reduction Strategic Papers: PRSP adopted in 2000. Under the PRSP initiative, the Government committed itself to giving priority status in resource allocation to PRS priority sectors, which were agriculture, basic education, primary health, water, rural roads, judiciary and HIV/AIDS. MKUKUTA also focuses on growth and governance and is a framework for all government development efforts and for mobilizing resources.

MKUKUTA II (2010-2014) was formulated as a successor plan to MKUKUTA I (2005-2009) in 2010. MKUKUTA I and II are addressing the need to become more outcome oriented by adopting three clusters of broad outcomes, namely: (i) Growth and reduction of income poverty, (ii) Improvement of quality of life and social well-being, and (iii) Good governance.

The health sector is included in Goal 3: “Improving survival, health, nutrition and well-being, especially for children, women and vulnerable groups”. Three priority areas are (i) Human Resources for Health, (ii) Fertility, maternal and neonatal health, (iii) Infant and child health and nutrition, and (iv) HIV/AIDS and TB.

**Table 2-1 Operational Targets in MKUKUTA II**

Areas of concerns	Operational Targets (by 2015)
1. Human Resource Development for Health	Appropriate number and mix of health professionals trained, deployed and retained
2. Addressing Fertility, Maternal and Neonatal Health	i. Maternal mortality ratio reduced from 454 per 100,000 births (2010) to 265 per 100,000 live births by 2015
	ii. Neonatal mortality reduced from 26 per 1,000 live births (2010) to 19 per 1,000 live births in 2010
	iii. Proportion of births attended by skilled health personnel increased from 50.6% (2010) to 80% (2015)
	iv. Total Fertility Rate slowed down from 5.4 (2010) to 5.0 by 2015
	v. Population growth reduced from 2.9% (2002) per annum to 2.7% by 2015
3. Infant and Child Health and Nutrition	i. Infant mortality rate reduced from 51 per 1000 live births (2010) to 38 per 1000 live births by 2015
	ii. Under-five mortality rate reduced from 81 per 1,000 live birth (2010) to 54 per 1,000 live births by 2015
	iii. Proportion of under-fives underweight (weight for age) reduced from 21% (2010) to 14% by 2015
	iv. Proportion of stunted under-five (height for age) reduced from 35% (2010) to 22% by 2015
	v. Prevalence of exclusive breastfeeding in children under 6 months increased from 50% (2010) to 60% in 2015
	vi. Proportion of anaemic women and children reduced (from 48.4% to 35% in women; from 71.8 % to 55% in children) by 2015
4. HIV and AIDS and TB	i. HIV/AIDS infection rate reduced
	ii. National HIV prevalence rate in 15-24 years age group reduced from 2.4% in 2010 to 1.2% by 2015
	iii. Access to ARV and food supplements for People Living with HIV/AIDS increased
	iv. Percentage and number of orphaned and vulnerable children aged 0-17 whose household receives free basic external support increased from 586,170 (2009) to 1,318,187 by 2015

Source: National Strategy for Growth and Reduction of Poverty II: NSGRP [6]

### **2.1.2 General Budget Support: GBS and Monitoring System**

General Budget Support (GBS) was introduced in 2001 to strengthen GOT in the utilization of resource management systems; this has particularly strong reference to the budget process and systems. Tanzania's general budget has a series of monitoring processes to manage and supervise the expenditure, such as the Public Expenditure Review (PER) after annual estimation by each ministry under the three year Mid-Term Expenditure Framework (MTEF).

#### **(1) Mid-Term Expenditure Framework: MTEF**

MTEF is a prioritized three-year performance budget to implement the strategic plan. MTEF provides the "linking framework" that allows expenditure to be driven by policy priorities and is disciplined by budget realities. Based on the available resources, MTEF establishes the cost of implementing activities that will achieve the targets and meet set objectives.

#### **(2) Public Expenditure Review: PER**

Public Expenditure Reviews (PERs) are core diagnostic studies prepared to help countries establish effective and transparent mechanisms to allocate and use available public resources in a way that promotes economic growth and helps in reducing poverty. The PER process is intended to enhance efficiency in public expenditure management. The process involves evaluation of performance against a budget framework and output targets.

### **2.1.3 MKUKUTA and Strategic Budget Allocation System**

In order to implement the MKUKUTA and accord priority objectives in resource allocation, the Government introduced a budgeting system called Strategic Budget Allocation System: SBAS. SBAS facilitates resource allocation according to priorities, including preparation of budget ceilings by the Plan and Budget Guidelines Committee.

### **2.1.4 Local Government Reform and Decentralization by Devolution: D-by-D**

Since 1994 Tanzania has embarked on a Local Government Reform Programme (LGRP). The aim of the reforms is to establish decentralization by devolution (D-by-D). This implies that Local Government Authorities (LGAs) take full responsibility for planning, budgeting and management of government services, including health, education, and water supply.

## **2.2 Health Sector Development Plans**

### **2.2.1 Health Sector Policy**

The MOHSW has revised the 1990 National Health Policy and the revised Health Policy 2007 has been approved. The vision, mission and objectives of the health sector are stipulated in the policy.

### **2.2.2 Health Sector Strategic Plan III 2009-2015: HSSP III**

The Health Sector Strategic Plan has a planning cycle of 5 years; however, year 2015 is the target year for the achievement of the Millennium Development Goals (MDGs), so the HSSP III is in accord with the MDG target year. This strategic plan, therefore, is planning years from 2009 to 2015 and it aims to contribute to Tanzania's MDG targets to reduce child and maternal mortality and to control important infectious diseases.

HSSP III has eleven strategies focused on specific topics in the health service delivery related to diseases and management. The cross-cutting issues elaborate on the approach towards quality, equity, gender and governance.

**Table 2-2 HSSP III Strategies Overview**

Strategies	The contents	Budgets (Total of 6 years) US\$
1. Accessibility to District Health Services will be improved	<ul style="list-style-type: none"> <li>• Implementation of the Primary Health Care Strengthening Programme (MMAM)<sup>6</sup></li> <li>• All facilities will provide a complete package of essential health interventions in accordance with the guidelines for their level.</li> <li>• Strengthen community involvement</li> <li>• Strengthen the referral system in the district (horizontal and vertical)</li> <li>• The Tanzania Quality Improvement Framework (TQIF) provides guidance for the introduction of a quality assurance system</li> <li>• Supervision by Regional Health Management Team (RHMT) and Regional Hospital staff will contribute to quality improvement</li> <li>• Performance based system like pay-for-performance (P4P) will enhance motivation and productivity of health workers</li> </ul>	4,872,773,058
2. Hospital Referral Services will be more accessible to patients who need advanced care through an adequate referral system.	<ul style="list-style-type: none"> <li>• The quality of care will improve by implementation of the TQIF</li> <li>• Hospitals will have a quality assurance unit to promote quality.</li> <li>• The hospital reform programme will improve financial management and human resource management.</li> <li>• Hospitals will develop strategic plans and capital investment plans.</li> <li>• Hospital boards will ensure community participation in management.</li> </ul>	1,430,484,339
3. The central level support by headquarters' departments and agencies will be streamlined	<ul style="list-style-type: none"> <li>• More functions will be delegated to operational level (s).</li> <li>• Further integration of programmes will lead to more coherence in the provision of health services.</li> <li>• Headquarters will introduce an effective system for annual action planning</li> <li>• Strengthening of RHMTs will be important for technical supervision</li> <li>• Zonal Resource Centres will provide training and technical support to training institutions.</li> </ul>	---
4. Increasing numbers and improvement of the quality of human resources for health will be achieved	<ul style="list-style-type: none"> <li>• HRH planning and information system will be strengthened.</li> <li>• Recruitment and retention of staff will be institutionalized in close collaboration with LGAs</li> <li>• The introduction of performance based systems will improve motivation and productivity of health staff.</li> <li>• Continuous Professional Development (CPD) is necessary to keep health workers updated.</li> <li>• Training institutions will increase their production by higher numbers of graduates and will improve training quality by updating the curricula</li> </ul>	457,057,846
5. Health care financing will be mobilized to realize the ambitions of the MOHSW.	<ul style="list-style-type: none"> <li>• The Ministry aims to increase the health budget to 15% of the government budget.</li> <li>• Increase the funding through the Health Basket Fund</li> <li>• The Ministry will develop strategies to increase complementary financing through the Community Health Fund and the National Health Insurance Fund.</li> <li>• A regulatory body for health insurances will be created</li> <li>• Increased collaboration with the private sector will provide opportunities for investments in health.</li> </ul>	5,601,090

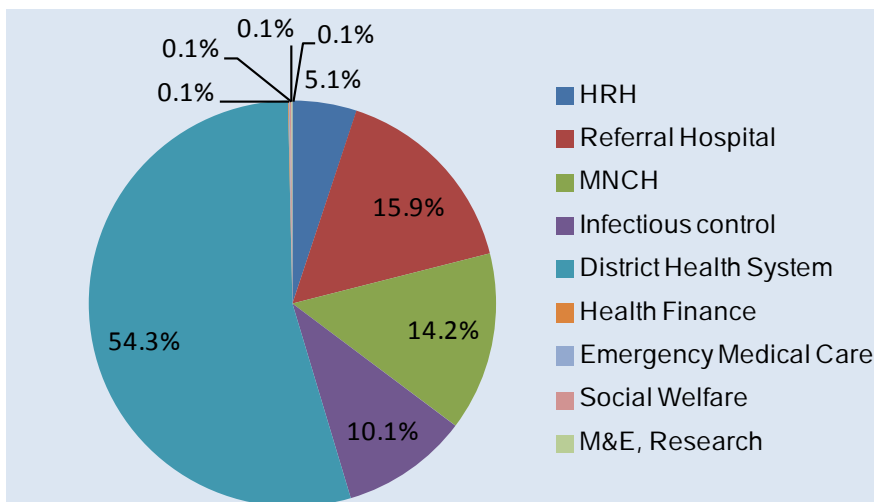
<sup>6</sup> Primary Health Service Development Programme (PHSD) 2007-2017 is known as MMAM (Mpango sa Maendeleo wa Afya ya Mishingi) which is a long term Plan for strengthening PHC services.



Strategies	The contents	Budgets (Total of 6 years) US\$
6. Public Private Partnership is important for achieving the goals of the health sector.	<ul style="list-style-type: none"> <li>PPP forums will be installed at national, regional and district level.</li> <li>The service agreements will be used in all LGAs to contract private providers for service delivery</li> <li>Private training institutions will be increasingly involved in production of HRH.</li> </ul>	---
7. The One Plan for Maternal, Newborn and Child Health (MNCH) will be implemented	<ul style="list-style-type: none"> <li>Priority reproductive and MNCH interventions will be implemented</li> <li>Key maternal and child health interventions with a focus on youth, family planning and nutritional services will be implemented</li> <li>MNCH will improve through general measures (number of PHC facilities, increased number of competent staff and improving equipment and supplies in health facilities)</li> <li>Improve referral system to increase access to emergency obstetric care</li> <li>Communities will be more involved in MNCH in order to improve reproductive health practices.</li> </ul>	1,277,704,166
8. Disease control programmes will be improved by the general improvement of health facilities. The diagnostic capacity in laboratories and provision of equipment and supplies will improve.	<ul style="list-style-type: none"> <li>The HIV/AIDS programme will continue to increase access to ARV treatment for PMTCT, and Post Exposure Prophylaxis. Prevention and Voluntary Counselling and Testing will be stimulated, as well as treatment of STIs. All hospitals will guarantee safe blood transfusion.</li> <li>In the malaria programme universal access to evidence based malaria interventions will be scaled up including effective diagnosis and treatment, LLINs and indoor residual spraying.</li> <li>The TB programme will continue the Stop TB strategy, while vigilance for Multi Drug Resistant TB will be high. The Leprosy eradication strategy and disability prevention programme will be implemented in all districts.</li> <li>Targeting neglected diseases will be achieved through training of staff and provision of medicines to reduce unnecessary suffering and death.</li> <li>NCDs will become more important to people's health. More attention for healthier lifestyles and better treatment will be stimulated.</li> </ul>	Malaria control 506,583,332 HIV/AIDS control 310,734,950 TB/Leprosy 41,400,002 NCD control 47,671,250 Neglected Diseases 1,915,584 <hr/> Total 908,305,118
9. Emergency Preparedness and Response will be strengthened	<ul style="list-style-type: none"> <li>Capacity building at all levels is planned to prevent or deal with emergencies.</li> <li>Quick mobilization of resources will be realized when needed.</li> </ul>	6,548,464
10. The capacity to provide social welfare and protection services must be built in all districts	<ul style="list-style-type: none"> <li>The regulatory framework will be developed and community based programmes will be initiated or strengthened; shifting from a charity approach to a rights based approach.</li> </ul>	11,920,916
11. A comprehensive M&E and Research policy and strategy will be developed	<ul style="list-style-type: none"> <li>Integration of the MOHSW monitoring systems with the PMO-RALG and MKUKUTA system will be pursued.</li> <li>The HMIS will be revisited. At national level there will be data warehouses where information from several sources is merged and used for further analysis.</li> <li>Health systems research and other research will be stimulated.</li> </ul>	7,177,755

Source: Health Sector Strategic Plan III 2009-2015, MOHSW 2009 [7]

The proportion of budgets (cumulative of 6 years) by strategies identified in HSSP III is shown in the figure 2-1. The biggest proportion is for "District Health System and facility development" which occupies 54% of total budgets. Followed by referral system development (16 %), MNCH (14%), and infectious disease control (10%).



Source: Health Sector Strategic Plan III [7]

Figure 2-1 Proportion of Budgets by Strategies Identified in HSSP III (FY9/10-FY14/15)

### 2.2.3 Primary Health Care Development Programme: MMAM 2007-2017

In 2007, the MOHSW developed the Primary Health Care Service Development Programme (PHCSDP). This programme is better known by the Kiswahili name of MMAM. The details of the plan are discussed in Chapter 4, 4-1 Primary Health Care Service.

### 2.2.4 Human Resource for Health Strategic Plan 2008-2013

The Human Resource for Health Strategic Plan 2008-2013 is a mid-term plan for human resource development. The details of this plan are discussed in Chapter 5, 5-1 Human Resources for Health.

### 2.2.5 Health Sector Reform

Responding to the need to provide essential health services to all, the health sector reform started its discussion in 1994/95. The health sector reform linking with local government reform and Decentralization by Devolution (D-by-D) aims to transfer health management function to Local Government Authorities from the central Health Ministry. In 1998, the GOT agreed to enter a Sector Wide Approaches (SWAs) programme in health to strengthen the holistic approach in health planning. In 2000, the Health Basket Fund was introduced; as a result, local government authorities strengthened the capacity to formulate needs-based health planning and budgeting, implementation, and monitoring/evaluating their performance. The roles and responsibilities of central, provincial and council level health offices should be stipulated better. Moreover, the managerial capacity of these managers at each level should be strengthened [8].

Through the health sector reform, at the council level, the council health management team (CHMT) has an important role to play in planning and implementation, including provision of services. They are responsible for primary level health facilities. At the regional level, the regional health management team (RHMT) is supervising CHMT and Regional hospitals, however, RHMTs are not given a budget to implement their responsibilities and their function is becoming weak. This is becoming an issue for the Central Health Ministry.

As a result of sector reform, public private partnerships have been enforced. In the private sector, faith based organizations and Non-Governmental Organizations are involved in health service provision as a part of public services. Also, through cost sharing with the community, community based health insurance, drug revolving funds, and universal coverage of health insurance steps, the alternative modes of getting health funds have been strengthened to aim at financial independency.

## Chapter 3 Health Status of the People

### 3.1 Overview

In Tanzania, the recent main causes of death are still due to communicable diseases which account for 65% of the total number of deaths [9]. Therefore, it can be said that it is still before the epidemiological transition showing a communicable diseases dominated disease pattern. Table 3-1 shows some main indicators which are selected from MDG 4, 5 and 6 to show the health status of the country.

**Table 3-1 MDG 4, 5, 6 Assessment at a Glance**

MDG	Indicators	1990 <sup>1</sup>	2000 <sup>2</sup>	2008 <sup>3</sup>	2010 <sup>4</sup>	Targets In 2015	Perspectives to achieve the targets
4	Under-five mortality rate (per 1,000 live births)	191	153	112	81	64	High
	Infant mortality rate (per 1,000 live births)	115	99	68	51	38	High
	Proportion of 1 year-old children immunized against measles	81.2	80	86	85	95	Medium
5	Maternal Mortality Ratio (per 100,000 live births)	529	-	578	454	133	Low
	Births attended by skilled health personnel (%)	43.9	35.8	63	50.1	90	Low
6	HIV prevalence (%), 15-25 years	6	9.4	5.7 <sup>5</sup>	-	<6	High
	Malaria incidence rate (cases per 100,000 pop.)	-	31,603 (2003)	27,030 (2006)	-	18,042	High
	TB incidence rate (cases per 100,000 pop) <sup>6</sup>	226	236	190	177	107	High

Sources: 1~3. Millennium Development Goals Report; Mid-Way Evaluation: 2000-2008 [10]

4. Tanzania Demographic Health Survey (TDHS), 2010 [11]

5. Tanzania County Report on the Millennium Development Goals 2010 [12]

6. Global Health Observatory Data Repository, Country Statistics Tanzania 2011 [13]

In the last 10 years, infant and under-five mortality rates have been on the decline and it is expected that the MDG targets will be achieved by the year 2015 if the pace of decline in mortality levels is sustained at this rate. According to the Tanzania Demographic and Health Survey 2010 (TDHS 2010) [11], the efforts to expand the coverage of immunization and controlling malaria prevalence contributed greatly to the decline of young children's mortality. On the other hand, maternal mortality remains high in Tanzania with the ratio of 454 per 100,000 live births in 2010. It would be difficult to achieve the target of 133 per 100,000 live births in 2015 with this pace of decline. HIV prevalence has been steadily declining and it has already achieved the target of less than 6% by 2015. Malaria prevalence has also been showing a steady decline due to the vigorous efforts of the government to combat Malaria. It has a positive perspective to achieve the target by the year 2015. Though TB incidence increased between 1990 and 2000, it has been showing a declining trend since and is expected to achieve its target by the year 2015.

### 3.2 Maternal and Child Health

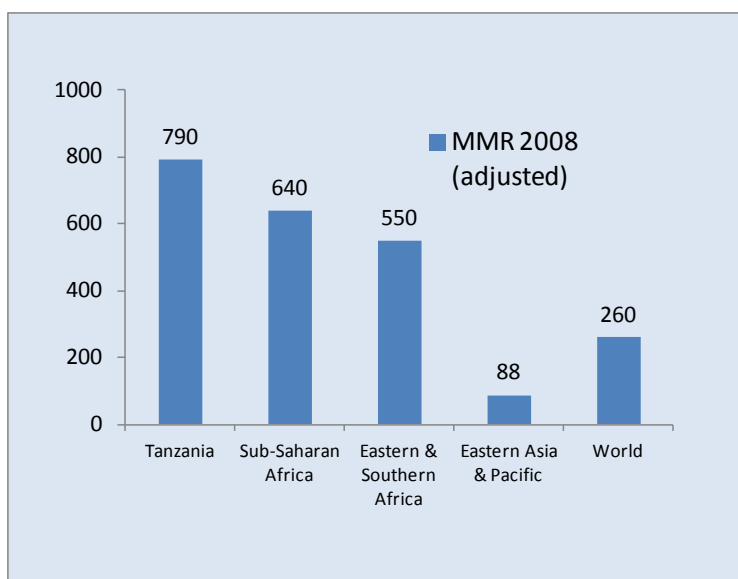
#### 3.2.1 Mothers' Health

Maternal mortality remains high in the country. For every 1000 live births in Tanzania, about four to five women died of pregnancy-related causes according to the TDHS 2010. Also TDHS 2010 shows that

maternal deaths occupy 17% of the total number of women’s deaths aged between 15 and 49, which is almost no difference from the figure of 18% in the same survey in 2004-05.

According to the UNICEF Country Profile 2011 [14], the causes of maternal deaths are haemorrhage (34%), hypertension (19%), indirect causes (17%), other direct causes (11%), abortion (9%), sepsis (9%), embolism (1%). This means that preventable causes of maternal deaths (if mothers had had supervised deliveries under medical attention) such as haemorrhage, pregnancy induced hypertension and sepsis account for more than 60% of maternal deaths. Maternal deaths that occurred outside of health facilities were not accounted for nor investigated properly, therefore, detailed information of the circumstances, such as where, when and how those deaths happened are not available and it makes it difficult to formulate a proper strategy to combat maternal deaths.

The following figure shows the comparison of Tanzania’s maternal mortality with the average of Sub-Saharan African regions, Eastern Asia and the world average. It shows that Tanzania has a higher MMR than the rest of the world.

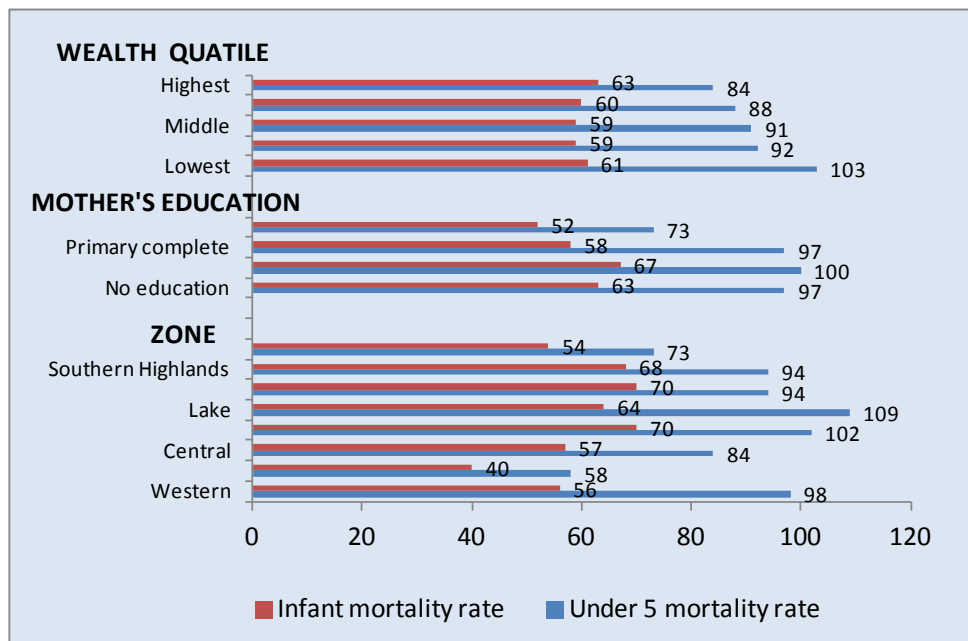


Source: The State of the World’s Children Report 2011, UNICEF [1]

**Figure 3-1 Comparison of Maternal Mortality Ratio by Regions**

### 3.2.2 Children’s Health

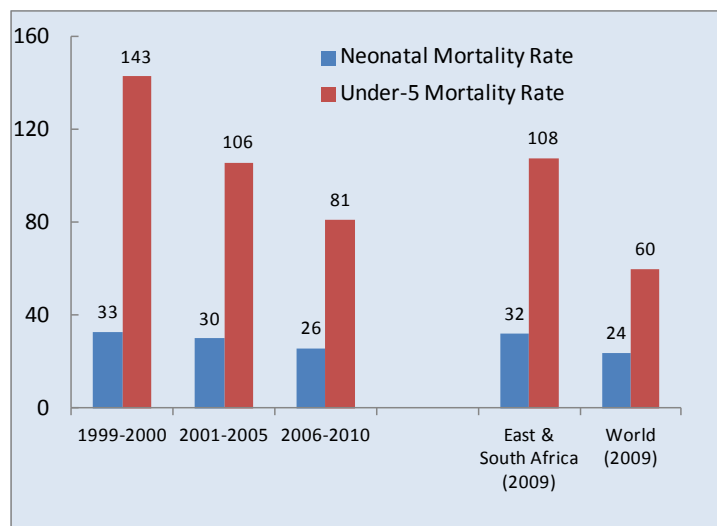
Figure 3-2 shows the under-five mortality and infant mortality rates by area, by mothers’ educational level and by income according to TDHS 2010. Under-five mortality rates are lowest in the Northern zone with the rate of 58 per 1000 live births and the highest is 109 and 102 per 1000 live births in the Lake and Southern Highlands zones respectively. A similar pattern is observed for the infant mortality rate. The mother’s level of education is positively associated with the child’s survival. In particular the trend is observed more clearly with the under-five mortality rate. The association between child mortality and wealth quintile is not so clear, though under-five mortality declines gradually with increasing wealth.



Source: Tanzania Demographic and Health Survey 2010 [11]

Figure 3-2 Socio-economic Differentials in Infant and Under-five Mortality Rates

According to the UNICEF Country Profile 2010 [14], the largest proportion of the under-five deaths was neonatal deaths, which accounted for 34% of the under-five deaths. Within neonatal deaths, the main causes of death in 2008 were: asphyxia (29%), preterm delivery (28%), infection (27%), congenital problems (18%), others (5%), diarrhoea (2%), tetanus (1%). Figure 3-3 shows the trend of the Tanzanian under-five mortality and neonatal mortality rates from 1999 to 2010 which is compared to the Eastern and Southern African region and the world average. The neonatal mortality rate is declining at a slower pace than the under-five mortality rate but both rates are getting closer to the world average.



Source: Tanzania Demographic and Health Survey 2010 [11]  
The State of the World's Children Report 2011, UNICEF [1]

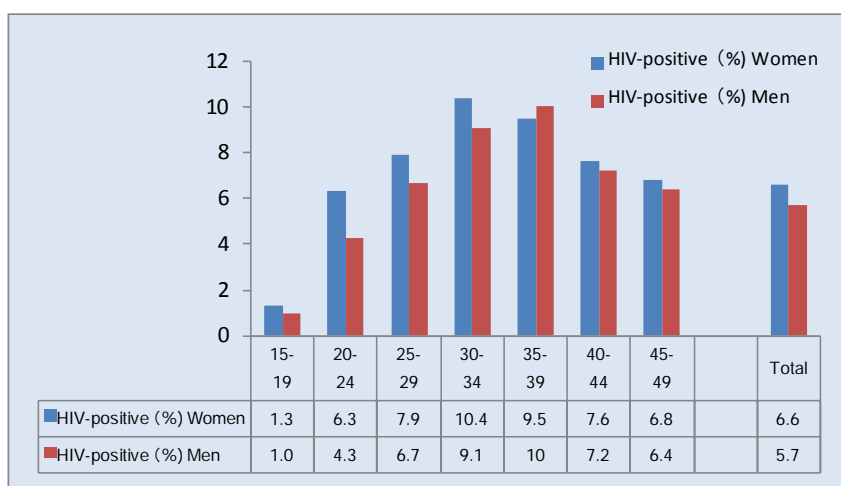
Figure 3-3 Comparison of Neonatal and Under-five Mortality Rates

### 3.3 Situation of Infectious Diseases

#### 3.3.1 HIV/AIDS

##### (1) Overall Trends

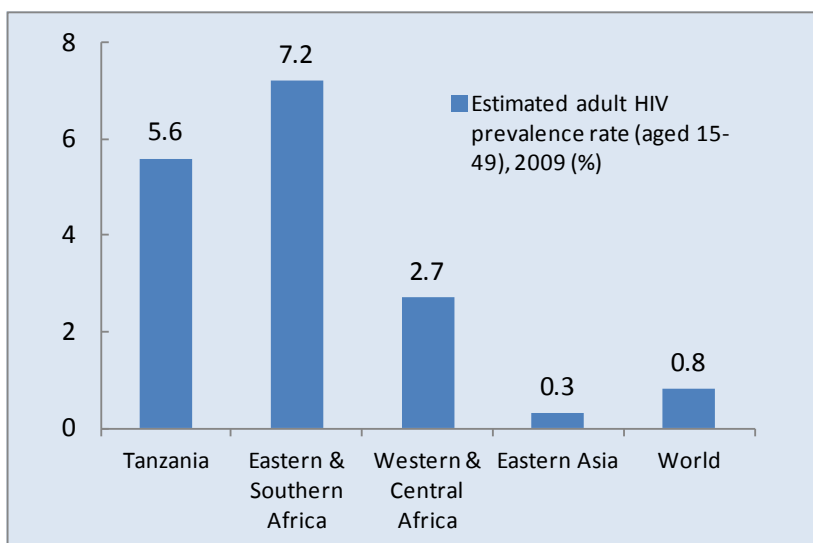
Comparing the overall HIV prevalence rates among adults aged between 15 and 49 from the HIV/AIDS and Malaria Indicator Survey 2003-04 [15] and the same data from the 2007-08 survey [16], there has been a slight decrease from 7% in 2003-04 to 5.7% in 2007-08, which already reached the MDG target of 6% in 2015. HIV/AIDS prevalence by age and sex shows that the prevalence of HIV is higher among women than men in Tanzania. Women show the highest prevalence in the age group between 30 and 34 but men show the highest prevalence between 35 and 39 years old.



Source: Tanzania HIV/AIDS and Malaria Indicator Survey 2007-2008 Macro International Inc. November 2008 [16]

**Figure 3-4 HIV Prevalence by Age Group and Sex**

Figure 3-5 shows the comparison of HIV prevalence by areas in 2009.



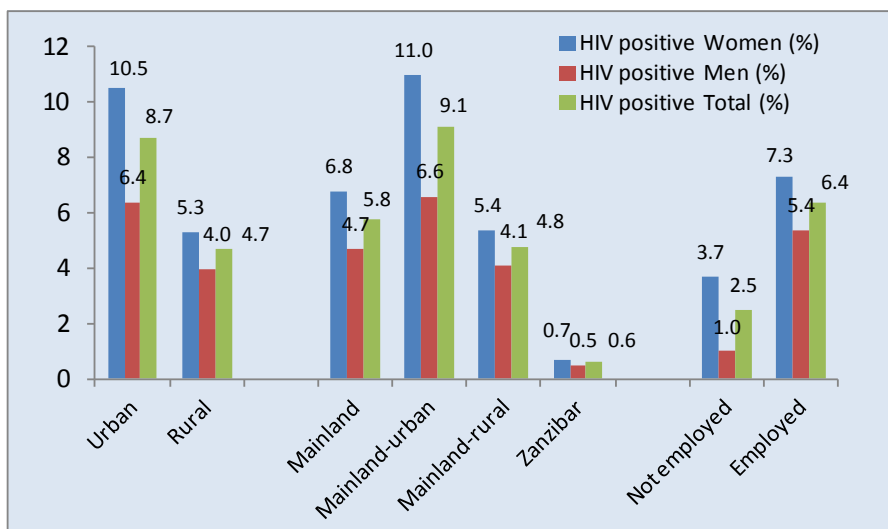
Source: The State of the World's Children Report 2011, UNICEF [1]

**Figure 3-5 Estimated Adult HIV Prevalence Rate (aged15-49), 2009**

The Tanzanian age group between 15 and 49 had a slightly lower HIV prevalence rate than Northern and Southern Africa, but significantly higher than Eastern Asia and the world average in 2009.

## (2) HIV Prevalence by Socio-economic Characteristics

Figure 3-6 shows the variation in HIV prevalence by socio-economic and geographic characteristics. The HIV prevalence is highest among urban women; Zanzibar residents show the lowest prevalence for both sexes. The prevalence of HIV is higher among those who are employed (6%) than those who are not employed (3%). In particular, men who are employed show 5 times higher prevalence than men who are not employed in 2008.



Source: Tanzania HIV/AIDS and Malaria Indicator Survey 2007-2008, Macro International Inc. November 2008 [16]

**Figure 3-6 HIV Prevalence by Socio-economic Characteristics**

## (3) HIV/AIDS Knowledge, Transmission and Prevention Methods

According to TDHS 2010, almost 100% of respondents aged between 15 and 49 both men and women said that they had heard of AIDS and around 70% of them knew correctly the how HIV/AIDS could be avoided. 48% of women and 46% of men had comprehensive knowledge of AIDS. 72% of women and 61% of men are aware about the transmission of HIV from mothers to children, and the number has been increasing significantly from the data in the 2004-05 TDHS (29% of women and 30% of men).

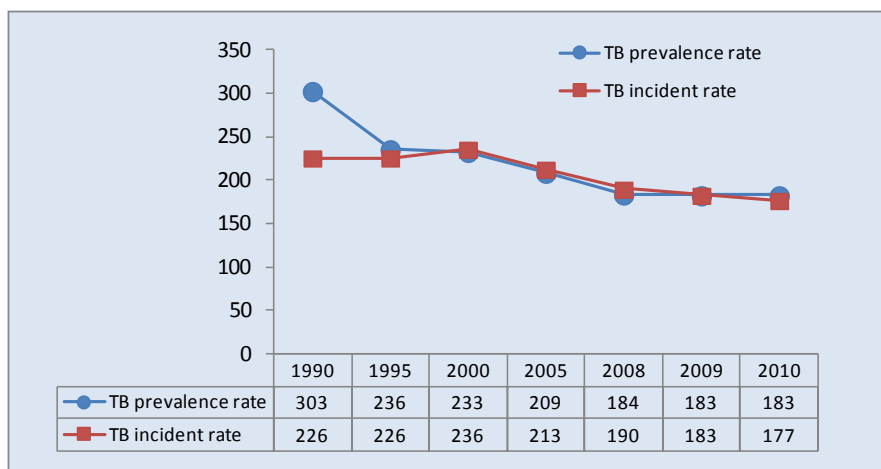
Among those who had multiple sexual partners in the year prior to the survey, 27% of women and 24% of men used a condom during their last sexual intercourse. It illustrates that although people have the appropriate knowledge regarding the prevention of HIV/AIDS, there is a gap between their knowledge and their practice in many sexually active men and women.

### 3.3.2 Tuberculosis (TB)

Tuberculosis control in Tanzania has a history of more than 25 years. As a result, both TB incidence and prevalence rates have been gradually declining over more than 20 years. However, TB is occurring among 40



to 50% of AIDS patients, so that TB cases, among those who are HIV positive, have been increasing since 2006 in Tanzania. This is expected to be a continuing trend.



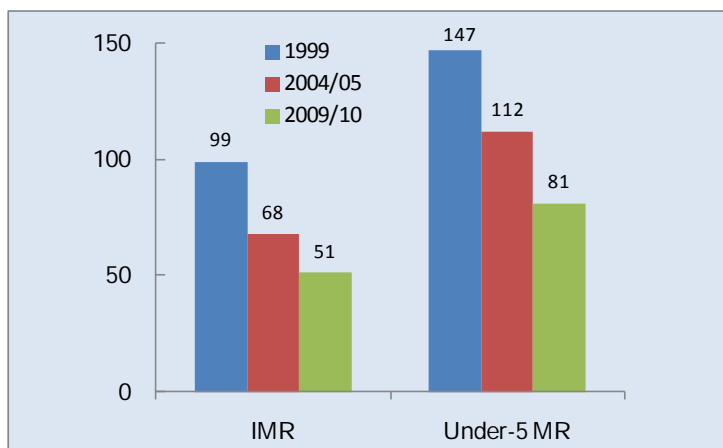
\*TB prevalence and incidence including HIV positive cases  
Source: WHO Report 2011: Global Tuberculosis Control, Table A3.1 Estimates of the burden of diseases caused by TB, 1990-2010 [17]

**Figure 3-7 Estimated TB Incidence and Prevalence Rates 1990-2001**

### 3.3.3 Malaria

In Tanzania, *Plasmodium Falciparum* is the most common parasite of the four plasmodia parasites which cause malaria. It causes severe malaria and is fatal if not recognized promptly and properly managed. Malaria is the single most significant disease in Tanzania affecting those who have not yet developed sufficient immunity to malaria through previous exposure - such as children under 5 years of age, followed by pregnant women because of their reduced natural immunity [11]. Malaria is a major cause of pregnancy loss, low birth weight and neonatal mortality.

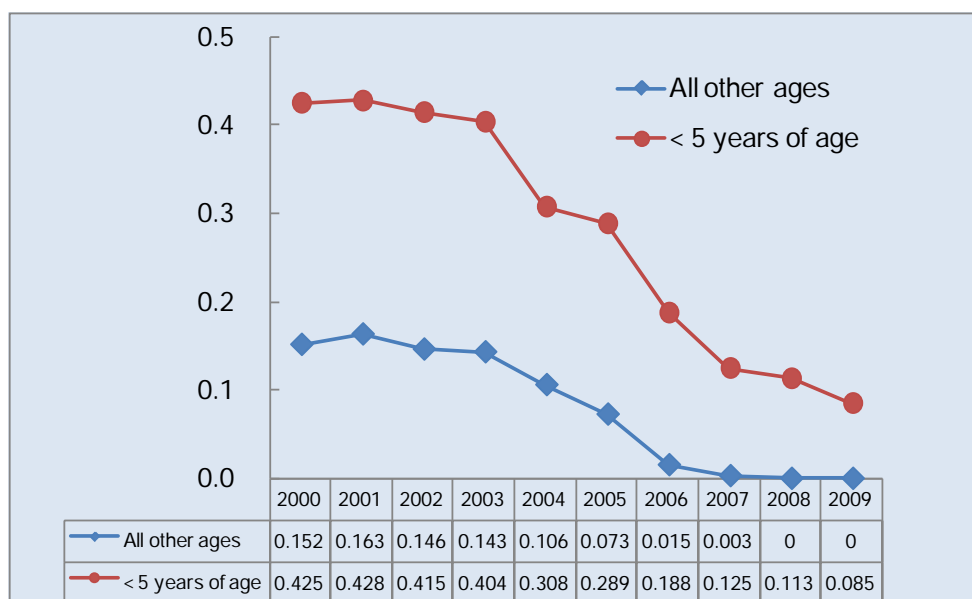
There is increasing evidence in recent years that undoubtedly the scale-up of proven interventions is making an impact. Figure 3-8 demonstrates a significant decline in both infant and under-five mortality over the five year period from 2004/05 to 2009/10. Studies carried out in the Demographic Surveillance Sites have observed that malaria accounted for about 36% of all deaths in Tanzania in children under-five years of age in 2005 [19], therefore reducing deaths from malaria is a huge contributor to reducing child mortality.. However, according to the UNICEF country report 2010, malaria still occupies 16% of the total number of deaths of children under-five years of age [14].



Source: Recent Developments and Achievements in Malaria Control in Tanzania [20]

**Figure 3-8 Trends of Infant and Under-five Mortality in 1999, 2004/05 and 2009/10**

Figure 3-9 shows the rate of total confirmed malaria cases in outpatient consultations in all ages and in children under-five years of age. Figure 3-9 shows the significant decline after 2004 in both age groups, however, the proportion of confirmed malaria cases in the total outpatient consultations among those under-five years of age is higher than the same rates in all other ages combined. 17.7% of total malaria prevalence was in children under-five years according to the Tanzania HIV/AIDS and Malaria Indicator Survey 2007-2008.



Note: Reporting completeness of outpatient health facilities in 2009: 97.2%

Source: World Malaria Report 2010, WHO 2010 [18]

**Figure 3-9 Rate of Confirmed Malaria Cases in Total Outpatient Consultations from 2000-2009**

It is difficult to find comparable data of malaria prevalence due to so many different patterns of trends in different countries. However, if we compare the UNICEF index such as the percentage of households owning at least 1 ITN, the percentage of children under-five years of age sleeping under ITNs, and the percentage of children under-five years of age with fever receiving anti-malaria drugs, Tanzania showed 39%, 26% and 57% respectively in 2009. Comparing the average of Eastern and Southern Africa, which was

41%, 29% and 31% respectively, Tanzania has a higher proportion of under-fives with fever receiving anti-malaria drugs [1].

### **3.3.4 Neglected Tropical Diseases**

In Tanzania, schistosomiasis infection is present in all regions, the prevalence ranges from 13% to 88% around Lake Victoria according to the WHO document [2]. There are high prevalence rates up to 100% in certain ecological settings such as Kagera, Mwanza and Tabola. The 2004 results indicated that lymphatic filariasis is endemic in all districts of the country. Rapid Epidemiological Mapping of onchocerciasis, conducted in 1999 and refined in 2004, indicated that approximately 4 million people in Tanzania are at risk. The prevalence of onchocerciasis was as high as 64% in certain focal endemic areas including Mbeya, Iringa and Morogoro. On the other hand, leprosy control has been successfully achieving the target of less than 1 case out of 10 million of the population at the national level. Now the country is trying to achieve the same target at the province level.

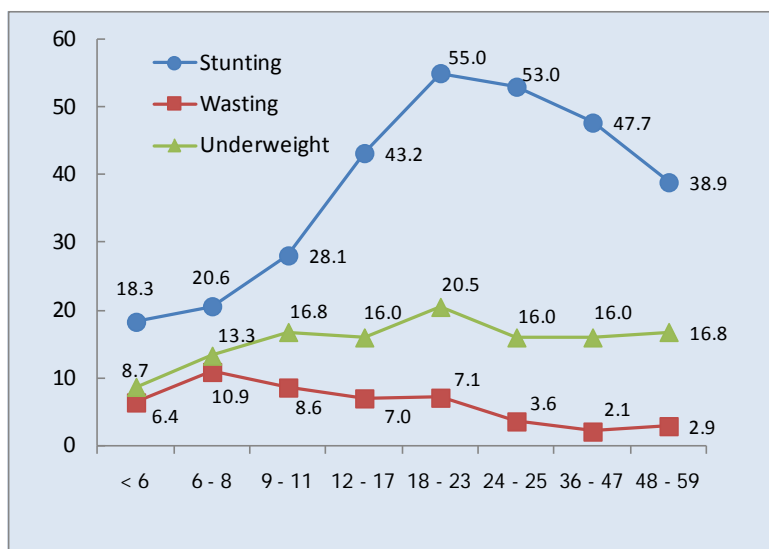
## **3.4 Nutrition**

### **3.4.1 Child Nutritional Status**

The nutritional status among children under the age of 5 is a major health problem in Tanzania. Figure 3-10 shows that stunting is a major problem caused by chronic malnourishment over a long period of time. Nationally 42% of children under 5 years old are stunted ( $< -2SD$ ) and 17% are severely stunted ( $< -3SD$ ). By age group, stunting is highest (55%) in children aged 18-23 months and lowest (18%) in children under 6 months old. Overall, 5% of children are wasted and 1% is severely wasted. By age group, wasting is highest (11%) in children aged 6-8 months and lowest (2%) in children aged 36-47 months. 16% of children under 5 years old are underweight and 4% are severely underweight. The number of those underweight is highest among children 18 to 23 months old and lowest (9%) among those under 6 months. However the trend in the nutritional status of children has been improving over the years. 43% of children under age 5 were stunted in 1996 and the figure dropped to 35% in 2010<sup>7</sup>. In the same period, wasting declined from 7% to 4%, and those underweight declined from 31% to 21%.

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<sup>7</sup> For the purpose of comparison to assess trends, the data for 2010 were recalculated using the AHO reference population. These data will not be comparable to data in figure 3-10.



Source: Tanzania Demographic and Health Survey 2010 [11]

Figure 3-10 Nutritional Status of Children by Age (1-59 months) (n=7,491)

According to the UNICEF in “The State of the World’s Children Report 2010”, the problem of stunting in the country is the same degree as the average in Eastern and Southern African countries, however, the rate is the second highest following the average of Southern Asian countries.

### 3.4.2 Anaemia Prevalence in Children

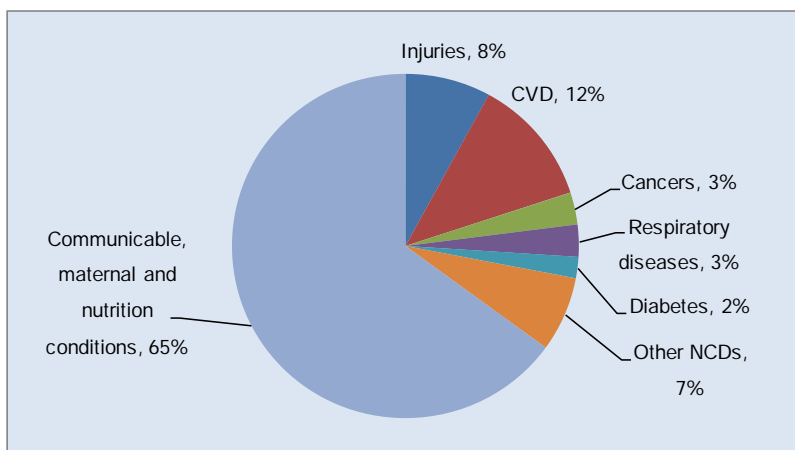
The most common cause of anaemia is resulting from inadequate dietary intake of nutrients such as iron, folate, vitamin B12 and others necessary for the synthesis of haemoglobin. Anaemia also results from sickle cell disease, malaria, or parasitic infections. According to the TDHS 2010, 59% of sampled children aged 6-59 months have any anaemia (a haemoglobin level under 11.0 g/dl), 27% have mild anaemia (10.0-10.9 g/dl), 29% have moderate (7.0-9.9 g/dl), and 2% have severe anaemia (<7.0 g/dl).

### 3.4.3 Anaemia Prevalence in Women

According to TDHS 2010, 40% of women age 15-49 are anaemic with 1% being severely anaemic. When compared with the 2004-05 TDHS, anaemia prevalence has declined by 17 percentage points. Pregnant women are more likely to be anaemic (53%) than women who are breastfeeding and women who are neither pregnant nor breastfeeding (39%). The disparity between the mainland and Zanzibar is large (40 and 59% respectively). The educational level of women and smoking did not show any association with anaemic status.

## 3.5 Noncommunicable Diseases (NCDs)

Figure 3-11 shows the proportion of deaths by causes in 2010. NCD accounted for 27% of total deaths. The highest cause in NCD was Cardiovascular Disease (12%).



Source: World Health Organization – NCD Country Profiles, 2011 [9]

**Figure 3-11 Proportional Mortality (% of total deaths, all ages)**

Although circumstantial evidence indicates that the incidence of NCDs in Tanzania is on the rise, there is no data on the risk factors. According to the small-scale study on risk factors for NCDs among semi-rural adults in Kilolo district, Iringa Province in 2007, the overall prevalence of hypertension was 36%. Older age was significantly associated with smoking, being hypertensive and having high cholesterol levels. Education was found to influence hypertension and alcohol consumption with those having had secondary school education and above being more hypertensive while those with lower than class seven education consuming more alcohol [21].

According to TDHS 2012, 21% of women are overweight or obese (BMI 25kg/m<sup>2</sup> or above): 15% are overweight (BMI 25-29 kg/m<sup>2</sup>) and 6% are obese (BMI 30kg/m<sup>2</sup> or above). The proportion of women who are overweight or obese is 4 percentage points higher than in the 2004-05 TDHS. On the other hand, under-nutrition (BMI<18.5 kg/m<sup>2</sup>) increased from 10% in 2004-05 to 11% in 2009-10.

### 3.6 Summary of the Health Situation in Tanzania

Under-five mortality rates and infant mortality rates (IMR) have significantly declined in Tanzania between 1990 and 2010. Under-five mortality rates decreased from 191 to 81 per 1000 live births between 1990 and 2010 and IMR decreased from 115 to 51 per 1000 live births in the same period. The neonatal mortality has not changed over the past decade though there was a small decline from 33 (1999-2000) to 26 (2006-2010) per 1000 live births. Although there were modestly reduced rates of child malnutrition, the prevalence of stunting among children with the rate of 42% is still high.

Maternal mortality is unchanged and continues to be very high. 454 maternal deaths per 100,000 live births estimated in TDHS 2010 is three times higher than the world average. HIV/AIDS, malaria and TB are on declining trends due to vigorous disease specific control programmes with support from various donors in the past few decades. But the prevalence of those diseases is much higher than the world average and more funds are needed to continue more effective preventions and treatments in each control programme. The

Global Fund eligibility list for 2010 funding channels shows that Tanzania has the second highest score (32) for priority funding following Mozambique (34) and Zambia (34) out of 123 countries in the world.

In Tanzania, communicable disease, maternal, perinatal and nutritional condition related deaths accounted for 65% of total deaths [9]. Meanwhile, noncommunicable diseases such as cardiovascular diseases and diabetes are on the rise, thus studies on the prevalence of risk factors for NCDs are urgently needed for the planning of interventions for NCD control in the country.

Neglected tropical diseases, shistosomiasis and onchocerciasis are prevalent all over the country and endemic in some regions. The impacts of these diseases are considerable not only in terms of number of deaths but also in terms of the burden of disease to the Tanzanian people.

## Chapter 4 Health Services

Reviewing the national health policy framework, plans and strategies (Chapter 2) and the situation of people's health (Chapter 3), a significant constraint/problem in the health sector in Tanzania is identified. The weakest function of the health sector in Tanzania is the delivery of health services, especially at primary level health services, in its accessibility and quality which leads to persistent severe health problems. Also implementation of each disease control programme constrains to some degree the delivery of routine health services due to scarce human resources at peripheral facilities. Children's nutritional problems are not only a single sector's responsibility but it is a cross-cutting issue over several ministries and sectors. Therefore, the coordination and cooperation among related stakeholders is the key to these issues.

Chapter 4 will focus on the delivery of primary level health service function and identify the weakness and constraints which cause low performance of the function. Also, each vertical programme including maternal, newborn and child health, HIV/AIDS control, malaria control and nutrition programmes are analysed by purpose, organizational structure, inputs and outputs.

### 4.1 Primary Health Care (PHC) Service

#### 4.1.1 PHC Service Delivery Facilities

The situation of primary level health facilities is described in the "Primary Health Service Development Programme in 2007" as follows:

**Table 4-1 PHS Delivery Facilities**

Level of local authority	Number of local authorities (2007)	Level of facility	Number of facilities (2007)
District	113	District hospital	95 (80% of districts have one district hospital)
Ward	One district has 12-20 wards Total number of wards: 2555	Health Centre	481 (18.8% of wards have one Health Centre)
Village	One ward has 5-7 villages. Total number of villages 10,342	Dispensary	4,679 (45% of villages have one Dispensary)

Source: Primary Health Service Development Programme (PHSDP) 2007-2017, MOHSW 2007 [22]

The number of health centres, which is the main function of delivering PHC services, cover only 18.8% of the total number of wards. It means that one district has only 4 health centres on average and one health centre covers 96,700 people. This simple calculation tells us that primary level health facilities are in significant shortage considering the aim of the universal coverage of service delivery at this level.

#### 4.1.2 Primary Health Service Development Programme: PHSDP 2007-2017

The importance of strengthening PHC services is well recognized in Tanzania. The ministry formulated the "Primary Health Service Development Programme: PHSDP (2007-2017)" in 2007. PHSDP aims to improve access to better quality primary health services and focuses on the following specific areas: 1. Infrastructure development, 2. Human Resources for Health, 3. Equipment, Pharmaceuticals & Medical Supplies, 4. Referral System, 5. Financial Resource Allocation. The PHSDP has set a new health policy to direct

establishment of a dispensary in every village, a health centre in each ward and a district hospital in each district. In view of this, the shortfall is 5,162 dispensaries, 2,074 health centres and 8 district hospitals.

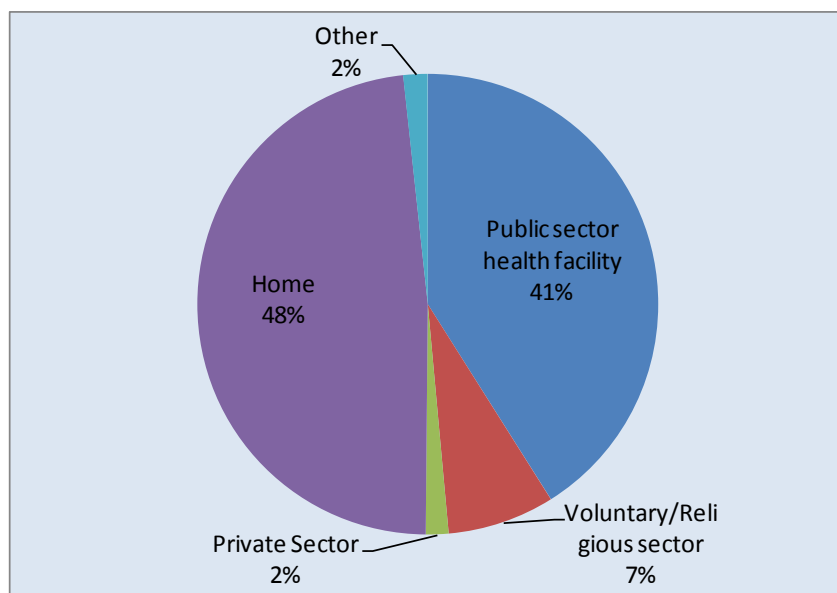
## 4.2 Maternal, Newborn and Child Health (MNCH) Service

### 4.2.1 Strategic Objectives of MNCH Service

In HSSP III, the strategic objectives of MNCH are stated as: 1. Increase access to Maternal, Newborn and Child Health (MNCH) services, 2. Strengthen the health system to provide the quality of MNCH and nutrition services.

### 4.2.2 Antenatal Care Service and Delivery Service Provision and Utilization

As is described in 3.2.1, the Maternal Mortality Ratio has not improved in the past few decades. According to TDHS 2010, the percentage of deliveries at home is high (48.1%) and the percentage of deliveries by a non-skilled provider is also high (49.4%). Those are the key direct causes for high maternal mortality in Tanzania. In order to find the reasons for the high prevalence of home delivery with non-skilled birth attendants, it is important to look at the access to health facilities and the quality of antenatal care. According to TDHS 2010, around 36% of women found difficulties one way or another to access a health facility.



Source: Tanzania Demographic and Health Survey, 2010 [11]

Figure 4-1 Place of Delivery

According to the TDHS 2010, the major perceived barrier to women's access to health services is lack of money (24%), followed by the distance to a health facility (19%) and not wanting to go alone (11%). In contrast, only 2% of all women state obtaining permission as a big problem.

According to the TDHS 2010, only 43% of all women interviewed received ANC more than 4 times during their pregnancies. This percentage declined from 76% in the 1999 survey "Tanzania Reproductive Health and Child Health and Facility survey", and 62% in TDHS 2004-05. 53% of women who received ANC for their most recent birth in the last five years prior to the TDHS 2010 received information about signs of pregnancy complications. 68% of the same women had blood pressure measurements, 52% gave urine



samples and 76% had blood samples taken. This result shows that close to half of pregnant women did not receive the basic ANC services during ANC visits.

### 4.2.3 EPI Service

In Tanzania, a child should receive one dose of BCG, three doses each of DPT and polio vaccines, and one dose of measles vaccine. DPT is no longer given to infants as a stand-alone vaccine. It has been combined with either HB or HB and Hib together. 66% of all children surveyed received all basic vaccinations by 12 months of age, the number has slightly increased from 62% in the TDHS 2004-05. Only 3% of children did not receive any vaccination at all. At least nine out of ten children received BCG, DPT/DPT-HB 1 and 2 (or DPT-HB-Hib 1 and 2), and polio 1 and 2. However, the proportion of children receiving the third dose of DPT/DPT-HB (or DPT-HB-Hib) and polio vaccine is lower (88 and 85% respectively). According to the TDHS 2010, there was a large geographical disparity in immunization coverage<sup>8</sup>.

### 4.2.4 Family Planning Service

The contraceptive prevalence rate has increased significantly from 26% of married women in 2004-05 to 34% in 2010 according to the TDHS 2005-4-05 and 2010. Also use of modern methods increased from 20 to 27% of married women in the same period. The total fertility rate (TFR) was 5.7 in 2004-05 and the same rate slightly decreased to 5.5 in 2010 in Tanzania according the TDHS. While the world average TFR was 2.5 in 2009 according to the UNICEF report: 'The State of the World's Children 2011', Tanzania still has a much higher TFR along with other Sub-Saharan African countries (TFR 5.9, 2009) [1].

## 4.3 Communicable Diseases Control

### 4.3.1 HIV/AIDS Control

#### (1) HIV/AIDS Strategic Objectives

In HSSP III, HIV/AIDS strategic objectives are stated as: 1. Maximize the health sector contribution to HIV prevention, 2. Accelerate the access and utilization of HIV/AIDS care and treatment services, 3. Scale up integrated TB and HIV services, and 4. Scale up STI control.

#### (2) HIV/AIDS Control Institutional Arrangement

The first cases of AIDS were reported in the Kagera region in 1983. In 1985, the government set up the National AIDS Control Programme (NACP) to coordinate the response and established AIDS coordinators in each district (District AIDS Control Coordinator: DACC) and coordinators at the regional level (Regional AIDS Control Coordinator: RACC). The NACP developed a medium term plan for the period of 1987-1991 which was then followed by two more medium term plans. Currently, the Tanzania HIV/AIDS control programme follows the Health Sector HIV/AIDS Strategic Plan 2008-2012 (HSHSP II).

The Tanzania Commission for AIDS (TACAIDS) was then established in 2002 to coordinate the multi-sectorial response, bringing together all stakeholders including government, business and civil society

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<sup>8</sup> The province with the highest immunization coverage was Kilimanjaro (94%) and the lowest was Tabora (42.1%) for children aged between 12-23 months. The provinces with lower immunization coverage were Tabora (42%), Shinyanga (62%), Lindi (65%) Kigoma (67%), and Rukwa (67%) according to the TDHS 2010.

to provide strategic guidance to HIV/AIDS programmes, projects and interventions. In 2003, TACAIDS launched the first National Multi-sectoral Strategic Framework (NMSF) 2003-2007, which outlined all areas of focus for stakeholders including cross-cutting themes like stigma and discrimination, as well as prevention, care and support.

### (3) Financing for the HIV/AIDS Programme

According to the National Health Account (NHA) 2005 [23] and NACP report “HIV and AIDS in Tanzania” [24], national expenditure on HIV/AIDS in 2003 was 33.8 million USD, which increased sevenfold in 2006 to 266.7 million USD, then it increased more than tenfold in 2008 to 400 million USD. Most of the increased amount came from donors. The proportion of national expenditure on HIV/AIDS to the GDP in 2003 was 0.24% which increased to 2% in 2006.

The Tanzanian HIV/AIDS response is heavily reliant on foreign funding. According to the NACP report in 2011, almost of all (95%) of funding for the national HIV/AIDS programme in 2007/08 came from donors, in which more than two thirds of the amount was provided by the Global Fund and PEPFAR. HIV/AIDS funding made up one third of all aid coming to Tanzania in total in the same year.

### (4) Current HIV/AIDS Prevention Activities and Outputs

Voluntary counseling and testing (VCT) services were first initiated in 1989 in Tanzania and are now available at 2134 sites across the country according to the NACP report in 2011 [24]. Community based VCT involves mobile VCT services and community based support services deliver HIV testing to individuals that are unable or unwilling to access standard clinic based VCT services, which are often some distance from communities. Tanzania’s prevention of mother-to-child transmission (PMTCT) programme was first piloted in 2000 with the aim of rolling out PMTCT to all reproductive and child health services. Overall 70% of all HIV positive pregnant women in need of anti-retroviral therapy to reduce the risk of HIV transmission to their child received it in 2009. For the treatment of HIV and AIDS, the 2001 national policy on HIV/AIDS recognized anti-retroviral treatment as a right for all people living with HIV. In 2003, the William J Clinton Foundation and a group of Tanzanian experts created a step-by-step Care and Treatment Plan (2003-2008), which was adopted by the Tanzanian cabinet. In 2003, the Tanzanian government pledged to provide ARV (anti-retroviral drug) free of charge to all people living with HIV/AIDS. In 2009, half of those living with HIV/AIDS were receiving ARV [16], however, it still needs more input to cover 100% of people in need.

The following table shows the outputs of HIV/AIDS controlling activities which were reviewed in the 11<sup>th</sup> joint annual sector review in 2010.

**Table 4-2 Recent Outputs of HIV/AIDS Control**

Output (by May 2010)	% or Numbers
Percentage of women with HIV receiving ARV from PMTCT <sup>1</sup>	68
Utilization of condoms (2007/8) <sup>1</sup>	
■ Men	49% (2002/3: 47%)
■ Women	46% (2002/3: 42%)
Number of HIV patients started on ART <sup>1</sup>	341,668 (target No: 440,000)
Percentage of children who are at risk of HIV infection receiving ART (2009) <sup>2</sup>	50%

Sources: 1. 11th Joint Annual Health Sector Review, MOHSW, 2010[25]  
2. HIV and AIDS in Tanzania, MOHSW, 2011 [24]

### 4.3.2 Malaria Control

#### (1) Malaria Control Strategies Objective

In HSSPIII, the malaria strategic objective is stated as: to implement universal access to malaria intervention, through effective and sustainable collaborative efforts. The national malaria medium term plan (2008-2012) aims to rapidly scale up the level of coverage in the main intervention areas by adapting cost-effective sustainable channels.

#### (2) Malaria Control Institutional Arrangement

The National Malaria Control Programme (NMCP), MOHSW is the programme responsible for implementing malaria control in Tanzania. NMCP works to reduce the burden of malaria by increasing access to the most effective and affordable protective measures. These measures include use of insecticide treated mosquito nets (ITNs) and increased coverage of prompt and effective treatment. NMCP also promotes the use of intermittent preventive treatment (IPT) against malaria for pregnant women. The National Malaria Control Strategy incorporated all these effective and affordable interventions and also includes other vector control measures such as indoor residual spray and epidemic prevention and control.

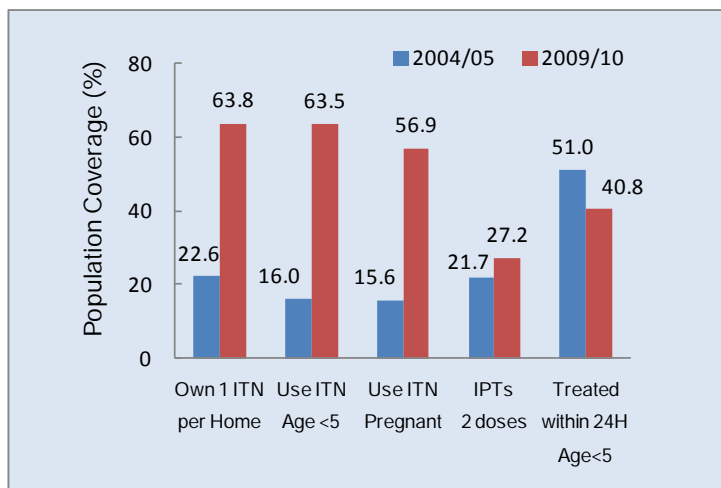
#### (3) Outputs of Malaria Control Activities

From two documents; TDHS 2004/05 and 2010, some indicators are summarized in the following figure. These indicators are “percentage of households owning at least one ITN”, “percentage of children under-five years of age who slept under ITN the night before the survey”, “percentage of pregnant women who slept under ITN the night before the survey”, “percentage of pregnant women who took 2 doses of IPT”, and “percentage of children under-five years of age with fever who took malaria treatment drugs within 24 hours”.

According to the result, owning and using of ITNs has dramatically increased during this period. Full scale introduction of ITNs to Tanzania occurred around 2004, and so the increase of ITN owning and utilization can be expected. But not only that, the voucher scheme for ITNs accelerated their coverage. The percentage of pregnant women who used 2 doses of IPT also showed a slight increase, but the percentage of under-fives with fever treated with drugs within 24 hours showed a decline. The regions where there are lower percentages of households with at least one ITN are: Singida (34.1%), Morogoro (36.9%), Kilimanjaro (48.6%), Arusha (51.1%) and Iringa (52.5%). The regions where there are higher percentages are: Unguja South (90.3%), Pemba North (88%), Unguja North (86.8%), Shinyanga (84.6%) and Mara (84.3%). In Zanzibar, the percentage of households with at least one ITN is high and malaria prevalence in the area is

low. Northern Tanzania such as Kilimanjaro and Anusha have lower percentages of owing ITNs, however, because of the high altitude of these areas, the mosquito density is low.

Malaria treatment in Tanzania is mainly based on clinical judgment in the majority of health facilities, especially lower level facilities. Most of the health facilities (85%, 2009) lack laboratory diagnostic capacity for malaria, hence most of the reported malaria cases are clinically diagnosed cases. Mis-diagnosed cases of malaria can lead to drug resistant malaria and wasting of funds for treatment. Also self-medication of malaria is another issue in Tanzania.



Source: Tanzania Demographic Health Survey 2004/05, 2009/10 [11]

Figure 4-2 Outputs of Malaria Control Activities

## 4.4 Nutrition Improvement

### 4.4.1 Strategic Objectives of Mitigation of Nutritional Problems

In HSP III, the strategic objectives for mitigating nutritional problems are not mentioned. In MKUKUTA II, it is mentioned that child malnutrition fuels illnesses, undermines learning, erodes human capital and reduces labour productivity. It also mentions that the problem of nutrition ultimately affects growth and labour market outcomes in adulthood. Four operational targets related to nutrition and child growth have been set to guide the implementation of strategic interventions: (i). Proportion of under-fives underweight reduced from 21% (2010) to 14% by 2015; (ii). Proportion of stunted under-fives reduced from 35% (2010) to 22% by 2015; (iii). Prevalence of exclusive breast-feeding in children under 6 months increased from 50% (2010) to 60% by 2015; and (iv). Proportion of anaemic women and children reduced from 48.4% to 35% in women; from 71.8% to 55% in children by 2015.

### 4.4.2 Institutional Arrangement for Nutrition Problems

In HSSP III no concrete approaches or interventions were mentioned. In the plan under MNCH, “anaemia among pregnant women and children under-five” is mentioned, however, the concrete interventions are not clearly stated. The issue of food and nutrition is a multi-sectorial issue and needs to have a higher level of coordination among stakeholders such as in agriculture, water, education, gender, economy, and metrology.

## Chapter 5 Health System

### 5.1 Human Resources for Health (HRH)

#### 5.1.1 Provision of Human Resources

The major issue in the human resources for health in the Tanzanian health sector is the alarming shortage of human resources at all levels, which constrains the delivery of health services to people in need. MOHSW formulated the Human Resource for Health Strategic Plan 2008-2013, however, the workforce planning which is the most important part of the whole plan has not been completed due to technical, informational and financial shortage.

#### 5.1.2 The Current Situation of HRH

The table below shows the number of human resources by occupation and by sector extracted from the report of Tanzania Service Availability Mapping (SAM) 2005-2006<sup>9</sup>. According to the table, one third of the total number of doctors (1338) was working in the private sector. The geographical concentration of doctors is highest in Dar es Salaam (693) which is 52% of the total number. The number of doctors per 10,000 of the population in Dar es Salaam is 2.5 which is 6 times higher than the national average of 0.4 per 10,000 population. In terms of Assistant Medical Officers (AMOs), the total number is almost the same size as doctors but 74% of AMOs were working in the public sector. The ratio of the sum of doctors and AMOs per 10,000 of the population is over one per 10,000 in Dar es Salaam, Arusha, Mwanza, and Zanzibar; on the other hand, the figure is less than 0.5 per 10,000 in Shinyanga, Tamora, Kagera and Mbeya. The number of clinical officers is 2.5 times more than the total number of doctors and AMOs.

**Table 5-1 The Number of Human Resources by Occupation by Sector**

Health Cadre	Public sector	Private sector	Total	Ratio (per 10,000 pop)
Doctors	884	455	1,339	0.4
Assistant Medical Officers	1,139	295	1,434	0.4
Clinical Officers	5,644	1,264	6,908	1.8
Nurses	4,255	586	4,841	1.3
Midwives	8,542	1,448	9,990	2.6
Nurses+Midwives	-	-	14,831	3.9

Source: Tanzania Service Availability Mapping 2005-2006, MOHSW Mainland and Zanzibar [26]

The total number of nurses is 4,841 and 82% of them are working in the public sector. The total number of midwives is 9,990 and 85.6% of them are working in public sector. A total of 4841 nurses and 9990 midwives correspond to 1.3 nurses and 2.6 midwives per 10,000 of the population. There is a difference between regions: Zanzibar has about twice as many nurses and midwives combined compared to the mainland: 8.2 and 3.8 per 10,000 of the population, respectively. Only the DES region has more nurses and midwives; 4.0 and 4.5 per 10,000 of the population, respectively.

It has been estimated however, in the World Health Report 2006, that countries with less than a total of 23 physicians, nurses and midwives together per 10,000 of the population generally fail to achieve adequate coverage rates for selected primary health care interventions as prioritized by the MDG framework [27].

<sup>9</sup> The survey covered 13 regions from the mainland Tanzania and Zanzibar and was implemented by MOHSW with the support of WHO

Tanzania only has a total of 4.7 physicians, AMOs, nurses and midwives together per 10,000 of the population, which is less than one quarter of the number needed for achieving adequate coverage of selected PHCs interventions.

According to the Human Resource for Health Strategic Plan (HRHSP) 2008-2013, the total percentage of HRH shortage is 65% in the public sector and 86% in the private sector.

**Table 5-2 Human Resources for Health Staffing Shortages**

Sector	Total number of requirement (2006)	Total available number (2006)	Shortage (2006)
Public sector	82,277	26,063	56,214 (65%)
Private sector	43,647	6,139	37,508 (86%)
Total	125,924	32,202	93,722

Source: Human Resource for Health Strategic Plan 2008-2013, MOHSW 2008 [28]

The shortage of human resources for health would be accelerated by the rapid increase of the population with the 2.9% population increase rate and the increasing demands of preventive and curative services by the prevalence of HIV/AIDS, malaria, TB and some other communicable diseases. Adding to the situation, in the Primary Health Service Development Plan 2007-2017, it is planned to establish new health facilities to increase the coverage of health services, hence, the demands for human resources for health will be increased further. If the plan is implemented, the shortage is expected to be much higher.

The shortage stems in large part from the Retrenchment Policy coupled with an employment freeze implemented from 1993 to 2005, which led to a sharp decline in the health workforce. During that period, 23,474 health staff graduated from different training institutions, yet only 16% were employed in the public sector. While the government is undertaking efforts to hire additional health workers, the net effect is marginal compared to existing shortages.

### 5.1.3 Production of Health Workforce

Among the most serious challenges facing human resource development is the existing low HRH production capacity, which has not kept pace with the growing needs of Tanzania's health sector both in quantitative and qualitative terms. As shown in the following table, Tanzania has a total of 116 training institutions, of which 72 are government institutions and 44 are private sector institutions. There are 7 medical universities, of which six are privately owned.

**Table 5-3 Public/Private Training Facilities and Institutions**

Training/Education Facilities	Public Sector	Private sector	
		Profit making	FBOs & CBOs
University	1	3	3
Allied Health College <sup>10</sup>	45	7	7
Nursing College	27	2	28

Source: Proposal for a Tanzania Health Workforce Initiative, Draft 3, CIDA 2009 [29]

These health training institutions face their own unique and urgent constraints including poor infrastructure, as well as a serious shortage of skilled teaching staff [29]. Public training institutions face a 74% shortage of trainers, while private training institutions face a 62% shortage. The quality of the teaching in many health training institutions is another major challenge. Many trainers have never received education in teaching

<sup>10</sup> Allied Health College train clinical officers and technicians, etc.

methodology, they are hired on the basis of their health profession. The MOHSW aims to resolve the shortage of health workers by increasing training output from the 2008 level of 3,874 to 17,955 annually, by building new training institutions, and expanding the involvement of the private sector in training health workers [30].

#### 5.1.4 Health Workforce Plan

Human Resources for Health Strategic Plan 2008-2013 was formulated aiming to resolve a serious Human Resource crisis that is negatively affecting the ability of the sector to deliver quality health services. The health workforce plan is an important component for human resource management, however, the HRHSP pointed out that limited skills hamper human resource planning capacity at all levels of the Health and Social Welfare system. The absence of quality information and chronic under-funding also constrain the systematic analysis of demand and supply projections for human resources. Moreover, the unforeseen demand imposed by the Health Sector Programmes affect accurate projection of human resource needs [28].

PHSDP (2007-2017) aims to establish a dispensary in every village, a health centre in every ward and a district hospital in each district. However, there is no step-wise detailed plan to realize such facility development and the lack of such a plan will affect the human resource demand. It is necessary to collect more comprehensive information on the demand side and also the supply side for more realistic workforce planning.

#### 5.1.5 Recruitment and Retention

Low human resource management capacity has contributed to a slow recruitment process, delay in staff placement and a slow promotion process. In the Proposal for a Tanzania Health Workforce Initiative in 2009, it is mentioned that long lag times between graduation from training institutions and recruitment (often up to 9 months), as well as long lag times between hiring and first payment (often up to 3 months), are disincentives which often lead to trained health workers accepting work outside of the health sector [29]. Poor remuneration and conditions of service, including limited opportunities for professional development and socio-economic challenges also contribute to low productivity, poor performance and low retention rates, especially in rural and hardship areas.

The issue of a brain drain of physicians and nurses seems to be one of the contributing factors to the shortage of HRH, however, detailed information on the brain drain is not available, and there is no policy on stopping such trends under current circumstances.

There is poor coordination among the multiple institutions responsible for HRH shown in the table below.

**Table 5-4 Institutions Responsible for HRH**

Institutions	Mandates
MOHSW	Coordinating policy formulation, guidelines, standards, curriculum development and the analysis of HRH information
President's Office-Public sector Management (PO-PSM)	Sets remuneration levels and allocates postings
Ministry of Finance (MOF)	Financial allocations to the health sector
Prime Minister's Office, Regional Administration and Local Government (PMO-RALG)	Overseeing and supporting the work of the regions and districts and employer of health workers at the district level
Ministry of Education and Vocational Training (MOEVT)	Training of health graduates in institutes of higher learning.

Source: Health Sector Joint External Evaluation Report (1999-2006) [31]

Coordination within the MOHSW's three departments involved in the management of human resources: Policy and Planning, Human Resource Development, and Administration and Personnel, is also problematic, as is coordination between the national, regional and district levels.

### **5.1.6 Quality Issue of HRH**

The issue of the quality of HRH is as important as the issue of quantity. However, it is not a very easy task to evaluate the situation of the quality of existing HRH. According to a small study carried out in 2001 "Bypassing Health Centres in Tanzania: Revealed Preferences for Observable and Unobservable Quality [30]", the patterns of bypassing observed in Iringa rural district in Tanzania show evidence of patients' understanding of various measures of quality at the facilities that they visit and bypass. Importantly some of these measures are 'unobservable', meaning that we do not expect patients to be able to evaluate whether or not these types of quality are present just from visiting a centre. It might be, therefore, feasible to assess the quality of service by measuring the bypassing of health facilities.

The issue of the quality of HRH is derived not only from the issue of pre-service education mentioned in 5.1.3, but also in-service training and continuous professional development (CPD) is designed to update and improve health worker skills and knowledge to ensure quality service provision. However, in-service training and CPD are facing major challenges including the absence of individual efforts and an enforcing mechanism to encourage workers to undertake training based on self-identified needs. Another challenge is the lack of a National Training Plan that focuses on structured post-graduate training to meet emerging needs for specialists. MOHSW has established 8 zonal Training Centres (ZTCs) to facilitate the updating of health workforce skills, however, shortage of human resources and financial resources constrains their activities.

## **5.2 Health Information Management Function**

The Health Management Information System (HMIS) is based on routine service statistics, but population-based indicators can only be reliably measured in large surveys such as the Census, the Demographic and Health Survey (DHS) and the Household Budget Survey.

### **5.2.1 Health Management Information System (HMIS)**

Within the Health Information and Resource Section (HIRS) of the Policy and Planning Division of the MOHSW, the HMIS unit processes and analyses routine data from all health facilities. The HMIS has various problems due to reported staff shortages. In the Joint External Evaluation of the Health Sector in Tanzania, 1999-2006, several issues and achievements were identified as follows:

#### Issues identified in the evaluation 1999-2006

- Despite improvements there is a persistent issue with the completeness of HMIS data submitted to the Health Information and Research Section at MOHSW. However, there seems to be some evidence that the importance of collecting health data is better understood among health workers and the ability of analysis and utilization of it is increasing [31].
- The analysis and utilization of information at council level is a problem.
- The inefficiencies of the HMIS in the past resulted in vertical programmes developing their own systems for



specific diseases such as malaria, TB and HIV/AIDS.

- All health facility staff interviewed noted that there is not much quality feedback on the content and meaning of their HMIS reports from the level above.
- The reports and registration of births and deaths coverage is low.

#### Major achievement identified in the evaluation 1999-2006

- A notable achievement in the Tanzania HMIS is its coverage of all health facilities (government, private, NGOs, FBOs, and parastatal). This allows comparison of data across all health facilities, as well as providing a more complete picture of the burden of disease and service utilization, and also it can be very useful for situation analysis and planning.
- Over time the HMIS system has come to be perceived as more understandable and easier to use among health workers. The more positive view seems to be related to understanding the importance of data collection and the ability to analyse and utilize it.

### **5.2.2 Utilization of Health Information**

All Councils use the HMIS data for preparing their Comprehensive Council Health Plan: CCHP, but the collected information is largely forwarded without in-depth analysis at the lower level. The district self-assessment found that only five out of 16 districts claim that the HMIS enhances planning activities [31]. At the central level, epidemiologist, statisticians, and IT specialists tend to move to the private sector which leads to a shortage of staff and problem of continuity. At the district level, CHMT members including the DMOs, do not have sufficient expertise to optimally benefit from the health information system.

It is very important at the facility level for health workers to analyse and utilize the data they collected in order to understand the health situation and identify the health problems existing in their areas. Unless they understand the importance of collecting complete and accurate data, the quality of information will not improve. The basic skills and necessary knowledge of data analysis, statistics and IT should be given to the users at the health facility level.

Integration of existing HMIS and programme based information systems is key to reducing the workload for collecting information and to enhance the effectiveness of HMIS.

## **5.3 Health Facilities/Basic Equipment / Drug Supplies**

### **5.3.1 Health Facility Network**

According to the Joint External Evaluation 2006 [31], the number of health facilities increased from 3790 in 1995 to 5795 in 2006. In the situation analysis in the HSSP III, health facilities are counted as more than 6000. By the type of the ownership, public health facilities were counted as 66.5%, followed by NGO owned health facilities (16.2%) and those privately owned (14%). Table 5-5 shows the number of health facilities by type of ownership.

**Table 5-5 Health Facilities in the Country by Type of Ownership**

Total pop. of 13 regions	Number of facilities					Facilities per 10,000 population	Privately owned (%)
	Public	NGO	Private	Other	Total		
38,112,914	3,856 (66.5%)	941 (16.2%)	810 (14%)	188 (3.2%)	5,795	1.52	14

Source: Tanzania Service Availability Mapping 2005-2006, MOHSW Mainland and Zanzibar [26]

The same survey shows that proportion of private ownership is much higher in Dar es Salaam and Unguja Town regions, 48% and 56% respectively. The average percentage of privately owned health facilities among the other 11 regions is less than 10%. By the type of health facilities, 85% of all facilities were dispensaries or primary care facilities, 9% were health centres and the remainder included different types of hospitals.

Many primary level health facilities such as health centres and dispensaries were built a long time ago, so that now the aging of buildings is becoming a problem. The HSSPIII mentioned that the new elements of service provision require more space (e.g. emergency obstetric care, VCT). New standards for building have been developed, but most health facilities do not meet those standards. Huge investments in infrastructure and equipment development are needed to renovate and build new facilities to match the unmet needs of the population. In HSSPIII, expansion of infrastructure is prioritized for underserved rural areas. A strategy for maintenance and management should be included in the district health plans, and contributions from the private sector need to be encouraged.

### 5.3.2 Quality of Health Facilities

In addition to the deterioration of health facilities, other issues include the lack of water supply, electricity supply and communication equipment. In the Joint External Evaluation report, 50% of all health facilities did not have an electricity supply. According to SAM 2005-2006, the majority of districts reported that less than half of the facilities had access to safe water. In these conditions, it is difficult to maintain a cold chain for EPI and to keep the facility clean and safe. Therefore the quality of health facilities remains low. On the other hand, hospitals have a budget line for facility development and maintenance; in particular, medical laboratory and x-ray machines are maintained well by the budget for HIV/AIDS.

### 5.3.3 Hospital Equipment

According to SAM 2005-2006, 7 basic pieces of equipment in health facilities (excluding hospitals) were examined in Zanzibar, Dar es Salaam, Mwanza and Kibaha districts, and on average 84% of basic pieces of equipment<sup>11</sup> were available in all districts, ranging from 79.5% in Magu, Mwanza district to 95.1% in Geita, Mwanza district. In 42 hospitals in the same districts surveyed, the majority of all hospitals had key hospital equipment<sup>12</sup>, though hospitals in Zanzibar were less adequately equipped than those on the mainland.

### 5.3.4 Drugs Management System

The supply of drugs, equipment and medical supplies provided by MSD has been improving over a long period of time, however, shortage and delays in delivery are still common.

<sup>11</sup> Blood pressure machine, stethoscope, thermometer, weighing scales for children aged less than 5 years, scales for adults, latex gloves and refrigerator

<sup>12</sup> X-ray, oxygen, autoclave, IV infusion, theatre, anaesthesia, cytoflow meter, haemocytometer, ambulance and incinerator

### (1) Medical Stores Department: MSD

MSD is an autonomous government department acting under the MOHSW. The Board is appointed by the MOHSW and the Chair of the Board by the President on recommendation of the MOHSW. The MOHSW, MOF, PMO-RALG, Christian Social Service Commission (CSSC), referral hospitals, RMOs and the Attorney General's office are represented on the Board. MSD has 8 zonal stores, a headquarters and central warehouse in the capital. MSD is responsible for procurement of all essential medicines, supplies and equipment for the public health sector and for distribution down to the district level.

There are three ordering systems in Tanzania, but MSD strives to have the whole country on the Integrated Logistic System (ILS) by 2010.

**Table 5-6 Drugs Ordering System**

	<b>Drugs Ordering System</b>	<b>No. of districts</b>
Push System	Each health facility receives a monthly kit with standardized contents.	5
Indent System	A pull system. Each health facility orders according to need, excluding items for the large vertical programmes, which are still supplied in fixed quantities.	10
Integrated Logistic System	A pull system. Each health facility orders according to need, also includes items for vertical programmes.	7

Source: Health Sector Joint External Evaluation Report (1999-2006) [31]

### (2) Availability of Drugs

SAM 2005-2006 looked at the availability of 11 selected drugs and commodities. In general, availability of the 11 drugs and commodities was better in public facilities than in private facilities. Around 80% of health facilities (overall average) in each selected district showed the availability of 11 selected drugs, ranging from 66.2% to 86.4%. According to the Joint External Evaluation (1999-2006), the situation of hospitals had not improved as much as in health centres and dispensaries. This is likely due to the fact that hospitals need more specialized drugs, which MSD does not stock in large quantities and which might also take longer to procure.

Kits of drugs are distributed once a month, but almost never contain enough items to last the whole month, due to different seasonal disease patterns in different areas. The Joint External Evaluation report (1999-2006) mentions that the introduction of the indent system and the even more recently, the introduction of the Integrated Logistics System have not improved the availability of drugs.

### (3) Major Problems of the Drug Management System

In the Joint External Evaluation report (1999-2006), several causes of problems in the existing drug management system are mentioned.

The major problems are due to: (i) weak drug management capacity at the MSD with no competition and (ii) the drug budget is insufficient, in particular for hospitals, (iii) health facility staff have not been sufficiently trained in how to calculate how much to order, (iv) delay in procurement and/or distribution by MSD, (v) centralization of processing all orders in DES and Mwanza, (vi) lack of buffer stock, (vii) other reasons such as expiration, misuse and shortcoming in storekeeping facilities.

## 5.4 Health Financing

### 5.4.1 Situation of Health Financing

**Table 5-7 The Situation of Health Financing (2002/03, 2005/06)**

	2002/03	2005/06
Total expenditure on health (million Tshs)	493,056	1,133,765
Total expenditure on health as a % of GDP	5.0%	7.6%
Per capita total expenditure on health (Government per capita total health expenditure)	13.89US\$ (3.41US\$)	24.5US\$ (6.89US\$)
Government total expenditure on health as a % of total government expenditure	6.1%	7.1%

Source: Tanzania National Health Accounts (NHA) Year 2002/3 and 2005/6 [23]

Comparing figures of health expenditure 2002/03 and 2005/06, there are several findings as follows. Total health expenditure doubled from 493 bn Tshs in 2002-03 to 1,133 bn T shs in 2005/06. However, the total expenditure of health as a % of GDP increased only from 5.0% in 2002/03 to 7.6% in 2005/06, which is only a 53% change.

Per capita total health expenditure increased from 13.89 USD in 2002/03 to 24.6 USD in 2005/06, however, it is still a lower number than the WHO recommended per capita health expenditure: 30 to 40 USD to cover the minimum package of health services. The government expenditure on health accounted for 7.1% of total government expenditure in 2006, which has increased by 1.0% from 2003. This percentage was, however, less than the Abuja Declaration target, whereby it was agreed that, governments should allocate at least 15% of the total government budget to health.

### 5.4.2 Distribution of Total Health Expenditure

#### (1) By Financing Source

**Table 5-8 Distribution of Total Health Expenditure by Financing Source (%)**

The financial source (%)	2002/03	2005/06
Public	25.4	28.1
Private	42.0	24.8
Donors	27.4	44.1
Other Private Funds	5.1	3.0

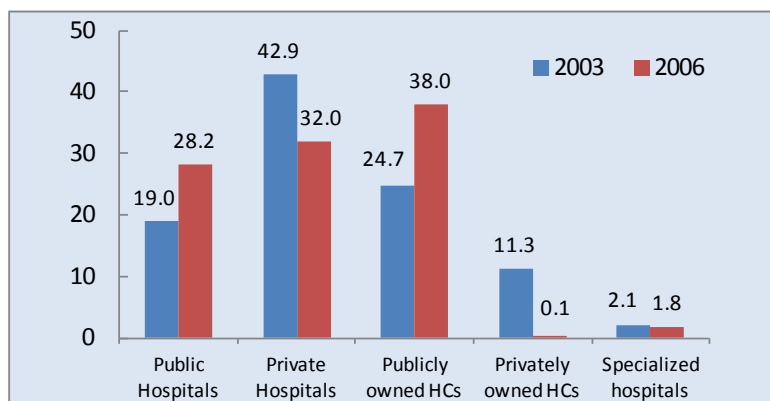
Source: Tanzania National Health Accounts (NHA) Year 2002/3 and 2005/6 [23]

In the year 2005/06 government expenditure on health was 28.1% of the total health expenditure and this was an increase of 3% from the year 2002/03, on the other hand, private health expenditure decreased from 42.0% in 2002/03 to 24.8% in 2005/06 and health expenditure by donors increased from 27.4% in 2002/03 to 44.1% in 2005/06. The largest share of the increase in the total health expenditure is accounted for by donor funding for HIV/AIDS - interventions through the Global Fund to Fight AIDS, tuberculosis and malaria, and other donor initiatives such as the President's Emergency Plan to Fight AIDS (PERPFAR) and the Basket Fund for health arrangement.

Comparative analysis of the total health expenditure per capita in the countries within the Southern Africa Development Community (SADC) shows that in 2003/04 Tanzania ranked forth from the bottom among the 14 SADC countries.

## (2) By Provider Type

Figure 5-1 shows the percentage distribution of total health expenditure by provider type in 2003 and 2006. As the figure shows, spending at the hospital level had the highest proportion in 2002/03 but the third highest in the year 2005/06. Expenditure by private hospitals decreased by 10 percentage points during the period, on the other hand the primary health care provider's expenditure increased from 25% to 38%, but still if the figures of public and private hospitals combined, it would be a much higher expenditure than that of public health centres.



Source: Tanzania National Health Accounts (NHA) Year 2002/3 and 2005/6 [23]

**Figure 5-1 Percentage Distribution of Total Health Expenditure by Provider Type, 2003 and 2006**

## (3) By Function

Table 5-9 shows the distribution of total health expenditure by function, which is the services that are offered by the different health care providers. Curative care declined from 43% in 2002/03 to 36% in 2005/06. This might be due to the reduction of serious cases which require admission because of improvements in public and preventive services, or a shift to home based care for long term illnesses like HIV and AIDS, however, the real reasons are not known. Preventive and public health services seem to be the second most important component with regard to total health expenditure. The share of this component increased from about 16% in 2002/3 to 30% in 2006/7.

**Table 5-9 Distribution of Total Health Expenditure by Function (%)**

Total Health Expenditure by Function	2003/4 (%)	2005/6 (%)
Inpatient curative services	26.3	18.7
Outpatient curative services	17.0	16.9
Medical and diagnostic laboratories	0.3	0.8
Medical goods dispensed to outpatients	18.0	10.4
Prevention and public health services	16.5	30.5
Health administration and health insurance	11.7	4.3
Capital formation	2.4	5.7
Expenditure not specified by kind	7.8	12.8

Source: Tanzania National Health Accounts (NHA) Year 2002/3 and 2005/6 [23]

## (4) Distribution of Total Health Expenditure by the Financing Agent

Table 5-10 shows that the major financing agent on the Tanzanian mainland is the Ministry of Health and Social Welfare (MOHSW) which was responsible for 33% of the total health expenditure in 2006. The role of households in managing health funds was still significant in 2006 although it had declined compared to the year 2003. Local authorities show an increasing role in managing the health funds as their share increased from

8.7% in 2003 to 11.4% in 2006 and this is attributed to two major reasons: (i) decentralization by devolution whereby powers to plan and make decisions on the use of development funds, including health funds, were devolved to local authorities, (ii) the increased amount of funds from the health basket which are transferred to the local authorities for management and implementation of health interventions.

**Table 5-10 Distribution of Total Health Expenditure by the Financing Agent (%)**

<b>Financing Agent</b>	<b>2003 (%)</b>	<b>2006 (%)</b>
Ministry of Health and Social Welfare	34.0	33.4
TACAIDS	-	3.6
Other Ministries and Government Agencies	1.5	9.0
Local Authorities	8.7	11.4
Private Insurance Scheme	1.1	2.0
Community Health Fund	1.8	1.6
Household Out of Pocket Payment	40.6	26.0
NGO	3.1	3.0
Parastatal companies	2.5	2.0
Private non-parastatal firms and corporations	1.0	1.0
Rest of the world	5.8	1.5

Source: Tanzania National Health Accounts (NHA) Year 2002/3 and 2005 [23]

## 5.5 Governance and Management

In the health system functions, management and stewardship function is the most important function to lead the direction of the health sector. MOHSW has been largely successful in transitioning from its extensive operational responsibilities at local level to a policy and technical support role, partly through the production of a significant body of guidelines. MOHSW formulates policies, strategic plans, regulations and legislation and develops guidelines. The central MOHSW is also responsible for preventive services, procurement and distribution of equipment, drugs, and supplies through MSD, donor coordination, the overall health budget and MTEF, M&E, human resources planning and quality assurance.

In recent years, the Council (Local Government Authorities) established and improved the decentralized health systems. The Comprehensive Council Health Plan (CCHP) is a well-established tool for planning and monitoring health activities. The management structure, consisting of Council Health Management Team (CHMT) and Hospital Management Team (HMT), facilitates the implementation of health services at the district level, together with a functional community health structure.

### 5.5.1 Policies, Guidance and Technical Support

In the Joint External Evaluation Study Report (1999-2006), it was observed that MOHSW, with the support of Development Partners and other stakeholders, produced an impressive number of policies, strategic plans and guidelines, as well as tools to support health sector reform. In the evaluation, all documents were reviewed and it was agreed that the technical quality of these policies and facilitation materials have generally been high. Operation guidelines were produced, such as: “Treatment guidelines for HIV/AIDS, cholera, malaria and infection prevention”, “Supportive supervision guidelines for quality health care services”, “Guidelines for DDHPs in 2000, 2004, and Plan Rep2 in 2007” and more than ten other guidelines. However, there was general agreement that the Ministry produces too many guidelines and other documents for the CHMT to absorb.

## **5.5.2 Regulation and Legislation of the Private Sector**

More work is urgently needed on regulation of the private sector and legislation to establish a health inspector, developing service agreements with non-state providers and performance-based incentives for health workers.

## **5.5.3 Health Research**

Tanzania has a number of research institutes that undertake a large number of studies covering major clinical areas as well as operational and health system issues. The National Institute for Medical Research, the Ifakara Centre for Health Research and Development, the Research on Poverty Alleviation group and the Central Bureau of Statistics all produce important health research on a regular basis. The results of these studies have not been used effectively by the MOHSW. The joint evaluation report also pointed-out that the effective usage of the data proved to be useful in planning and decision-makings in the health sectors [32]. Consistent with this report, several donors reported the delay of the effectual use of the information.

## **5.5.4 Relationship with PMO-RALG**

MOHSW and PMO-LARG continue to experience difficulties in aligning their organizational cultures and structure, policies and processes. As MOHSW and PMO-RALG have worked to implement Decentralization by Devolution (D-by-D), it has become clear that administrative and technical responsibilities cannot always be easily separated. This in turn means that close day-to-day collaboration between PMO-RALG and MOHSW is extremely important. The project “Technical Cooperation in Capacity Development for Regional Referral Health Management Project 2008-2011”, which is supported by JICA, built the supportive organization (the Central Management Supportive Supervision (CMSS) Team) to supervise the regional health offices. The CMSS consisted of associated supervisors from MOHSW, PMO-RALG, Zone resource centre, and some other provincial health offices, and was evaluated as contributed to strengthen the relationship among health related organizations by developing collaborative processes [32]. Under such situation, MOHSW and PMO-RALG started to collaborate to evaluate the annual LGAs Comprehensive Council Health Plans (CCHPs), and the cooperation has led to strengthen the relationship between MOHSW and PMO-RALG.

## **5.5.5 Regional Health Management Team: RHMT and Regional Medical Officer: RMO**

Acting as the link between the MOHSW and CHMT, the RHMT headed by the RMO represents one of the most important elements of MOHSW’s new policy making and facilitative role. Its role is to interpret and adapt national policies to regional realities, provide support to the CHMT, and to evaluate CCHPs and progress reports before forwarding them to PMO-RALG/MOHSW. With the support of JICA from the draft stage, the document “Functions of Regional Health Management System” which stipulates the roles and functions of the regional health organizations was approved by the MOHSW and PMO-RALG in 2008 [33]. After formulation of the document, JICA supported the project “Technical Cooperation in Capacity Development for Regional Referral Health Management 2008-2011, through which the document was disseminated to the regional and district health offices, and regional government offices, and, as a result, the roles and functions of the health organizations came to be understood by the residents [32]. With the effect of these activities, the RHMT started to receive a part of health basket fund after 2008/2009, and it makes possible for RHMTs to carry out the supervisory activities for CHMTs.

### **5.5.6 District Health Service**

Institutional bodies, such as the Council Health Management Team (CHMT), Primary Health Facility Committees and Hospital Management Committees are in place and functioning, but the Council Health Service Boards and the Hospital Government Committee are weak or non-existent and need to be strengthened and empowered. The strategy for strengthening council health services has been linked to the national strategy of decentralization by devolution (D-by-D) as implemented by the Ministry of Regional and Local Government, most recently PMO-RALG. D-by-D has made significant progress during the first 10 years or so, but there are still important controls on local decision makers by the centre. While this seemed justified during the initial years, more responsibility, financial power and freedom to prioritize and take decisions could be transferred to lower levels of the administration. The financing of District Health Services has improved with an increase in Government funding. The Health Basket Fund (HBF), Community Health Fund (CHF), and user fees have been introduced to provide sustainable sources of funds to bridge gaps in the budget for health service provision. However, bureaucratic procedures, along with the lack of bank account at the health centres and dispensaries, have hampered the potential use of funds.

Councils are engaged in the Comprehensive Council Health Plan (CCHP) process; however, their capacity to formulate a good quality and workable plan was the issue since the devolution started. Many DPs have been making efforts to strengthen the planning and management capacity of CHMTs and CHMTs are showing the progress in the area. The MOHSW and PMO-LARG are responsible for assessing and prepare the consolidated summary analysis of the CCHPs for a part of approving the HBFs. In the 2011/12 annual CCHPs summary report [33], a total of 132 councils health plans assessed from Tanzania mainland, 126 councils are recommended for funding while 6 councils were not recommended. It can be said that the quality of CCHPs is improving.

## **5.6 Issues Identified in the Health System**

The major issue in the Tanzania's health system is insufficient PHC services in quantity and in quality. Merely accelerating the production of HRH is not enough to solve the problem. Inevitably, increasing the productivity of health workers is essential to make the health sector more efficient. Efforts should be made to look into optimization of skills mix, public-private partnerships and communities' participation in their own health. Other policy issues in Tanzania's HRH are: (i) concentration of resources in urban areas, (ii) brain drain of human resources to overseas, and (iii) the lack of incentive packages for those health workers deployed to remote areas. In order to make a proper health workforce plan, a database for demand and supply of human resources should be put in place urgently.

Another major issue in Tanzania's health system is shortage of health facilities especially at the primary level. Health centres which are the main primary health care provider are too small in numbers to achieve universal coverage of PHC services. In addition, most of the existing health facilities do not have water and electricity supplies and are deteriorating because of aging. These problems constrain provision of quality services.

The health management information system (HMIS) functions relatively well. The quality of the Annual Health Statistics reports has improved and the inclusion of the Faith-based Organizations and the private sector in the



HMIS results in more complete data. However, the problem area identified is the reliability of data. Data analysis, information use and feedback to lower levels remain insufficient and restrict improvement of the situation. The integration of an existing routine health information system and programme based information system is another issue in HMIS.

In the area of health financing, the government expenditure on health accounted for 7.1% of total government expenditure in 2006 and it was less than the Abuja Declaration target of 15%. Per capita total health expenditure increased from 13.89 USD in 2002/03 to 24.6 USD in 2005/06, however, it is still lower number than the WHO recommended per capita health expenditure: 30 to 40 USD to cover a minimum package of health services. Moreover, the important question is how close the country is to spending the amount necessary for a universal package of basic services. Increased funds from donors can call into question the fungibility and predictability of funds.

MOHSW has been largely successful in transitioning from its extensive operational responsibilities at local level to a policy and technical support role in the health sector reform starting from 1994. MOHSW and PMO-RALG continue to experience difficulties in aligning their organizational cultures and structures, policies and processes. The regional level was not functioning well and funding was insufficient and/or not available due to no act or legal tool that mandates the RMO and the RHMT. The JICA project “Technical Cooperation in Capacity Development for Regional Referral Health Management” (2008-2011) and some other DPs assisted the MOHSW to formulated and disseminated a document called “Functions of Regional Health Management System” of which clarify the role and functions of RHMT, RMO and other main regional health organization. Although, significant progress has been made in planning, budgeting and management of health services at council level by decentralization, still CCHP needs to improve in the planning process to be a dynamic planning tool and more emphasis on increasing productivity could lead to more efficient use of human resources at local level.

## Chapter 6 Development Assistance and Partnership

### 6.1 Aid Policies

Tanzania is one of the most advanced countries in aid coordination. Tanzania launched the Joint Assistance Strategy (JAST), as a successor to the Tanzania Assistance Strategy (TAS) 2002-2006. JAST (2007-2011) is a medium-term framework aimed at bringing together all Development Partners under a single strategic framework that guides their development assistance in line with the MKUKUTA and the MKUZA. 19 development partners signed MOU with the GOT committing both sides to the JAST in 2006. JAST aims to be more comprehensive covering all aspects of the development partnership, it accommodates all aid modalities and clarifies that General Budget Support (GBS) is the government's preferred modality. JAST also stresses improving the capacity of country leaders to enhance demand for accountability, promoting dialogue with all development stakeholders at different levels, in particular on governance and accountability, and minimize development partners' assistance transaction costs through simplification and rationalization of aid practices. JAST stresses national ownership of policies and development programmes but equally demands mutual and domestic accountability for processes and results.

### 6.2 Overall Aid Trends

#### 6.2.1 Aid Trends

Tanzania has been highly dependent on external support for its development since the 1960s. Government expenditure has increased in the period of 2002/03 and 2005/06 following the increase of aid support [34], however, after 2005/06 aid support and total government expenditure are not moving in parallel [35]. Government expenditure is moving up slowly without an increase in aid support. In 2010, 34% of government expenditure was occupied by aid support which was 10% of GDP, meaning that Tanzania is still heavily depending on overseas financial support.

#### 6.2.2 General Budget Support: GBS

Tanzania receives aid under three modalities: project modality, sector and programme basket funds, and GBS. GBS is one of the on-budget supports from foreign aid to support national development and poverty reduction efforts.

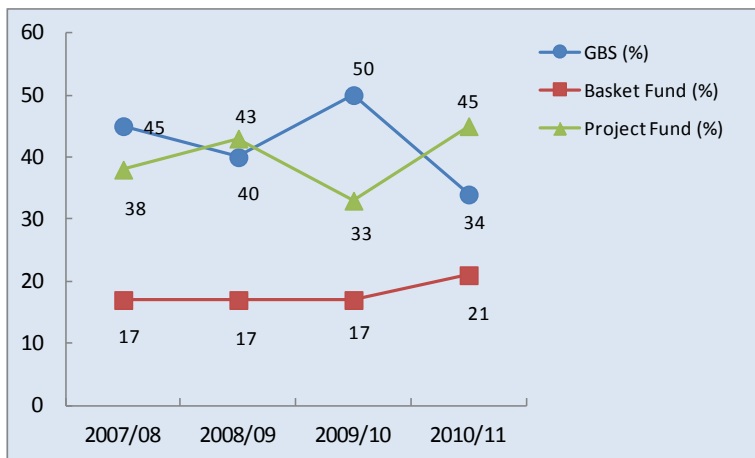
**Table 6-1 Funding Mechanisms in the Health Sector**

Source	On-budget	Off-budget
Domestic	Central Government Funds; Government transfers to National Health Insurance Fund	Health Service Fund (User fees) Community Health Fund/TIKA; Drug Revolving Fund; Council Own-Sources
Foreign	General Budget Support; Health Sector Basket Fund; Certain funded Projects and Programmes	Foreign Funded Projects and Programmes

Source: Health Spending in Tanzania, EU Health ODA and AID Effectiveness, 2010 [36]

In Tanzania, GBS started in 2001 with support from 14 countries. In 2010/11, the percentage of GBS against the total overseas aid was 34% which was 16 percentage points down from the previous year. Japan also started GBS support in Tanzania in 2001; between 2001 and 2004 GBS from Japan accounted for around

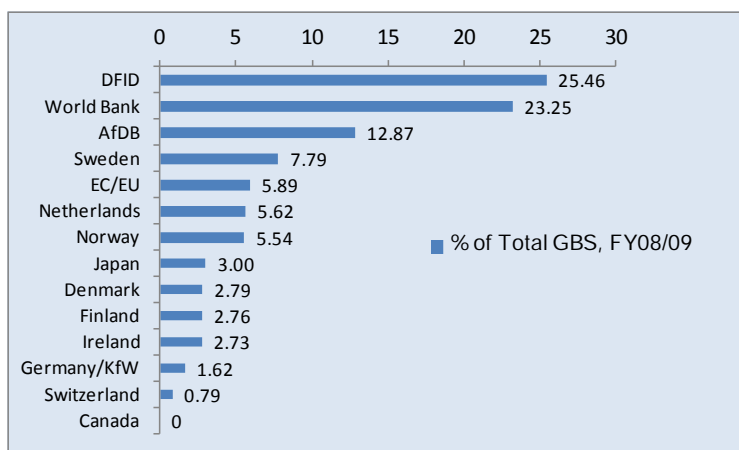
2.9% of the total amount of aid to Tanzania [34]. As the figure below shows, in 2010/11, Project Fund is the largest component in the total amount of foreign aid.



\*Based on data entered in the Tanzania Aid Management Platform by Government and development partners.  
Source: Development Partner Group Tanzania (web-site) [37]

**Figure 6-1 Aid Composition as Percentage of Total Overseas Aid (%) 2002-2008**

Figure 6-2 shows the amount of GBS by donors; Japan occupies 3% of total GBS in 2008/09. The three largest contributors to GBS were DFID (25.46%), World Bank (23.25%) and AfDB (12.87%).



Source: Darlene K. Mutalemwa, Aid Effectiveness and General Budget Support in Tanzania, 2009 [38]

**Figure 6-2 Planned Share of GBS by Donors (2008/09)**

As a result of GBS, the government started to have a national governance function, evaluating each sector subjectively, and the dialogue between each sector and the Ministry of Finance gradually started. Also GBS helped to strengthen the public expenditure management system (PEM) such as public accounting and procurement functions [8].

According to the Paris indicators (2008), Tanzania seemed to show advancement in donor coordination through greater transparency and accountability among African countries. On the other hand, Tanzania has not really shown progress in human development and poverty reduction. This may imply that, although GBS was introduced with the aim to reduce poverty in the country, dealing with poverty reduction is a more complex issue.

One of the reasons is that, although GBS and basket funds are distributed at the council level, the capacity to plan, utilize and control the budget through the MTEF is largely lacking at the council level. Also prioritization of projects is not appropriate. These facts constrain the effective use of funds [8]. Capacity building at the council level is urgently needed.

### **6.2.3 Development Partners Group (DPG) for Health**

The Development Partners Group for Health (DPG Health) is a collection of 10+ bi-lateral and multi-lateral agencies supporting the health sector in Tanzania. The Sector Wide Approaches (SWAs), initiated in 1999 in the health sector in Tanzania, provides the framework for collaboration among the stakeholders, MOHSW, PMO-LARG, MOF, civil society and DPs. It coordinates financing, planning and monitoring mechanisms and therefore aims at creating synergies, while reducing transaction costs. According to MOHSW documents on the Health Basket Fund in 2009 [37], the total cumulated contribution of the DPG Health in 2007/08 was \$280 million, not including HIV/AIDS funding from the Global Fund, etc. Funds are provided through General Budget Support, the health basket, projects and technical assistant. In 2008, 11 DPs funded the health basket<sup>13</sup>. Those DPs were Canada, Denmark, Germany, Ireland, Netherlands, Switzerland, World Bank, UNFPA, Norway, UNICEF and a joint UN contribution. In the health sector, the health sector basket fund accelerated the health sector reforms and led to the improvement of under-five mortality rates and infant mortality rates.

#### **(1) Each DPs Situation**

As mentioned above, health funds are provided through GBS, the health basket funds, and projects funds. The main DPs' contributions are listed in the table below. The information was obtained from the website "Development Partners Group Tanzania" [37].

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<sup>13</sup> DGP Health JAST Action Plan and Monitoring Matrix- update 2008

**Table 6-2 DPs Contributions**

Country	Health Sector	HIV/AIDS	Nutrition	Water & Sanitation	Modality
Belgium		○		○	Project
Canada	○	○			GBS/ SBS
Denmark	○	○			GBS/SBS
Germany	○			○	GBS/ SBS
Ireland	○		○		SBS/CSO support
Japan	○	○			GBS/Project
Korea	○				Project
Holland	○	○			SBS/Project
Norway	○				Project
Switzerland	○	○			SBS
UK	○	○			Project
USAID	○	○		○	Project
WB	Quality of Life improvement and Social Welfare				GBS/SBS/lending
FAO		○			Project/TA
ILO		○			Project/TA
UNAIDS		○			Project/TA
UNDP		○			Project/TA
UNFPA		○			Project/TA
UNTCEF	○	○	○		Project/TA
UN Woman		○			Project/TA
WFP	○	○	○		Project/TA
WHO	○	○	○		Project/TA

Source: Development Partners Group Tanzania (Website), Dec., 2011 [37]

## 6.3 Outline of Japanese Cooperation

### 6.3.1 Overall View of Cooperation and Health Sector Cooperation

According to the Ministry of Foreign Affairs report in 2009, the cumulative funding to Tanzania was 4.2 million USD in loans, 15 million USD in grant aid, and 6.7 million USD in technical assistance. Tanzania was one of Heavily Indebted Poor Countries (HIPC); Japan reduced the debts by 1.2 million USD in 2004.

In the health sector, Japan started cooperation in the 1970s in the area of MCH, Polio eradication, provision of medical equipment, malaria control, HIV/AIDS control and so on. From 2005 to 2010, two programmes: the Health Sector Strengthening Programme and HIV/AIDS Control Programme were running in parallel, and under each programme, several projects were implemented during the period of 2005-2010. In 2010, the project for HIV/AIDS control (grant aid) was completed, since then two programmes were combined into one - which became the Health Management Capacity Development Programme (2011-2014).

**Table 6-3 Recent Japanese Aid Programmes and Projects**

Sector	Programmes/Projects
Health	<ul style="list-style-type: none"> <li>● “Morogoro Health Project (2001-2007) aiming to strengthen regional and district level health administrator’s capacity</li> <li>● “Health System Strengthening Programme” (2008-2011)aiming to strengthen regional health management and administrative capacity <ul style="list-style-type: none"> <li>- Technical Cooperation in Capacity Development for Regional Referral Health Management Project (Project)</li> <li>- Strengthening Human Resource Development for Health (TA)</li> <li>- Strengthening Development of Human Resources for Health (Project)</li> <li>- Health Systems Strengthening for HIV and AIDS Services Project (Project)</li> <li>- Activities by JOCV in health sector (JOCV)</li> <li>- Training in Japan: Health Policy, Health Administration, others (Thematic trainings, etc)</li> <li>- Third country trainings: Health Policy, Health Administration (Thematic training, etc)</li> </ul> </li> <li>● “HIV/AIDS Control Programme (2005-2010)aiming to strengthen prevention of HIV <ul style="list-style-type: none"> <li>- Project for Institutional Capacity Strengthening for HIV Prevention Focusing on Sexually Transmitted Infections (STIs) and Voluntary Counseling and Testing (VCT) Services (Project)</li> <li>- The Project for HIV/AIDS Control (Grant)</li> <li>- Training in Japan (Thematic Trainings)</li> <li>- Activities by JOCV (HIV/AIDS Control) (JOCV)</li> </ul> </li> <li>● Health Management Capacity Development Programme (2011-2014), which combined two previous programmes <ul style="list-style-type: none"> <li>- Technical Cooperation in Capacity Development for Local Government Training Phase 2 (2011-2015)</li> <li>- Strengthening Development of Human Resources for Health (2010-2014)</li> <li>- Health Systems Strengthening for HIV and AIDS Services Project (2010-2014)</li> </ul> </li> </ul>

Source: Country Assistance Program for the United Republic of Tanzania [39] and JICA Website

## Chapter 7 Priority Health Issues in Tanzania

### 7.1 Priority Health Issues

In recent years, Japanese aid strategy geared towards strengthening health management capacity at the central and regional level, and it is expected to have a big impact on strengthening the health sector performance in Tanzania. Further, considering the degree of importance and urgency in order to move towards achieving the MDGs and MKUKUTA, 4 issues related to PHC services are thought to be critical. These 4 critical issues are:

1. Strengthening efficiency of Primary Health Care (PHC) service provision
2. Strengthening Human resource development for health
3. Enforcing deployment of PHC service health facilities
4. Strengthening the management capacity at the council and facility level

Under each issue, some gaps are identified which are essential and critical, but do not yet get enough support.

#### 7.1.1 Strengthening Efficiency of Primary Health Care (PHC) Service Provision

Health centres, which are the main PHC service provider in Tanzania, constrain universal coverage of services due to their scarcity. Only 19% of wards have one health centre, the rest of wards do not have a health centre at all. Also WHO estimated that countries with less than a total of 23 physicians, nurses and midwives all together per 10,000 of the population generally fail to achieve adequate coverage rates for selected primary health care interventions as prioritized by the MDG framework. Tanzania has only 4.7 physicians, AMOs, nurses and midwives together, per 10,000 of the population, which is less than one quarter of the number needed for achieving adequate coverage of selected PHCs interventions.

On top of these shortages of health facilities and human resources at primary level health services, technical efficiency is another question. Although there is no proper study on technical efficiency<sup>14</sup> in the use of health system resources among peripheral health units in Tanzania, there is a great possibility that the scarce resources are used inefficiently at the health centres and dispensaries. It is important to focus more on the efficiency and productivity of health facilities to maximize the available resources by strengthening service provision, enforcing public private partnerships and mobilizing the community to participate more in health services.

#### 7.1.2 Strengthening Human Resource Development for Health

In order to improve the technical efficiency and quality of health services at all levels, it is important to strengthen human resource development capacity. The ongoing JICA project “Strengthening Development of Human Resources for Health (2010-2014)” is an effective project for this purpose. Moreover, the following are important areas of concern:

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<sup>14</sup> Technical efficiency refers to the physical relation between resources (capital and labour) and health outcome. Technical efficiency can be estimated by applying the Data Envelopment Analysis (DEA)

## (1) Support on Human Resource Development (HRD) Policy Formulation

In order to accelerate human resource development (HRD) for health in Tanzania, several HRD policies need to be formulated and implementations enforced. These critical HRD policies are: equity in distribution of human resources, optimizing skills mix, and controlling the brain drain of medical professionals. Formulation of incentive packages for those health workers deployed in remote rural areas is a long term concern. The project “Strengthening Development of Human Resources for Health 2010-2014” supported by JICA has been developing the Human Resource for Health Information System (HRHIS)-Training Institution Information System (TIIS) System which contributes to both the formulation of HRHSP and HRH policies. It is also important to support the MOHSW by assisting formulation of relevant laws and regulations, however, the implementation of such policies should be monitored by the HRHIS-TIIS system to see the effectiveness of the policy change.

## (2) Continuous Professional Education: CPE for Health Workers

Quality improvement on the technical side among health workers would have a big impact on the improvement of PHC service quality. Supportive supervision and coaching from supervisors to health workers at the PHC health facilities need to be given routinely. Also in-service training based on the needs of health workers at the local level and continuous professional education should function as a system to improve technical capacity.

Pre-education of the health workforce has a number of issues such as shortage of quality and quantity of teachers/lectures, poor educational facilities at each school/institution, and the problem of taking too long for recruitment and deployment. It is important to have a longer perspective to improve the capacity of educational institutions.

### **7.1.3 Deployment Plan of the Primary Level Health Facilities**

The issue of health facilities is not only their quantity but also aging of health facilities is becoming a big issue. PHSDP 2007-2017 plans for the renovation of existing health facilities and the construction of new ones, so as to have a dispensary in each village and a health centre in each ward, as well as improving the outreach services. However, important questions to be answered are: if the function required is dispensary function or health centre function, how should the health facilities be located to enhance the spatial efficiency? Whether or not, human resource development can keep up with the speed of facility development? Also, how can the government meet the requirement of equipment, medicines and health commodities to make new health facilities functional? It would be desirable to formulate a deployment plan for health facilities which incorporates all the concerns mentioned above.

### **7.1.4 Strengthening the Management Capacity at the Council and Facility Level**

A recent JICA technical assistance project on strengthening the regional health management capacity have been dealing with an important issue in the management capacity at provincial and district level. In addition, it is also important to develop or strengthen capacity at lower level, especially at the council and facility level, in collaboration with local health boards.



**(1) Strengthening the Management Capacity at the Council and Facility Level**

Although the capacity of CHMT has shown progress in decentralizing planning, budgeting and management of health services at council level, management capacity at the facility level also needs to be strengthened in order to raise the coverage and quality of services. Insufficient quality and quantity of health services, malfunction of referral system as well as irrational prioritization of health problems in an area undermine the health outputs and outcomes in Tanzania. In order to enforcing quality and quantity of the primary health care services, the institutional supporting bodies such as Council Health Service Boards and Hospital Governing Committees need to be strengthened and empowered. Also, at the lower level institutions like Ward/Village Health Committees need to be strengthened its function and capacity.

**(2) Decentralizing Financial Responsibility Down to the Primary Health Facility Level**

If the lowest level managers have their own funds locally, they are spent more effectively than when managed at council level. While this view is consistent with the general thrust of D-by-D, in the health sector, it should probably be linked to the establishment of some form of results-based financing and strengthened mechanisms to ensure that quality is being delivered and the possibility to misuse funds is minimized.

# ATTACHMENTS

Attachment 1: Major Health Indicators

Attachment 2: References

# Attachment 1: Major Health Indicators (United Republic of Tanzania)

United Republic of Tanzania			MDGs	Sources	1990	2000	Latest	Latest year	Latest in Region	(Latest year)	Region	
0 General Information	0.1 Demography	0.1.01	Population, total		WDI	25,478,979	34,038,161	44,841,226	2010	853,434,000	(2010)	Sub-Saharan Africa (developing only)
		0.1.02	Population growth (annual %)		WDI	3.2	2.5	3.0	2010	2.5	(2010)	Sub-Saharan Africa (developing only)
		0.1.03	Life expectancy at birth, total (years)		WDI	50.6	50.4	56.6	2009	54.3	(2010)	Sub-Saharan Africa (developing only)
		0.1.04	Birth rate, crude (per 1,000 people)		WDI	43.9	41.6	41.5	2009	37.4	(2010)	Sub-Saharan Africa (developing only)
		0.1.05	Death rate, crude (per 1,000 people)		WDI	14.9	14.3	10.9	2009	12.8	(2010)	Sub-Saharan Africa (developing only)
		0.1.06	Urban population (% of total)		WDI	18.9	22.3	26.4	2010	37.4	(2010)	Sub-Saharan Africa (developing only)
	0.2 Economic Development Condition	0.2.01	GNI per capita, Atlas method (current US\$)		WDI	200	300	530	2010	1,188.5	(2010)	Sub-Saharan Africa (developing only)
		0.2.02	GNI growth (annual %)		WDI		5.1	7.3	2010	4.1	(2010)	Sub-Saharan Africa (developing only)
		0.2.03	Total enrollment, primary (% net)	2.1	WDI	51.4	53.0	96.7	2009	76.3	(2009)	Sub-Saharan Africa (developing only)
		0.2.04	Ratio of female to male primary enrollment (%)	3.1	WDI	98.7	98.7	101.6	2010	91.6	(2009)	Sub-Saharan Africa (developing only)
		0.2.05	Literacy rate, adult total (% of people ages 15 and above)		WDI			72.9	2009	62.3	(2009)	Sub-Saharan Africa (developing only)
		0.2.06	Human Development Index		HDR	0.27	0.44	0.47	2011	0.46	(2011)	Sub-Saharan Africa
		0.2.07	Human Development Index (rank)		HDR	126 / 160	151 / 173	152 / 187	2011			
0.2.08	Poverty gap at \$1.25 a day (PPP) (%)		WDI		41.6	28.1	2007	20.6	(2008)	Sub-Saharan Africa (developing only)		
0.3 Water and Sanitation	0.3.01	Improved water source (% of population with access)	7.8	HNP Stats	55	54	54	2008	61.1	(2010)	Sub-Saharan Africa (developing only)	
	0.3.02	Improved sanitation facilities (% of population with access)	7.9	HNP Stats	24	24	24	2008	30.6	(2010)	Sub-Saharan Africa (developing only)	
1 Health Status of People	1.1 Mortality and Morbidity	1.1.01	Age-standardized mortality rate by cause (per 100,000 population) - Communicable		GHO			782	2008	798	(2008)	Africa
		1.1.02	Age-standardized mortality rate by cause (per 100,000 population) - Noncommunicable		GHO			745	2008	779	(2008)	Africa
		1.1.03	Age-standardized mortality rate by cause (per 100,000 population) - Injuries		GHO			120	2008	107	(2008)	Africa
		1.1.04	Cause of death, by communicable diseases and maternal, prenatal and nutrition conditions (% of total)		HNP Stats			65.5	2008	64.6	(2008)	Sub-Saharan Africa (developing only)
		1.1.05	Cause of death, by non-communicable diseases (% of total)		HNP Stats			26.6	2008	28.3	(2008)	Sub-Saharan Africa (developing only)
		1.1.06	Cause of death, by injury (% of total)		HNP Stats			7.9	2008	7.1	(2008)	Sub-Saharan Africa (developing only)
		1.1.07	Distribution of years of life lost by broader causes (%) - Communicable		GHO			78	2008	78	(2008)	Africa
		1.1.08	Distribution of years of life lost by broader causes (%) - Noncommunicable		GHO			13	2008	15	(2008)	Africa
		1.1.09	Distribution of years of life lost by broader causes (%) - Injuries		GHO			8	2008	7	(2008)	Africa
	1.2 Maternal and Child Health	1.2.01	Maternal mortality ratio (modeled estimate, per 100,000 live births)	5.1	MDGs	880	920	790	2008	650	(2008)	Sub-Saharan Africa (developing only)
		1.2.02	Adolescent fertility rate (births per 1,000 women ages 15-19)	5.4	MDGs		132.5	129.7	2009	110.2	(2009)	Sub-Saharan Africa (developing only)
		1.2.03	Mortality rate, under-5 (per 1,000)	4.1	MDGs	154.8	130.2	75.8	2010	121.2	(2010)	Sub-Saharan Africa (developing only)
		1.2.04	Mortality rate, infant (per 1,000 live births)	4.2	MDGs	95.2	80.5	50.0	2010	76.4	(2010)	Sub-Saharan Africa (developing only)
		1.2.05	Low-birthweight babies (% of births)		HNP Stats			9.5	2005	13.7	(2009)	Sub-Saharan Africa (developing only)
		1.2.06	Fertility rate, total (birth per woman)		HNP Stats	6.2	5.7	5.6	2009	5.0	(2009)	Sub-Saharan Africa (developing only)
	1.3 Infectious Diseases	1.3.01	a) Prevalence of HIV, male (% ages 15-24)	6.1	MDGs			3.9	2009	3.8	(2009)	Sub-Saharan Africa (developing only)
			b) Prevalence of HIV, female (% ages 15-24)	6.1	MDGs			1.7	2009	1.6	(2009)	Sub-Saharan Africa (developing only)
		1.3.02	Notified cases of malaria per 100,000 population	6.6	MDGs Database			24,088	2008			
		1.3.03	a) Malaria death rate per 100,000 population, all ages	6.6	MDGs Database			84	2008	96	(2009)	Sub-Saharan Africa
			b) Malaria death rate per 100,000 population, ages 0-4	6.6	MDGs Database			68	2008	519	(2009)	Sub-Saharan Africa
		1.3.04	Tuberculosis prevalence rate per 100,000 population (mid-point)	6.9	MDGs Database	303	233	183	2010	479	(2009)	Sub-Saharan Africa
		1.3.05	Incidence of tuberculosis (per 100,000 people)	6.9	MDGs	226	236	183	2009	342	(2009)	Sub-Saharan Africa (developing only)
		1.3.06	Tuberculosis death rate (per 100,000 people)	6.9	MDGs	33	16	11	2009	51	(2009)	Sub-Saharan Africa (developing only)
		1.3.07	Prevalence of HIV, total (% of population ages 15-49)		HNP Stats	4.8	7.3	5.6	2009	5.5	(2009)	Sub-Saharan Africa (developing only)
		1.3.08	AIDS estimated deaths (UNAIDS estimates)		HNP Stats	21,000	110,000	86,000	2009			
	1.3.09	HIV incidence rate, 15-49 years old, percentage (mid-point)		MDGs Database	1.34	0.66	0.45	2009	0.4	(2009)	Sub-Saharan Africa	
	1.3.10	Partial Prioritization Score by the Global Fund (HIV)		GF			10	2012				
		Partial Prioritization Score by the Global Fund (Malaria)		GF			10	2012				
		Partial Prioritization Score by the Global Fund (TB)		GF			12	2012				
1.4 Nutrition	1.4.01	Prevalence of wasting (% of children under 5)		HNP Stats			3.5	2005	11.3	(2009)	Sub-Saharan Africa (developing only)	
2 Service Delivery	2.1 Maternal and Child Health	2.1.01	Births attended by skilled health personnel, percentage	5.2	MDGs Database			50.6	2010	46.0	(2009)	Sub-Saharan Africa
		2.1.02	Birth by caesarian section		GHO			3.2	2005	3.5	(2011)	Africa
		2.1.03	Contraceptive prevalence (% of women ages 15-49)	5.3	MDGs			34.4	2010	21.0	(2009)	Sub-Saharan Africa (developing only)
		2.1.04	Pregnant women receiving prenatal care (%)	5.5	HNP Stats			75.8	2008	71.0	(2009)	Sub-Saharan Africa (developing only)
		2.1.05	Pregnant women receiving prenatal care of at least four visits (% of pregnant women)	5.5	HNP Stats			61.5	2005	44.0	(2009)	Sub-Saharan Africa (developing only)
		2.1.06	Unmet need for family planning, total, percentage	5.6	MDGs Database			21.8	2005	24.8	(2008)	Sub-Saharan Africa
		2.1.07	1-year-old children immunized against: Measles	4.3	Childinfo	80	78	92	2010	75	(2010)	Sub-Saharan Africa
		2.1.08	1-year-old children immunized against: Tuberculosis		Childinfo	85	86	99	2010	84	(2010)	Sub-Saharan Africa
		2.1.09	a) 1-year-old children immunized against: DPT (percentage of infants who received their first dose of diphtheria, pertussis and tetanus vaccine)		Childinfo	92	92	98	2010	85	(2010)	Sub-Saharan Africa
			b) 1-year-old children immunized against: DPT (percentage of infants who received three doses of diphtheria, pertussis and tetanus vaccine)		Childinfo	78	79	91	2010	77	(2010)	Sub-Saharan Africa
		2.1.10	1-year-old children immunized against: Polio		Childinfo	78	64	94	2010	79	(2010)	Sub-Saharan Africa
	2.1.11	Percentage of infants who received three doses of hepatitis B vaccine		Childinfo			91	2010	74	(2010)	Sub-Saharan Africa	
	2.2 Infectious Diseases	2.2.01	Condom use with non regular partner, % adults (15-49), male	6.2	MDGs			23.6	2010			
		2.2.02	Condom use with non regular partner, % adults (15-49), female	6.2	MDGs			27.2	2010			

## Attachment 1: Major Health Indicators (United Republic of Tanzania)

United Republic of Tanzania				MDGs	Sources	1990	2000	Latest	Latest year	Latest in Region	(Latest year)	Region		
2.2	2.2.03	Men 15-24 years old with comprehensive correct knowledge of HIV/AIDS, percentage	6.3	MDGs Database				41.5	2008	33	(2005-2010)	Sub-Saharan Africa		
		Women 15-24 years old with comprehensive correct knowledge of HIV/AIDS, percentage	6.3	MDGs Database				39.2	2008	26	(2005-2010)	Sub-Saharan Africa		
		Ratio of school attendance of orphans to school attendance of non-orphans aged 10-14 years	6.4	MDGs Database				0.97	2008	0.92	(2005-2010)	Sub-Saharan Africa		
		Use of insecticide-treated bed nets (% of under-5 population)	6.7	HNP Stats				63.8	2010	34.0	(2009)	Sub-Saharan Africa (developing only)		
		Children under 5 with fever being treated with anti-malarial drugs, percentage	6.8	MDGs Database				59.1	2010	36	(2008-2010)	Sub-Saharan Africa		
		Tuberculosis treatment success rate under DOTS, percentage	6.10	MDGs Database		78		88	2008	80	(2008)	Sub-Saharan Africa		
		Antiretroviral therapy coverage (% of people with advanced HIV infection)	6.5	MDGs				30.0	2009					
		People aged 15 years and over who received HIV testing and counselling, estimated number per 1,000 adult population		GHOR				103.1	2010					
		Testing and counselling facilities, estimated number per 100,000 adult population		GHOR				10.7	2010					
		Pregnant women tested for HIV, estimated coverage (%)		GHOR				86	2010					
		Percentage of HIV-infected pregnant women who received antiretroviral drugs to reduce the risk for mother-to-child transmission (Mid point)	6.5	MDGs Database				70	2009					
		Tuberculosis case detection rate (all forms)		HNP Stats	39.0	68.0		77.0	2010	60	(2010)	Sub-Saharan Africa (developing only)		
		Tuberculosis treatment success rate (% of registered cases)	6.1	MDGs		78.0		88.0	2009	79	(2009)	Sub-Saharan Africa (developing only)		
		2.3 Nutrition	2.3.01	Vitamin A supplementation coverage rate (% of children ages 6-59 months)		HNP Stats				94.0	2010	85.8	(2010)	Sub-Saharan Africa (developing only)
				Consumption of iodized salt (% of households)		HNP Stats				43.0	2005	49.8	(2010)	Sub-Saharan Africa (developing only)
2.4 Quality and Coverage	2.4.01	Estimate of health formal coverage		ILO				14.5		11.6		Countries of Very high vulnerability		
		Population not covered (%) due to financial resources deficit		ILO				91.5		85.8		Countries of Very high vulnerability		
		Population not covered (%) due to professional health staff deficit		ILO				91.1		74.6		Countries of Very high vulnerability		
3 Health System	3.1 Human Resources	3.1.01 Physicians (per 1,000 people)		HNP Stats				0.01	2006	0.2	(2010)	Sub-Saharan Africa (developing only)		
		3.1.02 Midwives (per 1,000 people)		HNP Stats				0.07	2003					
		3.1.03 Nurses (per 1,000 people)		HNP Stats				0.30	2002					
		3.1.04 Dentistry personnel density (per 10,000 population)		GHO				0.06	2006	0	(2007)	Africa		
		3.1.05 Density of pharmaceutical personnel (per 10,000 population)		GHO				0.02	2006	1.0	(2007)	Africa		
	3.2 Health Financing	3.2.01	Health expenditure, total (% of GDP)		HNP Stats		3.8		5.1	2009	6.5	(2010)	Sub-Saharan Africa (developing only)	
			Health expenditure, public (% of total health expenditure)		HNP Stats		43.4		73.6	2009	45.1	(2010)	Sub-Saharan Africa (developing only)	
			Health expenditure, private (% of total health expenditure)		HNP Stats		56.6		26.4	2009	54.9	(2010)	Sub-Saharan Africa (developing only)	
			Out-of-pocket health expenditure (% of private expenditure on health)		HNP Stats		83.5		65.1	2009	64.7	(2010)	Sub-Saharan Africa (developing only)	
			Health expenditure, public (% of government expenditure)		HNP Stats		9.1		18.1	2009	10.0	(2005)	Sub-Saharan Africa (developing only)	
			External resources for health (% of total expenditure on health)		HNP Stats		27.8		56.5	2009	10.5	(2010)	Sub-Saharan Africa (developing only)	
			Social security expenditure on health as a percentage of general government expenditure on health		GHO				3.3	2009	7	(2009)	Africa	
			a) Health expenditure per capita (current US\$)		HNP Stats		10.1		25.3	2009	84.3	(2010)	Sub-Saharan Africa (developing only)	
	b) Per capita total expenditure on health (PPP int. \$)		GHO		28		68	2009	157	(2009)	Africa			
	3.2.09	Per capita government expenditure on health at average exchange rate (US\$)		GHO			19	2009	41	(2009)	Africa			
3.3 Facilities, Equipments and Supplies	3.3.01	a) Median availability of selected generic medicines (%) - Public		GHO			23.4	2004						
		b) Median availability of selected generic medicines (%) - Private		GHO			47.9	2004						
		a) Median consumer price ratio of selected generic medicines - Public		GHO			1.3	2004						
b) Median consumer price ratio of selected generic medicines - Private		GHO			2.7	2004								
3.3.03	Hospital beds (per 1,000 population)		HNP Stats	1.0		0.7	2010	1.2	(1990)	Sub-Saharan Africa (developing only)				

WDI: World Development Indicators & Global Development Finance (<http://databank.worldbank.org/ddp/home.do>) (Accessed 05/2012)

HDR: Human Development Reports (<http://hdr.undp.org/>) (Accessed 05/2012)

HNP Stats: Health Nutrition and Population Statistics (<http://databank.worldbank.org/ddp/home.do>) (Accessed 05/2012)

GF: Global Fund eligibility list for 2012 funding channels, the Global Fund to Fight AIDS, Tuberculosis and Malaria (<http://www.theglobalfund.org/en/application/applying/ecfp/>) (Accessed 05/2012)

GHO: Global Health Observatory Country Statistics (<http://www.who.int/gho/countries/en/>) (Accessed 05/2012)

GHOR: Global Health Observatory Repository (<http://apps.who.int/ghodata/>) (Accessed 05/2012)

MDGs: Millennium Development Goals (<http://databank.worldbank.org/ddp/home.do>) (Accessed 05/2012)

MDG database: Millennium Development Goals Indicators (<http://mdgs.un.org/unsd/mdg/>) (Accessed 05/2012). Regional data is available on The Millennium Development Goals Report Statistical Annex 2011 (United Nations).

Childinfo: Childinfo UNICEF (<http://www.childinfo.org/>) (Accessed 05/2012)

ILO: World Social Security Report 2010/11: Providing coverage in times of crisis and beyond. International Labour Office Geneva: ILO 2010.

1.3.10 Partial Prioritization Score is composed of the income level score for the country and the disease burden score for the particular disease in the country. The minimum score is 3 and the maximum score is 12.

2.4.01 Estimate of health formal coverage is indicated as percentage of population covered by state, social, private, company-based, trade union, mutual and other health insurance scheme.

2.4.02 Population not covered (%) due to financial resources deficit (based on median value in low-vulnerability group of countries) uses the relative difference between the national health expenditure in international \$ PPP (excluding out-of-pocket) and the median density observed in the country group with low levels of vulnerability as a benchmark for developing countries. The rate can be calculated using the following formula:

Per capita health expenditure not financed by private households' out-of-pocket payments (PPP in int. \$) [A]

Population (in thousands) total [B]

Total health expenditure not financed by out of pocket in int. \$ PPP (thousands) [C = A x B]

Population covered by total health expenditure not financed by out-of-pocket if applying Benchmark\* (thousands) [D = C ÷ Benchmark]\*\*

Percentage of the population not covered due to financial resources deficit (%) [F = (B - D) ÷ B x 100]

\*Benchmark: Total health expenditure not financed by out-of-pocket per capita = 350 international \$ PPP.

\*\*This formula was partially modified from the original in the source to suit an actual calculation.

2.4.03 Population not covered (%) due to professional health staff deficit uses as a proxy the relative difference between the density of health professionals in a given countries and its median value in countries with a low level of vulnerability. The rate can be calculated using the following formula:

Total of health professional staff [A = B + C]

Number of nursing and midwifery personnel [B]

Number of physicians [C]

Total population (in thousands) [D]

Number of health professional per 10,000 persons [F = A ÷ D x 10]

Total population covered if applying Benchmark\* (thousands) [E = A ÷ Benchmark x 10]

Percentage of total population not covered due to health professional staff deficit [G = (D - E) ÷ D x 100]

Benchmark: 40 professional health staff per 10,000 persons.

## Attachment 2 : References (United Republic of Tanzania)

	TITLE	AUTHOR	URL	YEAR
1	The State of the World's Children Reports, Basic Indicators 【In Japanese】	UNICEF	<a href="http://www.unicef.or.jp/library/librariy_wdb.html">http://www.unicef.or.jp/library/librariy_wdb.html</a>	2011
2	Country Cooperation Strategy 2010-2015	World Health Organization	<a href="http://www.afro.who.int/en/tanzania/country-cooperation-strategy.html">http://www.afro.who.int/en/tanzania/country-cooperation-strategy.html</a>	2009
3	International Human Development Indicators-Tanzania	United Nations Development Programme	<a href="http://hdr.undp.org/en/humandev/">http://hdr.undp.org/en/humandev/</a>	2011
4	Poverty and Human Development Report	The Research and Analysis working group	<a href="http://hdr.undp.org/en/reports/nationalreports/africa/tanzania/name,3389,en.html">http://hdr.undp.org/en/reports/nationalreports/africa/tanzania/name,3389,en.html</a>	2005
5	Poverty Reduction Slow Despite Economic Growth	McGregor et al., Inter Press Service News Agency		2008
6	National Strategy for Growth and Reduction of Poverty II (2011-2014)	Ministry of Finance and Economic Affairs, URT	<a href="http://planipolis.iiep.unesco.org/formats/liste1_en.php?Chp2=Tanzania+UR">http://planipolis.iiep.unesco.org/formats/liste1_en.php?Chp2=Tanzania+UR</a>	2010
7	Health Sector Strategic Plan III 2009-2015	Ministry of Health and Social Welfare, URT	<a href="http://www.actor-atlas.info/national-actor:tz-ministry-of-health-and-social-welfare">http://www.actor-atlas.info/national-actor:tz-ministry-of-health-and-social-welfare</a>	2009
8	Country Assistance Program for the United Republic of Tanzania 【In Japanese】	Ministry of Foreign Affairs of Japan		2008
9	NCD Country Profiles-Tanzania	World Health Organization	<a href="http://www.who.int/nmh/publications/ncd_profiles2011/en/index.html">http://www.who.int/nmh/publications/ncd_profiles2011/en/index.html</a>	2011
10	Millennium Development Goals Report: Mid-Way Evaluation: 2000-2008	United Republic of Tanzania		2008
11	Tanzania Demographic and Health Survey 2010	National Bureau of Statistics and ICF Macro	<a href="http://www.measuredhs.com/data/available-datasets.cfm">http://www.measuredhs.com/data/available-datasets.cfm</a>	2011
12	Tanzania County Report on the Millennium Development Goals 2010	United Republic of Tanzania		2011
13	Global Health Observatory Data Repository, Country Statistics Tanzania	World Health Organization	<a href="http://apps.who.int/ghodata/">http://apps.who.int/ghodata/</a>	2011
14	Country Profile, Maternal, Newborn, & Child Survival	UNICEF	<a href="http://www.childinfo.org/profiles_973.htm">http://www.childinfo.org/profiles_973.htm</a>	2011
15	Tanzania HIV/AIDS and Malaria Indicator Survey 2003-2004	Tanzania Commission for AIDS (TACAIDS), Zanzibar AIDS Commission (ZAC), National Bureau of Statistics (NBS), office of the Chief Government Statistician (OCGS) and Macro International, Inc.	<a href="http://www.nbs.go.tz/tnada/index.php/catalog/6">http://www.nbs.go.tz/tnada/index.php/catalog/6</a>	2004
16	Tanzania HIV/AIDS and Malaria Indicator Survey 2007-2008	Tanzania Commission for AIDS (TACAIDS), Zanzibar AIDS Commission (ZAC), National Bureau of Statistics (NBS), Office of the Chief	<a href="http://www.tacaids.go.tz/hiv-and-aids-information/about-hiv-and-aids.html">http://www.tacaids.go.tz/hiv-and-aids-information/about-hiv-and-aids.html</a>	2008

## Attachment 2 : References (United Republic of Tanzania)

	TITLE	AUTHOR	URL	YEAR
		Government Statistician (OCGS) and Macro International, Inc		
17	World Report 2011: Global Tuberculosis Control	World Health Organization	<a href="http://www.hrw.org/world-report-2011">http://www.hrw.org/world-report-2011</a>	2011
18	World Malaria Report	World Health Organization	<a href="http://www.who.int/malaria/world_malaria_report_2010/en/index.html">http://www.who.int/malaria/world_malaria_report_2010/en/index.html</a>	2010
19	Tanzania Malaria Programme Review 2010	National Malaria Control Programme, MOHSW		2010
20	Recent Developments and Achievements in Malaria Control in Tanzania (Mainland), Presentation Material	Mandike et al., National Malaria Control Program, MOHSW		2010
21	Risk Factors for Non Communicable Diseases among Semi-Rural Adults and the Association of These Factors with Socio Demographic Variables: Findings from the WHO Steps Survey in Kilolo District, Iringa, Tanzania.	J Mghamba et al.		2007
22	Primary Health Service Development Programme (PHSDP) 2007-2017	Ministry of Health and Social Welfare, URT		2007
23	Tanzania National Health Accounts (NHA) Year 2002/3 and 20005/6	World Health Organization	<a href="http://www.who.int/nha/country/tza/en/">http://www.who.int/nha/country/tza/en/</a>	2006
24	HIV and AIDS in Tanzania	National AIDS control Program, MOHSW	<a href="http://www.tanzania.go.tz/hiv_aids.html">http://www.tanzania.go.tz/hiv_aids.html</a>	2011
25	11th Joint Annual Health Sector Review	MOHSW		2010
26	Mainland and MOFSW Zanzibar. Tanzania Service Availability Mapping 2005-2006	Ministry of Health and Social Welfare, Tanzania Mainland and Ministry of Health and Social Welfare, Zanzibar		2007
27	World Health Statistics 2011, Indicator compendium	World Health Organization	<a href="http://www.who.int/gho/indicator_registry/en/">http://www.who.int/gho/indicator_registry/en/</a>	2011
28	Human Resource for Health Strategic Plan 2008-2013	Ministry of Health and Social Welfare, URT		2008
29	Proposal for a Tanzania Health Workforce Initiative, Draft 3	Canadian International Development Agency		2009
30	Bypassing Health Centers in Tanzania: Revealed Preferences for Observable and Unobservable Quality	Oxford University Press		2002
31	Health Sector Joint External Evaluation Report in Tanzania, 1999-2006	Ministry of Foreign Affairs of Denmark	<a href="http://www.oecd.org/publicationanddocumentsbycategory/0,3469,en_35038640_35039620_1_35170118_1_6_1,00.html">http://www.oecd.org/publicationanddocumentsbycategory/0,3469,en_35038640_35039620_1_35170118_1_6_1,00.html</a>	2006
32	Terminal Evaluation Report for the Technical Cooperation in Capacity Development for Regional Referral Health Management (Draft)【In Japanese】	JICA		2010

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	TITLE	AUTHOR	URL	YEAR
33	Summary of the analysis of annual comprehensive council health plans (CCHPs) 2011/12	MOHSWPMO-RALG		2011
34	Review Report on General Budget Support (Tanzania PRBS • Vietnam PRSC) 【In Japanese】	Ministry of Foreign Affairs of Japan	<a href="http://www.mofa.go.jp/mofaj/gaiko/oda/shiryo/hyouka/kunibetu/gai/ip_zaimu/sk05_01_index.html">http://www.mofa.go.jp/mofaj/gaiko/oda/shiryo/hyouka/kunibetu/gai/ip_zaimu/sk05_01_index.html</a>	2006
35	Public Expenditure Review 2010	World Bank	<a href="http://documents.worldbank.org/curated/en/2011/09/15368323/united-republic-tanzania-public-expenditure-review-2010">http://documents.worldbank.org/curated/en/2011/09/15368323/united-republic-tanzania-public-expenditure-review-2010</a>	2011
36	Health Spending in Tanzania, The impact of current AID structures and AID effectiveness.	German Foundation for World Population (DSW)		2010
37	Development Partners Group Tanzania	Development Partners Group Tanzania	<a href="http://www.tzdp.org.tz/">http://www.tzdp.org.tz/</a>	2012
38	Aid Effectiveness and General Budget Support in Tanzania	Darlene, K. Mutalemwa et al.		2009
39	Country Assistant Strategy for the United Republic of Tanzania 【In Japanese】	JICA		2009
40	Report of the Group of Independent Advisers on Development Cooperation Issues between Tanzania and Its Aid Donors	Royal Danish Ministry of Foreign Affairs		1995