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# Review of the State of Health in Tanzania 2004

28 April 2005

**Independent Technical Review on behalf of the Ministry of Health,  
the President's Office Regional and Local Government and the Government of  
Tanzania**

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## 1. Abbreviations and Acronyms

AIDS	Acquired Immune Deficiency Syndrome
AMMP	Adult Morbidity and Mortality Project
AMO	Assistant Medical Officers
APTHA	Association of Private Hospitals in Tanzania
ARC	AIDS Related Complex
ARI	Acute Respiratory Infection
BCG	Bacille Calmette-Guerrin
CCHP	Comprehensive Council Health Plan
CHF	Community Health Fund
CMR	Child Mortality Rate
CSPD	Child Survival Programme Development
DANIDA	Danish International Development Agency
DFID	Department for International Development
DED	District Executive Director
DHS	Demographic and Health Survey
DMO	District Medical Officer
DPLO	District Planning Officer
DPT	Diphtheria Pertussis Tetanus
DT	District Treasurer
GAVI	Global Alliance for Vaccines and Immunization
GFATM	Global Fund to fight HIV/AIDS, Tuberculosis and Malaria
GoT	Government of Tanzania
GSK	GlaxoSmithKline
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit
HBS	Household Budget Survey
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
HSPS	Health Sector Programme Support
HSSP	Health Sector Strategic Plan
IMCI	Integrated Management of Childhood Illnesses
IMR	Infant Mortality Rate
ITN	Insecticide Treated Net
LB	Live birth
LGA	Local Government Authority
LF	Lymphatic Filariasis
MCH	Mother and Child Health
MDA	Mass Drug Administration (in the context of LF-control)
MDGs	Millennium Development Goals
MNCH	Maternal, Newborn and Child Health
MoF	Ministry of Finance
MoH	Ministry of Health
MTEF	Medium Term Expenditure Framework
MUCHS	Muhimbili University College of Health Sciences
NACP	National AIDS Control Programme
NHIF	National Health Insurance Fund
NIMR	National Institute for Medical Research
NSS	National Sentinel Sites
NTLP	National Tuberculosis and Leprosy Programme
OPD	Out Patient Department
PER	Public Expenditure Review
PMTCT	Prevention of Mother to Child HIV Transmission
PORALG	Presidents' Office Regional Administration and Local Government
PPP	Public Private Partnership
PRS	Poverty Reduction Strategy
R&AWG	Research and Analysis Working Group
RCH	Reproductive and Child Health
RMO	Regional Medical Officer
SCIH	Swiss Centre for International Health®
SDC	Swiss Agency for Development and Cooperation
STI	Sexually Transmitted Infection
SWAp	Sector Wide Approach
TBA	Traditional Birth Attendants
TEHIP	Tanzania Essential Health Interventions Project
UNICEF	United Nations Children's Fund
U-5MR	Under five Mortality Rate
URT	United Republic of Tanzania
USAID	United States Agency for International Development
WB	World Bank
WHO	World Health Organization
WHR	World Health Report

## 2. Acknowledgements

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Last, but not least we would like to thank to the numerous stakeholders and development partners, who are listed in an annex of this report, and who gave us their valuable time and shared their views so freely with us.

We are looking forward to discussing the details of the report during the upcoming joint health sector review meeting on 4 April 2005.

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### 3. Executive Summary

**Introduction:** The Ministry of Health has mandated an independent review of the State of Health in Tanzania for the year 2004. The objective was to provide an overview on the health situation in Tanzania, to assess if there have been improvements in public health service delivery, to comment on the Tanzanian's perception of health services, discuss equity in accessing health care, to identify successes and challenges and to provide suggestions for improvements. An international and a national consultant were assigned to undertake the review.

**Methodology:** The methodology was to utilise existing documented data and other available information. The list of documents consulted, not always quoted, is in the annexe. In terms of understanding changes in health status, there were few reliable and recent data available at national level. Consequently the consultants were left with data, most of which had already been used in the 2001 review. Main "new" data sources compared to the 2001 State of Health Review were the 2002 Census, data from National Sentinel Sites and recently an in-depth study has been undertaken in 10 districts of Tanzania, as well as the first representative sero-survey published by TACAIDS in 2004. To obtain additional qualitative information 51 interviews with stakeholders were conducted.

**Findings, health situation:** Health has many determinants, and only a few of these are directly influenced by the health care delivery system. As for the underlying determinants of health, unfortunately many crucial factors in Tanzania have not changed for the better since the last review. Most importantly, poverty is still rampant. Also, the negative consequences of poor school enrolment of girls in the past are only becoming visible as now, as these girls have become women and poor female education is a known determinant of infant health. The fact that the HMIS reports a slight decline in of maternal deaths reported in hospitals does unfortunately not mean that there is really less mortality, because a large proportion of deliveries, particularly in rural areas do not take place in health facilities, and even there skilled assistance is not guaranteed. The close relationship between the density of skilled staff and maternal mortality and the absence of skilled staff in rural areas make it unlikely that the high maternal mortality figures have declined since 2001.

The HIV/AIDS prevalence, which was published for the first time in a nationwide representative sample in 2004 is comforting in the sense that the results – a 7% prevalence in the reproductive age group – are lower than feared, on the basis of the surveillance of blood donors. Although 7% (with considerable variation within the country, age groups and sex) is still high and rates HIV/AIDS as a leading cause of mortality of adults for years to come. A widely neglected issue in this context is the increasing number of HIV/AIDS orphans, their number already getting close, if not above 1'000'000. Exact figures are not available. Although this is as much a social as a health problem, the potential negative impact on the health status of these children and adolescents is obvious.

A number of health problems do receive only limited attention. A recent study revealed that in at least one of every ten households there is one case of disability. Non-communicable diseases are on the increase and epidemiological transition is most certainly a reality, at least in urban areas.

Infant mortality is internationally used to compare the health and well-being of populations across and within countries. The 2002 census data show overall minimal changes for the better. In particular the wide range between Arusha (58/1'000 LB) and Lindi (217/1'000) has not changed. However, there are some encouraging improvements in national sentinel and project sites in terms of reduced IMR/CMR/U-5MR and even maternal mortality, it is at this point in time impossible to tell if the health status of Tanzanians has substantially improved since the last review and one will have to wait for the results of the DHS 2005 to see if the long-term trend of a declining IMR/CMR/U-5MR, which has started in 1978, has continued.

**Findings, health service delivery:** The data availability is better as far as the health systems input situation is concerned, as annual reviews both for health sector performance as well as for the overarching goal of poverty reduction are taking place. There is a wide consensus amongst directly involved stakeholders and development partners that the performance of the health system has improved, although it is still a patchy progress. It is obvious that the funding situation has improved substantially, although it is still far away from the recommended figures by the Macroeconomic Commission on Health. The human resource crisis is becoming increasingly urgent, particularly in the context of starting scale-up of ARV treatment and also in terms of reaching skilled birth attendance targets, which will require a substantial increase in human resources for health. Little is known about the professional quality of care, but misdiagnosing of severe malaria seems to be common, and might be only the tip of the iceberg, possibly hiding a dark picture.

**Findings, people's perception:** Findings are not conclusive. A recent study in ten districts found very high positive approval, even though certain complaints were documented. These results are in stark contrast to other studies, which paint a rather bleak image of user-unfriendly health services, where corruption is not uncommon.

**Findings, equity:** Policies are in place to promote equity in accessing health care, but reality still has a long way to go before reaching the ambitious goals. Exemption schemes are far from being functional and there is evidence that the poor have difficulties in accessing health facilities. There is also ample evidence of gender imbalances, such as early childbearing, early onset of sexual activity and early marriages, Female Genital Mutilation is widespread, and despite being unlawful the practice to force pregnant girls out of school is frequent.

**Successes:** There are numerous achievements of the health care delivery system. This review could not deliver a ranking of successes, but just highlight on the basis of stakeholders and development partners' comments a few success stories: TB-control programme is a success, IMCI has shown impact and the potential for rapid gains in survival rates. In general terms the planning capacity of the various stakeholders, particularly at district level has improved and in particular the burden of disease focussed planning has shown impact, and contributed to the decrease of IMR/CMR/U-5MR in the NSS. The commitment of the GoT to health sector reform and the continued donor support to Tanzania is commendable.

**Challenges:** Improving maternal, newborn and child health (MNCH) in all its facets is in spite of achievements through ICMI a challenge ahead. HIV/AIDS morbidity and mortality is and will be on the top of the agenda. However, in addition to these major challenges, "neglected" diseases and non-communicable health problems will require attention. This will be closely linked to the human resource crisis, which is already a reality today, for example in the field of obstetrical care, but which will be further aggravated through the human resource requirements of the treatment and care programmes. Quality of care needs improvement, and linked to it, is the strengthening of health information systems, including the maintenance of the NSS. Two challenges, for the present and the future, which need strong improvements, but which go beyond the health sector are good governance and equity.

**Conclusion:** It is not conclusive if health has really improved in Tanzania since the last review. However, taking a positive attitude there have probably been improvements in infant mortality rates, even though it is not clear to what extent these improvements documented in the national sentinel sites reflect also the situation at national level. Even though shortcomings persist, the health care delivery system is in better shape than before. A drop of bitterness remains issues related to equity and gender balance, where there is still major room for improvement.

**Suggestions:** The consultants do not claim to have obtained a comprehensive overview of the Tanzanian health system and suggest therefore only with modesty to focus on three areas:

- The human resource crisis in the health sector needs urgent attention and fast and concerted action. The human resource crisis is an example where joint action across sectors is necessary to find a solution. Without the necessary human resources not much progress in health service delivery will be achieved in the future and in particular in terms of achieving the "health" - MDGs. However, it is acknowledged that solving this problem goes beyond the MoH and the Ministry of Education, and includes a variety of governmental and non-governmental stakeholders.
- The burden of disease approach in setting priorities should certainly be pursued, and it has been shown to be an impressive success in a number of districts. However, there are some health problems (non-communicable diseases, neglected diseases) not fully covered by these exercises, and which should not be neglected and should receive more attention.
- Health status cannot be influenced without addressing basic questions of equity in access to health services. Improvements in the area of removing financial barriers are important, but equally important are gender-related barriers, and it is crucial that efforts should be strengthened to abolish these barriers.

**Recommendation:** If another "State of Health Review" should be anticipated in the future, it is strongly recommended to have it timed to the availability of a major new set of health information, such as a DHS or a Census exercise.

## 4. Introduction

### 4.1. Terms of Reference of the State of Health in Tanzania 2004 Assessment

The consultancy has drawn on the considerable volume of data currently available in order to arrive at conclusions whether or not health service delivery is improving in the public sector, which areas are improving faster than others and how to further escalate progress towards the identified Health Sector Strategic Plan goals, the National Strategy for Growth and Reduction of Poverty goals (NSGRP/PRS) and the Millennium Development Goals (MDGs). Specifically the consultancy's expected outputs were:

- To provide a comprehensive overview of the health situation in Tanzania in 2004;
- To assess health status outcomes linked to the PRS/HSSP objectives and goals, especially in the areas of fertility, mortality, morbidity and nutritional status.
- To assess whether there has been improvements in service delivery.
- To assess people's perceptions of public health care services including private for non profit health services in Tanzania.
- To identify disparities and inequities (including gender imbalances) in accessing public health care services
- To identify best practices/successes and current/future challenges to the Sector in terms of progress.
- To make suggestions and recommendations that may assist the Sector to further improve the health service delivery in Tanzania.

### 4.2. Methodology

Due to the limited time available, it was not possible to collect primary data, but the review has drawn on the large body of data and reports already available. The consultants basically relied on documents being provided through the technical committee, which is working on the Health Sector Performance Profile. Some additional literature search was undertaken. In order to provide some continuity and comparison possibility, the same set of criteria which had been identified in the 2001 State of Health Review were used for this review. In addition the attempt was undertaken to assess on the basis of the available literature and documentation people's perception. In order to provide a basis for comparison it was attempted to use the same health outcome and health service delivery indicators which had been applied as for the review of the State of Health in Tanzania 2001. Furthermore the documents and literature listed in the annexe were searched for information on the perception of the population and on equity in order to identify possible disparities and inequities in accessing health care in Tanzania.

In order to comment on the health status of a population, it would be necessary to have population based data. Facility based data, as they are produced through a HMIS are usually not reflecting the situation in the population, because usually many health events outside facilities go unreported. Nevertheless available HMIS and the annual RMO report 2003, the annual RCH Report 2004 and the most recent annual DMO Report covering 2003 were used.

Demographic surveys and sentinel data are more reliable, although they often have the problem of being sufficiently representative. The same applies for studies in specific regions or in the context of projects, which might generate valid data, which is then however difficult to generalize. As for nationwide data the 2002 Census, 2002 HBS and the HIV seroprevalence study of 2003 (TACAIDS, 2004) and to a limited extent data generated in the context of international agencies was used.

National Sentinel Sites data and the recent in-depth study by a team lead by NIMR-staff (Makundi et al, 2005) were used.

In addition to this formal analysis of data and information, a series of non-representative interviews with key stakeholders has taken place in order to obtain the opinion of these stakeholders pertaining to the State of Health in Tanzania and to get a better understanding of relevant issues. The input of these stakeholders was used to compile a list of best practices and future challenges.

## 5. Background of the Review

### 5.1. Tanzania Joint Health Sector Review 2005

The annual Joint Health Sector Review provides an opportunity for all stakeholders in the Health Sector to come together to review past performance over the previous year, deliberate on critical aspects influencing implementation, reach joint conclusions and collectively make commitments on selected issues for the coming year.

The Tanzanian health sector has been undergoing far-reaching reforms since the mid-1990s and has adopted a Sector-Wide Approach (SWAp). The reforms are being implemented at all levels and involve fundamental changes in many critical areas of the sector. The complexity of the current reforms and the challenges ahead are quite immense. Therefore, close monitoring and evaluation of the health sector's performance over time is quite imperative. To this effect, the health sector stakeholders have agreed to a set of indicators for the monitoring of the Health Sector Strategic Plan (HSSP) whilst at the same time also directly linked to the implementation of the Poverty Reduction Strategy (PRS) and the National Strategy for Growth and the Reduction of Poverty (NSGRP).

As such the Health Sector is now under increasing pressure to be able to demonstrate tangibly that it is moving in the right direction, making progress towards improved service delivery and health outcomes (MDGs, PRS goals, HSSP goals). At the most recent Joint Health Sector Review, held in March 2004, it was stressed on several occasions during the meeting, that there was a real need "to obtain objective information by which to take the pulse of the health sector". Thus, it was agreed and subsequently a milestone was developed that an independent study on the State of Health in Tanzania would be undertaken for the next review whilst at the same time complementing the work of the Health Sector Performance Profile Update. This would follow a similar review, which was undertaken in 2001 and was favourably received by all stakeholders

### 5.2. The State of Health in Tanzania, 2001, Summary of main findings

The 2001 report focussed on 16 indicators, which had then been used in the health sector performance profile:

#### Box 1 Indicators of State of Health Review 2001

##### Health Status outcomes

- Top 6 causes of morbidity and mortality among OPD attendees:
- IMR
- Maternal Mortality Rate
- Proportion of deaths of women of child-bearing age due to maternal causes
- Proportion of children under one year with severe malnutrition
- Proportion of under-five children with severe malnutrition
- Proportion of under-five case fatality due to malaria
- Prevalence of HIV infection among antenatal clinic attendees

##### Health service delivery

- Total OPD attendance per capita
- Proportion of births attended by skilled attendants
- Proportion of children under-one year fully immunised
- Malaria cases as percent of all under five cases presenting at OPD
- Total government public allocation to health per capita
- Total government & donor (budget and off-budget) allocation to health per capita
- Proportion of public health facilities in a good state of repair
- Percentage of public health facilities without any stock out of 4 tracer drugs and 1 vaccine

A major problem in 2002, when the last review had been written, was the large number of indicators, for which information was either unavailable or of "uneven" quality.

Morbidity trends clearly highlighted Malaria as the single largest cause of both morbidity and mortality, closely followed by ARI.

No reliable, population-based data on HIV were available for the 2001 review and information was linked to blood donors or antenatal clinics data, which have the known question marks about their being representative for the general population.

IMR was 99 per 1'000 based on data of 1999 and there was some speculation on whether IMR might be possibly on the increasing.

Inequity as such did not receive much attention in the 2001 report, although it was stated that only 13% of rural under-5s slept under bed nets compared to 48% of urban children.

In terms of service delivery/health systems' performance the report referred to 45% of the population living within 1 km of a health facility, 45% within 5 km, and 93% living within 10 km. However it was stated that there was a widespread need of rehabilitation.

The proportion of attended births declined from 44% in (1992) to 36% (in 1999) with urban-rural differentials and differences related to the education of the mother.

Already in 2001 immunisation coverage was stable and high, but there were disparities across rural-urban groups. Per capita OPD-contacts in 2001 were 0.71/year across ages, a comparatively good value.

The human resource crisis was not discussed in detail in the 2001 State of Health Report although crisis was looming even then as it goes back to the mid 90's when the total health workforce decreased from around 67'000 to 49'000 in 2002, with the population increasing at the same time from 25 million to 33 million inhabitants.

Already in 2001 public health expenditure was around 6\$ per capita. Although public spending for health had increased in percentage terms, it had decreased in absolute terms.

On the positive side one could observe in 2001 already changes in intra-health expenditure with more focus on preventive services.

## 6. Findings

### 6.1. The health situation in Tanzania in 2004

According to WHO<sup>1</sup>, “many factors combine together to affect the health of individuals and communities. Whether people are healthy or not, is determined by their circumstances and environment. To a large extent, factors such as where we live, the state of our environment, genetics, our income and education level, and our relationships with friends and family all have considerable impacts on health, whereas the more commonly considered factors such as access and use of health care services often have less of an impact.” Health determinants can be categorised as: personal behaviour and lifestyles; influences within communities which can sustain or damage health; living and working conditions and access to health services; and general socio-economic, cultural and environmental conditions.

Today it is general knowledge that poverty is a major factor influencing health (OECD/WHO, 2003). There has been with the exception of Dar es Salaam only little reduction in income poverty (NBS HBS, 2002), which stands at 35.7 % of the Tanzanian population living below the basic needs poverty line and 18.7% of the population living below the national food poverty line. Both figures have slightly improved compared to 1991/92, when they stood at 38.6% for the basic needs and 21.6% for the food poverty line.

Income poverty has implications for the access to health care, even in rural areas (Armstrong Schellenberg et al, 2003) and continues to make access more difficult for the poor in Tanzania (ETC Crystal, 2004). The relationship of food poverty on the prevalence of malnutrition is obvious.

This is somewhat in contrast to the fact that there has been since the mid-1990s a steady growth of GDP, which is since 2002 in line with the PRSP targets (URT, R&AWG, 2003). However, As recently stated in the NSGRP (URT, Vice President’s Office, 2005) this is a question of a growing income inequality in Tanzania, which cannot be discussed here.

Roads do not just play a role in the access to markets, but they are also a determinant in access to referral services, for example in the context of obstetrical care. The condition of most roads is classed as being badly maintained, and most of the rural roads are of this category (URT, R&AWG, 2003).

Unemployment in Tanzania a largely urban phenomenon in Tanzania has not changed in recent years, but it has implications on health as well, as it is linked to poverty (NBS HBS, 2002).

There have been stagnant primary school enrolment ratios in the late 1990s. These have improved substantially in the meantime (NBS HBS, 2002). However, in the short run, the bill for the stagnant enrolment in the 1990s, and in particular the decrease of the enrolment of girls (the ratio girls/boys decreased from 0.97 to 0.94) in the past will have to be paid, because of the close link between poor maternal education and poor child health.

Although improvements in the access to safe water sources have taken place, primarily the non-poor population has benefited, whilst for the poor access to safe water is still the exception (NBS HBS, 2002).

The number of orphans is increasing and in 2004 it is estimated that there might be up to 1’000’000 orphans living in Tanzania (UNAIDS/WHO, 2004). Mostly due to the HIV/AIDS epidemic the impact of this social problem on the health status of children and adolescents still needs to be assessed in detail.

Governance has consequences for the access to health care. There are corruption cases in the health sector, but the fact that nearly all local authorities conduct annual audits, indicates that the system is moving into the right direction.

<sup>1</sup> <http://www.who.int/hia/evidence/doh/en/>

The overall impression is that the general framework conditions relevant for health have not significantly changed in Tanzania since 2001.

## 6.2. Health outcomes

### 6.2.1. Population

The population on Tanzania Mainland is 33,584,607 (16,427,702 - males, 17,156,905 - females). The population of Zanzibar is 984,625 (482,619-males, 502,006-females). The annual population growth rate is 2.9 percent (Census, 2002). 75 percent is a rural population. The following table shows the population by age group and sex distribution.

Table 1: Demography of Tanzania

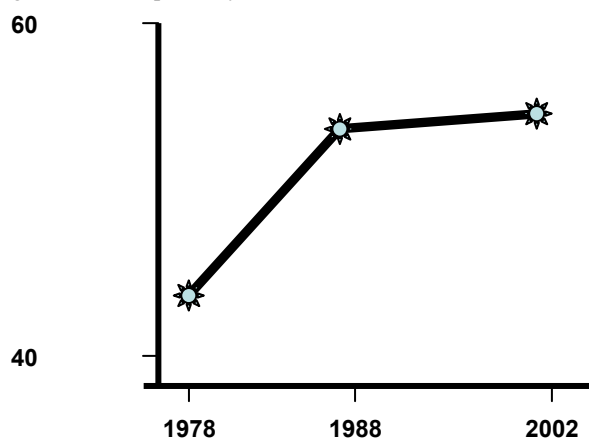
Age (years)	Total (%)	Males (%)	Females (%)
0 – 4	17	17	16
5 – 14	27	28	27
15 – 49 (WRA)	45	44	46
0 – 14	44	45	43
15 – 64	52	51	53
65 and over	4	4	4

Source: Census 2002

### 6.2.1. Life expectancy

The life expectancy at birth for Tanzanians is 54 years for males and 56 years for females (Census, 2002). There has been a sharp increase from 44 years in 1978 to 50 years in 1988. The slowing down of the increase since 1988 is most probably linked to HIV/AIDS.

Figure 1: Life expectancy 1978 - 2002



Census 1978/1988/2002 data

### 6.2.2. Fertility

Table 2: Total Fertility Rate

1988 (Census)	6.5
1996 (TDHS)	5.8
1999 (TRCHS)	5.6
2002 (Census)	6.3

National census (1988/2002) and DHS (92, 96, 99) data

The Total Fertility Rate has decreased continuously since 1998. The increase from 1999 to 2002 census is difficult to interpret at this point in time. The upcoming TDHS 2005 will probably clarify this question.

### 6.2.3. Top 6 causes of morbidity

Community based morbidity data is scarce. The HBS 2002 produced the following data:

Table 3: Morbidity (community)

Year referred to		2000/01 ♂	2000/01 ♀	Total
Values Children (< 15 years)	<b>Fever/Malaria</b>	<b>68.7 %</b>	<b>70.1 %</b>	<b>69.3 %</b>
	<b>Diarrhoea</b>	<b>14.1 %</b>	<b>14.7 %</b>	<b>14.4 %</b>
	<b>Accident</b>	<b>3.0 %</b>	<b>1.8 %</b>	<b>2.5 %</b>
	<b>Dental</b>	<b>2.4 %</b>	<b>2.3 %</b>	<b>2.4 %</b>
	<b>Skin conditions</b>	<b>2.9 %</b>	<b>4.3 %</b>	<b>3.6 %</b>
	<b>Eye</b>	<b>7.4 %</b>	<b>6.8 %</b>	<b>7.1 %</b>
	<b>Ear, nose and throat</b>	<b>10.7 %</b>	<b>10.5 %</b>	<b>10.5 %</b>
	<b>Other</b>	<b>12.3 %</b>	<b>11.7 %</b>	<b>12.0 %</b>
	<b>Multiple</b>	<b>17.8 %</b>	<b>19.3 %</b>	<b>18.5 %</b>
	Value Adults (15 years+)	<b>Fever/Malaria</b>	<b>60.4 %</b>	<b>59.9 %</b>
<b>Diarrhoea</b>		<b>9.7 %</b>	<b>10.1 %</b>	<b>9.9 %</b>
<b>Accident</b>		<b>8.7 %</b>	<b>2.4 %</b>	<b>5.0 %</b>
<b>Dental</b>		<b>5.1 %</b>	<b>6.1 %</b>	<b>5.6 %</b>
<b>Skin conditions</b>		<b>2.2 %</b>	<b>2.0 %</b>	<b>2.1 %</b>
<b>Eye</b>		<b>5.2 %</b>	<b>5.2 %</b>	<b>5.2 %</b>
<b>Ear, nose and throat</b>		<b>7.8 %</b>	<b>9.2 %</b>	<b>8.6 %</b>
<b>Other</b>		<b>25.1 %</b>	<b>29.2 %</b>	<b>27.5 %</b>
<b>Multiple</b>		<b>19.9 %</b>	<b>19.6 %</b>	<b>19.7 %</b>
Source and year reported		NBS HBS 2000/01		
Validity for health status in population measured	Yes	Yes	yes	yes
Representative for Tanzania?	Yes	Yes	yes	yes

This disease pattern clearly shows a predominance of communicable diseases, but chronic disease (“hidden” in other health problems) are not as uncommon as it is for example reported on the basis of facility based data (presented further down). Little information is available on non-communicable diseases and in the NSS the burden of diseases linked to this class of health problems is being reported to be around 8% (NSS, 2004) of the total burden of disease. This is in contrast to WHO-figures, which estimates that in Sub-Saharan Africa non-communicable diseases are increasing.

A particular issue is tobacco and smoking. Data for Tanzania is scarce. In the Tobacco Atlas (WHO, 2002) it is shown that Tanzania belongs to the countries in sub-Saharan Africa with the highest rates of smoking in adults. Of males age 15 and older 40-49%, and 10-19% females 15 years and older are estimated to smoke in Tanzania. In Dar es salaam a study (Jagoe et al, 2002) showed 27% of adult males and 5% of adult females smoking in a middle income area. The study comparing results with former work in Tanzania, indicated an increase in smoking prevalence.

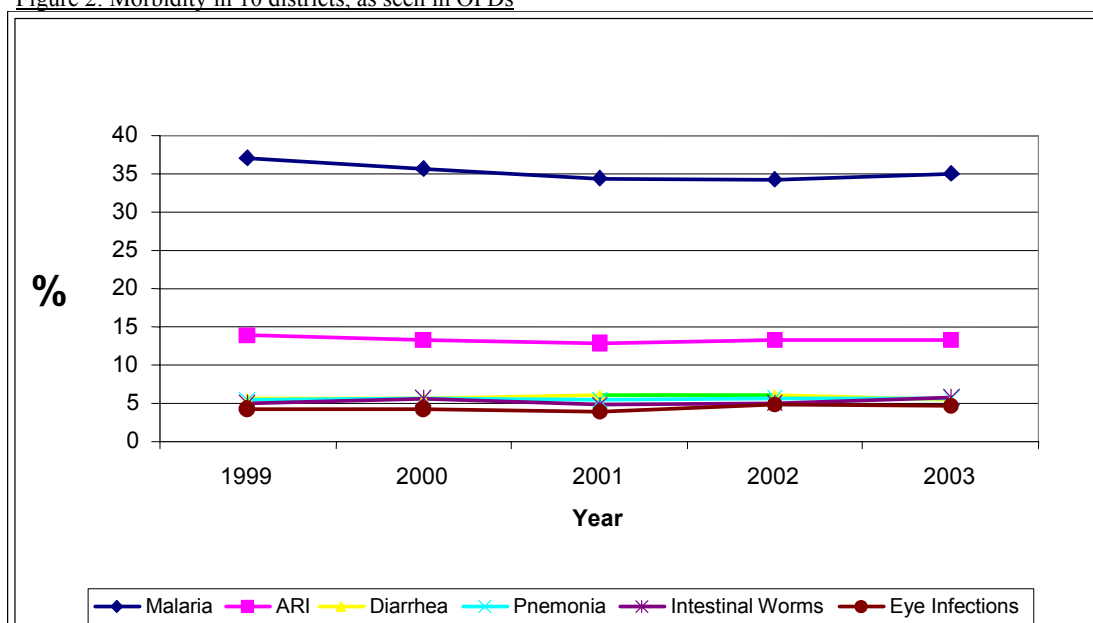
More common and routinely more or less available are morbidity data which are generated in health facilities. Also in the NSS, morbidity is determined on the basis of facility data. This method has the inherent shortcoming of emphasising acute, often communicable disease. The prevalence of chronic conditions tends to be underestimated, for the simple reason that patients suffering from these conditions are not using health facilities as frequently as patients with acute health problems.

Table 4: Morbidity (facility based)

Year referred to	2001	2002	2003
Indicator/Value (all age groups)	<b>Malaria (55%)</b> <b>ARI (21%)</b> <b>Diarrhoea (9%)</b> <b>Pneumonia (8%)</b> <b>Intestinal worms (7%)</b> <b>Eye infections</b>	<b>Malaria (55%)</b> <b>ARI (19%)</b> <b>Diarrhoea (11%)</b> <b>Pneumonia (8%)</b> <b>Intestinal worms (7%)</b> <b>Eye infections</b>	<b>Malaria (53%)</b> <b>ARI (18%)</b> <b>Diarrhoea (9%)</b> <b>Pneumonia (11%)</b> <b>Intestinal worms (9%)</b> <b>Eye infections</b>
Source and year reported	RMO Report 2003	RMO Report 2003	RMO Report 2003
Validity for health status in population measured	Yes, with limitations, as based on partly incomplete HMIS and the inherent facility bias	Yes, with limitations, as based on partly incomplete HMIS and the inherent facility bias	Yes, with limitations, as based on partly incomplete HMIS and the inherent facility bias
Representative for Tanzania?	Yes, with limitations, as based on partly incomplete HMIS and the inherent facility bias	Yes, with limitations, as based on partly incomplete HMIS and the inherent facility bias	Yes, with limitations, as based on partly incomplete HMIS and the inherent facility bias

With the limitations mentioned above, the pattern of top 6 causes of morbidity and mortality has not changed in recent years.

Figure 2: Morbidity in 10 districts, as seen in OPDs



Source: Makundi et al, 2005

However, one should keep in mind, that reporting morbidity and mortality observed in health facilities is closely linked to the performance of the health system and in particular of its staff. If staff is not sufficiently qualified, misdiagnosis and consequently misreporting is likely to happen. This seems to be particularly the case for malaria, where frequent misdiagnosis takes place (Reyburn et al, 2004). For obvious reasons this leads to an overestimation of this – probably nevertheless most important – public health problem in children in Tanzania.

#### 6.2.4. Main causes for mortality

The data presented further down is contrary to the morbidity data community (“verbal autopsies”) based and reflects therefore a picture closer to reality.

Table 5: Main causes of mortality

Year referred to	1994 - 2002			
Indicator/Value	<b>Under-5s:</b> Malaria/acute febrile illness Still birth, Peri-natal causes Diarrhoeal diseases Acute respiratory infections	<b>5 – 14 years:</b> Malaria/acute febrile illness Diarrhoeal diseases HIV/AIDS/Tuberculosis ARI Unintentional injuries	<b>15-59 years</b> HIV/AIDS/Tuberculosis Malaria/acute febrile illness, Diarrhoeal diseases, Cardiovascular problems and unintentional injuries	<b>60+ years</b> Malaria/acute febrile illness, diarrhoeal diseases, cardiovascular problems, acute respiratory infections and neoplasms
Source and year reported	NSS, AMMP, 2003			
Validity for health status in population measured	Reliable data for the three NSS (Hai, Morogoro, Dar es Salaam)			
Representative for Tanzania?	Inherent limitations of a NSS			

Data is based on estimated number of deaths each year in the sentinel sites in Tanzania from the leading five causes of death in each of the mentioned four age groups.

### 6.2.5. Maternal mortality<sup>2</sup>

Table 6: Maternal Mortality

Year referred to	2001	2001	2000
Indicator/Value	~230/100'000	543/100'000	1'500/100'000
Source and year reported	HMIS, 2002 and RCHS Report 2004	NSS, 2004	WHO/UNICEF/UNFPA, 2004
Validity for health status in population measured	HMIS-data with known facility-bias	Limited; part of the data is missing	It is based on estimations, with input from agencies' Tanzanian offices
Representative for Tanzania?	HMIS-data with known facility-bias	Limitations of the NSS	Yes with the limitations of a global modelling approach and a wide margin of uncertainty

Little to no recent nationwide data is available and figures are mostly from the NSS settings. But even there data seems to be partly missing (AMMP et al., 2004).

Maternal mortality rates/or the ratio are not easy to ascertain and to generalize for the whole of Tanzania. The rates produced through the HMIS (see Table 6 further down) oscillate around 230/100'000, but indicate a decrease in the past years. The true picture is certainly not so good. WHO/UNICEF/UNFPA (2004) estimate that the true figure could be possibly up to 1'500 per 100'000 live births. Even though there is a wide margin of uncertainty, the latter figure would mean that up to 25'000 women possibly die annually due to pregnancy related causes in Tanzania. To use a picture from the airline industry this number is equivalent to the crashing of a fully seated Fokker 100 of Tanzania Airlines almost every working day.

Haemorrhage is the leading cause, followed by sepsis, obstructed labour, eclampsia and finally abortion. This order has not changed in recent years, and is typical for a country like Tanzania with a high MMR.

Table 7: Maternal Mortality 2000 – 2003 according to HMIS

Year of measurement	Women of Reproductive Age Recorded Delivered	Number of Maternal Deaths	Estimated Maternal Mortality Rates (MMR)
2000	724,790	1,809	250/100,000 live births
2001	774,920	1,946	251/100,000 live births
2002	858,153	2,111	246/100,000 live births
2003	937,425	2,082	222/100,000 live births

Source: Annual Reproductive and Child Health Report, 2004.

Little to no information is available on those who survive complicated labour with sequelae, such as fistulae, but estimates go up to 250,000 per year (Women's Dignity Project, UNFPA and MOH, Tanzania Fistula Survey 2001, Women's Dignity Project, 2002). 26 percent of adolescent girls have their first birth by 19 years, which is a known contributing factor to high maternal mortality rate, and have an additional risk of lifelong morbidity. The poor maternal health is not only an indication of a serious problem with maternal health, but also of women's low status in Tanzania's society and poor access to basic health services. It is thus a sensitive indicator for the prevailing gender imbalance.

The explanations for this deplorable situation are complex, but are clearly linked to the low percentage of deliveries assisted by skilled professional staff<sup>3</sup>. Such staff is not widely available in first line facilities in Tanzania. As it has been shown internationally (Anand and Baernighausen, 2004) and is supported by the WHO, there is a clear linkage between maternal, but also infant/maternal mortality and the density of staff. Less skilled staff in maternities clearly translates into higher mortality rates.

<sup>2</sup> We mean here Maternal Mortality Ratio (number of maternal deaths per 100,000 live births) when writing "Maternal Mortality"

### 6.2.6. Infant and Child Mortality Rate<sup>4</sup> and under-5 Mortality Rate

Table 8: Infant/Child and under-5 mortality rates

Year referred to	2002	2002	2002
Indicator/Value	<b>IMR: 95/1'000</b> [Mainland 95/1'000 Zanzibar 89/1'000]	<b>CMR: 66/1'000</b> [Mainland 66/1'000 Zanzibar 59/1'000]	<b>Under-5: 153/1'000</b> [Mainland 154/1'000 Zanzibar 141/1'000]
Source and year reported	Census, 2002	Census, 2002	Census, 2002
Validity for health status in population measured	Yes	Yes	Yes
Representative for Tanzania	Yes	Yes	Yes

The latest nationwide data is stemming from the 2002 census. These figures indicate only minimal improvements compared to the previous State of Health Review, which was based on 1998 figures. The Census 2002 still shows a very large variation in between regions, urban and rural areas, which are difficult to interpret in a summary way, as under-5 mortality rates are influenced by numerous factors. As in previous years the Arusha and Kilimanjaro Region have with 58/1'000 LB and 67/1'000 LB the best under-5 mortality rates, while Lindi and the Mtwara region have with 217/1'000 LB and 212/1'000 by far the worst under-5 mortality rates.

The census 2002 data are consistent with findings of the NSS in Morogoro and Rufji, which produced similar results. In these National Sentinel Sites an impressive decrease in child mortality rates of more 38% in Morogoro and 55% for Rufji has been observed (NSS, 2004). Although these figures are reliable as they are based on comparatively large samples and data quality assurance measures have been in place, one has to be aware that these decreases in IMR/Child Mortality rates were observed in districts, which do not necessarily reflect the reality of all Tanzanian districts, because they had received partly substantial input in terms of strengthening of health services and one will wait to see the results of the DHS 2005 before one will be able to judge, if the downwards trend which has been observed since 1978 has continued.

### 6.2.7. HIV/AIDS<sup>5</sup>

Table 9: HIV/AIDS

Year referred to	2003	2003
Indicator/Value	7 %	<b>8.8 % (6.4% - 11.9%)</b>
Source and year reported	TACAIDS, 2004	UNAIDS
Validity for health status in population measured	First RA population-based sero-prevalence study	Estimation based on various data sources
Representative for Tanzania	Most realistic data so far in Tanzania	Limited, estimation

HIV/AIDS continues to be the single most important health threat to public health in Tanzania. Its true importance in terms of burden of mortality might be hidden in a number of the reported causes of death in Tanzania. Furthermore the NACP (2004) estimates that only one in 14 AIDS cases are reported, a total of 188'000 cases (98'000 female/90'000 male) are likely to have occurred, which considering the still problematic supply of ARVs causes an estimated loss of 187'000 lives in the year 2003.

TACAIDS found on the basis of the 2004 sero-prevalence study that 7 % of the population in the age group 15 – 49 are living with HIV in Tanzania. This figure is lower than one could have expected from previous sentinel surveillance sites (blood donors). However, it cannot be interpreted as an “all clear” sign for HIV/AIDS. Previous figures were not representative enough and cannot be directly compared to the now obtained prevalence rates in 2003. The following figures are interesting for the understanding of the distribution of the burden of the pandemic.

<sup>4</sup> We have added under five mortality rate, as they cover a larger life span and reflect to some extent also the impact of other factors, such as immunizations, and malnutrition

<sup>5</sup> We comment not on the prevalence of HIV infection among antenatal clinic attendees, but rather on the sero-prevalence of HIV in the population in the reproductive age group, as this figures provides a picture, which is closer to the reality.

Table 10: HIV/AIDS details

	% HIV +
Urban	10.9 %
Rural	5.3 %
Male	6.3 %
Female	7.7 %
Mbeya Region	13.5 %
Iringa Region	13.4 %
DSM Region	10.9 %

TACAIDS, 2004

Noteworthy is the clear gender difference: In Mbeya 15.2% of tested women were HIV-positive (compared to 12.4% of men) and in Dar 12.2% of tested women were positive compared to 9.4% of tested men.. The age group most affected in women is the 30 – 34, in which 12.9% are HIV positive, and for men 40 – 44, where 12.3 % are positive.

Apart from ringing further alarm bells in the high prevalence regions, the fact that women are obviously carrying most of the burden of this disease should receive particular attention.

Widely neglected in this context is the increasing number of orphans. Exact figures (CHECK TACAIDS; NACP) are not available, but it is estimated (UNAIDS) that there are close to 1'000'000 orphans already, living in Tanzania. The social web is already tearing.

### 6.2.8. Nutritional status

Table 11: Nutritional status

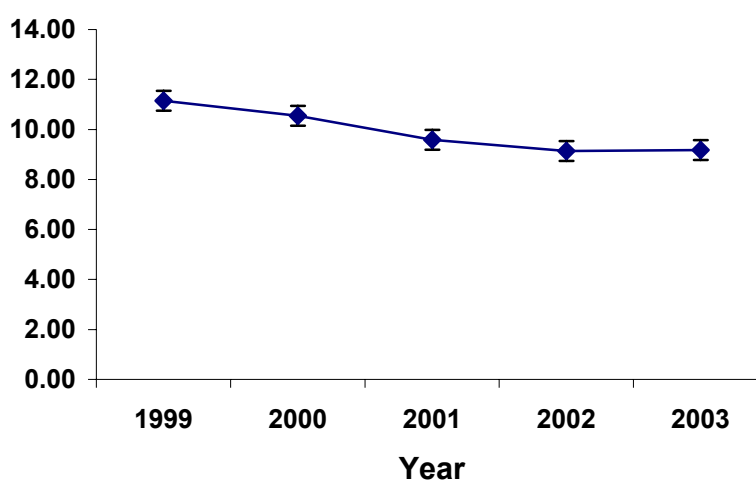
Year referred to	2003	2003
Indicator/Value	Low birthweight: <b>13%</b>	moderate/severe stunting: <b>9.18%</b>
Source and year reported	In Unicef, 2004, referring to DHS-data, which had been reanalysed in June 2003	Makundi et al. 2005
Validity for health status in population measured	Yes	Limited to the ten districts
Representative for Tanzania	Yes	Large variation within the 10 districts make it difficult to extrapolate to the national level

About 13% (UNICEF, 2004, re-analysing DHS data of 1999) of children are born with a birth weight of under 2500 grams. This is a sensitive indicator for the health status of a population.

In a recent overview paper on health in Tanzania (Smithson, 2005) correctly highlighted the fact that due to the overall low utilization of delivery facilities only a minority of babies are actually weighed at birth.

WHO estimates that under nutrition is an underlying cause of 53% of deaths of children under five years of age. On this background the above mention figures are not good news, and might continue to be an obstacle for health outcomes for years to come.

Figure 3: Percentage of severe underweight of under-5s (weight for age)



Makundi, et al., 2005

The proportion of under-5 with moderately or severe underweight is in the 10-district study (Makundi et al., 2005) 9.18% in 2003, which is not a statistically significant decline compared to 1999 figures. Furthermore there are enormous variations, ranging from 0.37% to 26% in the 10 districts.

In addition, the rural population has pronounced micronutrient deficiencies. Poor food safety, inadequacy in feeding and micronutrient deficiencies, such as iron, iodine and vitamin A, and frequent illness put children at high risk of suffering from and eventually dying of PEM.

Poor nutrition is not only a problem of children, but also of their mothers. The high rate of micronutrients deficiencies in women manifest themselves also in approximately 14 percent of women in the high land and 80 percent in coast areas being anaemic during pregnancy, and about 25 percent of maternal death is associated with anaemia. Although this anaemia is mostly influenced by malaria, nearly 70 percent of women continue also to be vitamin A deficient, despite the apparent high rate of vitamin A supplementation coverage of over 90 percent in 2002.

### 6.2.7. Neglected disease issue

The National LF-elimination programme has found in a nationwide mapping exercise that Lymphatic Filariasis is prevalent virtually all over Tanzania, meaning that is the total population of Tanzania is at risk of contracting this disease (Malecela-Lazaro M., 2004). With a comparatively simple mass drug administration (MDA) this disease could be prevented and eventually eradicated. The necessary drugs are provided by the pharmaceutical company GlaxoSmithKline for free, and have the positive side effect of destroying some of the different types of intestinal helminths, which contribute to the morbidity of all, but particularly the young age groups. However, for the time being MDA is only used in Zanzibar, Mafia Island and parts of the coastal region. Recently it has been proposed to linking LF and other neglected disease control programmes with malaria control programmes in particular ITN-based programmes (Molyneux et al, 2004).

### 6.2.8. Disability is widely neglected

Disability and handicap is not yet widely perceived as a problem, as it does not contribute significantly to mortality. However, a recent study (Makundi, 2004), estimated that at least one person out of each ten households lives with a disability. Using data from the end 90' it is estimated (TzPPA, 2004) that there are now more than 3.5 million people living with a disabilities in Tanzania. Of these approximately 28% are physically impaired, 27 % are visually impaired, 20% are deaf, 8% are mentally impaired, 4% have multiple impairments (TzPPA, 2004). Detailed figures are not available, but disabilities translate, into millions of lost DALYs in Tanzania, which are not yet accounted for.

### 6.3. Health service delivery

The GoT, supported by the donor community has engaged in a fundamental reform process of the health sector. These efforts are starting to produce tangible results, but although there are certainly improvements in some areas there is stagnation in others.

#### 6.3.1. Total OPD attendance per capita

Table 12: OPD attendance per capita

Year measured	2000	2001	2002	2003
Indicator/Value	0.5	0.71 for 73/114 (64%) districts	0.7	0.8
Source and year reported	National Malaria program database	National Malaria program database	National Malaria program database	National Malaria program database
Validity for health status in population measured	yes	Yes	yes	yes
Representative for Tanzania	Yes	Limited because of limited availability of reports	yes	yes

According to the HMIS, the OPD attendance per capita has been rising from 0.5 /capita in 2000 to 0.8 /capita in 2003. This increase seems to be a positive development, because it is generally assumed that a once yearly contact per capita with health services would have to be expected. However, these results reflect also the known problems of the HMIS. Reporting is incomplete and covers partly only 60% of all districts and thus it is difficult to state that there have been improvements over the years. However, if one looks into under five attendance in the Morogoro region, the picture looks different and shows an increase from 4.0/ capita in 2000 to 5.8 /capita in 2003. This is in by international standards rather high. It is noteworthy that the rate prior to the introduction of IMCI had been only 2.9/capita.

#### 6.3.2. Proportion of births attended by skilled attendants<sup>6</sup>

<sup>6</sup> The indicator "proportions of births attended by skilled health personnel" represents the percentage of all births attended by a skilled health worker. The term 'skilled attendant' refers to a health professional - such as midwife, doctor or nurse - who has been educated and trained to

Table 13: Births attended by skilled attendants

Year measured	2004	2003
Indicator/Value	<b>51% (for poorest quintile) 83% (for richest quintile)</b>	<b>80%</b>
Source and year reported	Economic Development Initiatives, 2004	Makundi et al. 2005
Validity for health status in population measured	Limited to rural Shinyanga	Limited to the ten districts
Representative for Tanzania	Yes, in terms of highlighting socio-economic inequalities	Yes, to some extent

Coverage of just around 30% in rural settlements is notoriously low and has seemingly not changed for the better over years. A recent study in rural districts noted a substantially higher figure of around 80% (Makundi et al., 2005). However, the authors conclude themselves that this is most probably an overestimation as all female workers at the dispensary level are considered to be skilled, which is clearly not the case. The reasons for poor coverage, particularly in rural areas, where it is about 50% of the urban figures, are not entirely conclusive, but as stated above, the poor quality of services is a contributing factor. This poor quality is closely linked to the availability or rather non-availability of qualified staff in the health sector in general and delivery care in particular. Staff has been reduced in 1995 from 67'000 to 47'000 in 2002. The impact of this reduction is becoming fully visible only in recent years. Professional staff is today insufficient both in numbers as well as in qualification.

Tanzanian women seem to be aware of this fact. A recent study in Northern Tanzania (Olsen et al, 2004) concluded: "it is neither the mothers' ignorance nor their lack of ability to get to a facility that is the main barrier to receiving quality care when needed, but rather the lack of quality care at the facility." Also cost can be prohibitive (TzPPA, 2004). This might be also one of the explanations for the strong discrepancy between the high antenatal clinic attendance and the low assisted delivery rate.

### 6.3.3. Vaccination coverage

Table 14: Vaccination coverage

Year measured	1999	2000	2001	2002	2003
Indicator/Value	<b>BCG (80%) DPT (76%) Polio3 (72%) Measles (72%)</b>	<b>BCG (85%) DPT (79%) Polio3 (71%) Measles (73%)</b>	<b>BCG (90%) DPT (92%) Polio3 (74%) Measles (73%)</b>	<b>BCG (88%) DPT (89%) Polio3 (93%) Measles (89%)</b>	<b>BCG (96%) DPT (95%) Polio3 (90%) Measles (90%)</b>
Source and year reported	EPI surveillance report/NIMR	EPI surveillance report/NIMR	EPI surveillance report /NIMR	EPI surveillance report /NIMR	EPI surveillance report /NIMR
Validity for health status in population measured	Yes	Yes	Yes	Yes	Yes
Representative for Tanzania	Yes	Yes	Yes	Yes	Yes

Since 1999 there has been a steady rise of vaccination coverage, which has reached in 2003 rates of close to 90%. Subsequently the incidence of vaccine preventable diseases has decreased dramatically. In 2003 less than 800 measles cases were reported and no major epidemic has taken place since (annual EPI-report, 2003).

### 6.3.4. Malaria cases as percent of all under five cases presenting at OPD

proficiency in the skills needed to manage normal (uncomplicated) pregnancies, childbirth and the immediate postnatal period, and in the identification, management referral of complications in women and newborns" (WHO, 2004). TBA or on the job-trained-staff is explicitly excluded from the category "skilled health personnel".

At the time of this review the HMIS had compiled figures for the year 2001, when 60% of under five case were reported to suffer from Malaria. In 2002 this figure was down to 43%. At first sight this indicates an improvement, however, the problem in interpreting these data is again the percentage of reports not received. In 2001 36% of districts had not provided the information. In 2002 only 4% of districts had not provided data.

A recent study (Reyburn et al, 2004) found that “...in Tanzania, malaria is commonly over-diagnosed in people presenting with severe febrile illness, especially in those living in areas with low to moderate transmission and in adults. This is associated with a failure to treat alternative causes of severe infection. Diagnosis needs to be improved and syndromic treatment considered. Routine hospital data may overestimate mortality from malaria by over twofold”.

Table 15: % of under-5s with malaria attack/fever getting appropriate treatment within 24h of onset

	2001	2003
Correct action	11	27
Wrong action	37	38
No action	52	35

Mwita, A., 2005

In spite of improvements between 2001 and 2003, still more than 70% of actions are not correct. This might indicate a possible tip of the iceberg, as there are obviously major problems in the quality of diagnosis in Tanzania and subsequently the problems with the quality of care.

The importance to address quality of care has been shown in the context of the Integrated Management of Childhood Illness, where the impact of adequately trained health workers on the observed quality of care of under-5s could be demonstrated in rural Tanzania (Armstrong Schellenberg et al, 2004).

### 6.3.5. Total government public allocation to health per capita and Total government & donor (budget and off-budget) allocation to health per capita and relation to total budget

Table 16: GoT allocation to health

Financial Year	2001/02	2002/03	2003/04	2004/05	2005/06
Total government public allocation to health per capita (Council and MoH Headquarters in Tsh)	3'363	4'487	5'078	4'631	5'478
Total government and donor (budget and off-budget) allocation to health per capita-National Health budget in Tsh	4'896	6'573	8'316	8'998	12'727
Health in relation to the total GoT excluding debt and interest payments = the 'discretionary budget'	8%	8.7%	8.9%	8.5%	8.7%

MoF in Health Sector PER Updates FY 04/05

1 US\$ = 1'100 TSh

There have been improvements of the funding basis and the sector has both in nominal and real terms of its share of the overall discretionary budget in FY04 and FY05. This is largely but not exclusively driven by external funding. However, the Sector is currently (and probably will be) challenged by existing demands and new demands, as it is becoming increasingly more costly to provide health care - new vaccines, more expensive and effective anti-malarials, essential commodities and scaling up cost effective interventions (including routine immunisation, VCT, ITNs, IMCI).

On the positive side, the allocation within the sector has seemingly seen recent improvements with the proportion of resources allocated to peripheral levels. A needs based resource allocation formula that is being applied to both GoT Health Block grants and District basket resources, covering both Personal Emoluments (PE) and other charges. This formula was developed to ensure a more equitable distribution of resources at the district level. The formula has 4 components that are used in the allocation of resources to the districts: Population (70%), Mileage (10%), Poverty level (10%) and Under-5 mortality (10%).

### 6.3.6. Proportion of public health facilities in a good state of repair

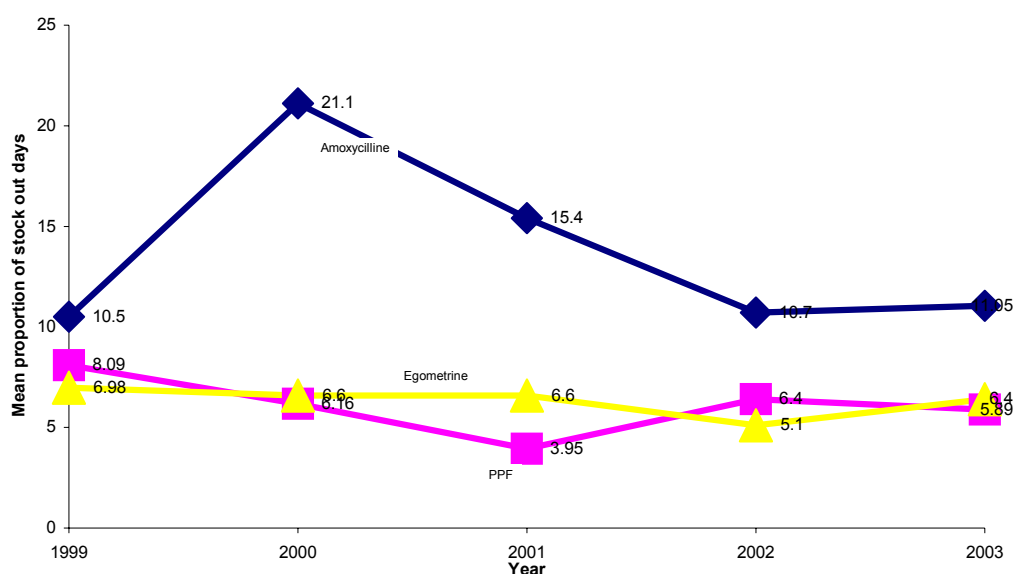
Table 17: State of public health facilities

Year measured	2003	2003
Indicator/Value	<b>80% of Hospitals</b> <b>70% of Health Centres</b> <b>55% of Hospitals</b>	<b>For ex. 51% of</b> <b>dispensaries requiring</b> <b>an upgrade</b>
Source and year reported	Makundi et al., 2005	3 Regions Health Study, 2004
Validity for health status in population measured	10 districts	Mara, Mtwara and Tabora
Representative for Tanzania	With limitations	Not necessarily

Although there have been improvements the infrastructure is far from being in a good state of repair and will continuous capital investment. A study in Mara, Mtwara and Tabora revealed partly very poor levels of equipment at dispensary level (Three Regions Health Study, 2004).

### 6.3.7. Percentage of public health facilities without any stock out of tracer drugs

Figure 4: Stockouts of drugs



Makundi et al. 2005: Assessing Trends in the overall performance of the health sector in Tanzania

There have been improvements at the national level, but in spite of the improvements of the drugs supply chain, there are still frequent stock outs of vital drugs. For example Amoxycilline had an average of more than 10 stock out days/month over the past four years. Strangely there are also stock out days for Ergometrine – a key drug to prevent post-partum haemorrhage. This is difficult to explain, as the number of assisted deliveries is low and the drug as such has not much commercial value. The situation is very similar both at the health centre as well as at the dispensary level. Although the stock out can be explained by the kit system, it is surprising that seemingly no action/correction of the drug supply system has taken place to correct this situation.

It can be reasonably anticipated that the ongoing change to an indent system will improve the situation, although a careful monitoring of drug utilisation in relation to morbidity seen will have to take place to avoid similar experiences.

### 6.3. People's perception of public health care services

As stated above, the per capita utilisation seems to have increased in the past years. This can be interpreted as an expression of trust of the population. Approval rates of facilities as recently determined by a study in ten districts (Makundi et al, 2005) are very high. A positive finding of this study is also that there is a very high awareness of the health sector reform programme. In this study, satisfaction with the quality of care was more than 90% of persons interviewed being more or less satisfied with services. This is an improvement compared to the Household Budget Survey of 2002, where only 68 % were satisfied. In both assessments, the most important criterion for people's positive perception of health services is the availability or non-availability of drugs. Surveys in rural Shinyanga and Kagera (Economic Development Initiatives, 2004) revealed also high satisfaction rates, with two thirds of users being satisfied with the quality of care which they obtained the health services.

A recent report (Permanent Secretary, President's Public Service Management, 2005) stated that the average Tanzanian civil servant makes 45% of his or her salary out of bribes. No specific reference to the health sector was made. However it is on this background not surprising that numerous qualitative studies and papers (TzPPA, 2004; GMWG-MP, 2004; Schwerzel/REPOA, 2003; Women's Dignity Project, 2004; SDC, 2003) highlight that outright corruption is common in the health sector.

### 6.5. Disparities and inequities (including gender imbalances) in accessing public health care services

Inequities of various kinds are still frequent and many examples can be found. It has to be noted though, that numerous policies, plans, guidelines and laws are in place to address inequities and disparities, although they are sometimes difficult to locate (Vargas-Barón, 2004).

#### 6.5.1. Poor – rich disparities

Table 18: Economic inequities

Year measured	1999	2000/2001	2002
Indicator/Value	<b>% of children under 5 who are severely stunted</b> 21.0 % for poorest quintile 7.1 % for richest quintile	<b>Reason for not using health services:</b> 8.4 % for poorest quintile 4.5 % for richest quintile	<b>Child with fever receiving appropriate treatment:</b> 31% for poorest quintile 62% for richest quintile
Source and year reported	World Bank, HNP-Status 1999	NBS HBS, 2002	Armstrong Schellenberg et al, 2003
Validity for health status in population measured	Yes	Yes	Yes
Representative for Tanzania	Yes	Yes	NSS limitations

The figures above are just examples, but highlight that socio-economic differences are still linked to inequality and inequity in accessing health care in Tanzania. The poorest quintile of Tanzanians has to spend 3.2% of their income on health, compared to 2.9% of the richest quintile (NBS HBS, 2002). This is phenomenon, which can be observed in expenditure for other basic services as well and goes in hand with a growing income inequality in Tanzania (URT, Vice President's Office, 2005).

#### 6.5.2. Gender inequalities

Table 19: Gender inequities

Year measured	2002	2000/01	2000/01
Indicator/Gender/Value	% HIV-positive in 15-49	Illiteracy of adults living in rural areas	% of ill/injured age group 45-54 in 4wks prior to enquiry

	♀	♂	♀	♂	♀	♂
	7.7 %	6.3 %	41 %	24%	40 %	28 %
Source and year reported	TACAIDS, 2004		NBS HBS, 2002		NBS HBS, 2002	
Validity for health status in population measured	yes		Yes		yes	
Representative for Tanzania	yes		Yes		yes	

The higher prevalence of HIV among females is among other factors a result of what the NACP (2004) described “females ... at a disadvantage position when it comes to negotiating for sex”. Not surprising in this context is also the finding that consistent condom use varies by gender: in recent studies (TACAIDS/Healthscope/HCP, 2004; FHI, 2005) unmarried male respondents reported significantly more often that they always used a condom with their most recent sex partner, than women did.

The high rate of illiteracy of rural women is not only an expression of gender inequity, but is also a contributing factor to poor health status of their children.

Women are suffering from more morbidity than men at all ages, with the exception of the under-5, where boys have higher morbidity levels (NBS HBS,2002).

The TzPPA (2004) found that acts of rape, domestic violence and gender-related abuse are frequent, but are commonly not well documented. Sexual and gender-based violence in general terms is wide spread, for example, but not only in the multiple refugee communities in Tanzania.

In short, there is ample evidence about gender imbalances, such as early childbearing, early onset of sexual activity and early marriages, Female Genital Mutilation is widespread, and despite being unlawful the practice to force pregnant girls out of school is frequent. (GMWG-MP, 2004; Blackden et al, 2004).

The – presumably – very high MMR (see above) reflects at least in part the difficulties women have in accessing (preventive and curative) health care and is another shocking point in case.

### 6.5.3. Urban-rural inequalities

Table 20: Urban-rural inequities

Year measured	2000/01		2000/01		2000/01	
Indicator/Gender/Value	IM/CM/U-5M per 1'000 Live births		Distance to a hospital less than 20 km		% of population using improved drinking water sources	
	Urban	Rural	Urban	Rural	Urban	Rural
	78/49/123	99/70/162	99% (DSM) 90% (other)	58%	92	62
Source and year reported	Census 2002		NBS HBS, 2002		NBS HBS, 2002	
Validity for health status in population measured	Yes		Yes		Yes	
Representative for Tanzania	Yes		Yes		Yes	

Urban-rural inequalities are striking and well documented. The general trend is that indicators are worse in rural area than in urban environments. Improvements of health indicators, in particular IMR/CMR/U-5MR, have been better were better in urban areas in recent years (Census, 2002). However, little is known about intra-urban differentials, where – as experience from other countries indicates - the urban poor are sometimes even more disadvantaged than the rural population in general. For HIV the trend plays also in the opposite direction. HIV/AIDS is much more frequent in urban environments than in rural areas.

## 7. Best practices/successes and future challenges

### 7.1. Best practices

In this context only a selection of best practices can be presented. The criteria for inclusion here seem arbitrary, but are based on opinions and comments obtained from interviews with stakeholders. The listing is by no means exhaustive, but intends to reflect that numerous laudable initiatives in the health sector are going on in Tanzania.

#### 7.1.1. Morbidity/Mortality related issues

- Some vertical programmes, like the TB-programme have had a very positive impact and have become an international landmark of good practice in the field of TB-control.
- IMCI has been successfully introduced in a number of districts and it could be shown that rapid gains in the quality of case management and ultimately in terms of child survival can be achieved. However the need to have had for this success the presence of a functional decentralized health system and the use of practical health system planning tools has been highlighted.
- Not the most important problem at this point in time, but it is good practice of the GoT to have climbed on the bandwagon of fighting tobacco. This will help not only to avoid that economic growth evaporates in smoke but also will have a positive impact on the health status of the Tanzanian population.

#### 7.1.2. Health Service Delivery area

- As mentioned above, the burden of disease focussed planning has shown impact: Burden of disease based budget allocation has shown a rapid and positive impact in reducing infant and under-5 mortality in the NSS districts. Allocation procedures are further refined by applying additional criteria, such as distance and poverty indices in order to channel resources to the districts, which are most in need.
- The overall planning capacity of the various stakeholders in the regions and districts has improved, even though many are still in a learning process. The improved funding basis of the health system has facilitated this process, because now decision makers in the district do not just have the planning responsibility but also some resources to take over this implementation responsibility.
- Commitment of the GoT and the donor community has improved the funding basis of the health system. Coordination and collaboration between the various stakeholders is constructive and provides the basis for further strengthening of the health sector.

#### 7.1.3. Equity

- Unfortunately there are not many concrete results in terms of improving equity and reducing disparities. However, it is a positive that numerous laws, regulations and guidelines are in place to address equity issues. Combined with an increased awareness of the importance of equity the foundation has been laid for improvements.

## 7.2. Challenges

Challenges are lying ahead in all areas mentioned above: morbidity/mortality related issues, service delivery issues, and last but not least equity and the reduction of disparities will need to be addressed. All this will take place in the context of the general social and economic development of Tanzania, which is in itself a titanic challenge.

### 7.2.1. Morbidity/Mortality related issues

- **Maternal, newborn and child health**  
Improving Maternal, newborn and child health is a huge challenge ahead. So far little achievement to the respective MDGs has been achieved. This is difficult to understand as most of the necessary interventions are known, comparatively cheap and thus most of the related morbidity and mortality could be prevented. The issue of the nutritional status of children needs special attention, although improving for example nutritional status is not only dependent on the performance of the health system, but on a positive general development of Tanzania.
- **HIV/AIDS- and TB morbidity and mortality**  
Without being too pessimistic the worst is probably still to come with this epidemic. The care and treatment approaches still have to demonstrate that it works. It will be important to maintain the high level of performance of the TB-control measures, as the quality of life and the life expectancy of many HIV/AIDS patients can be easily improved. The impact on increasing the number of HIV/AIDS orphans needs still to be evaluated and appropriate interventions – which will go far beyond the health sector – will need to be developed.
- **MNCH and the big “3”** contribute certainly most to the major burden of disease and require utmost attention. However, typical neglected diseases like Lymphatic Filariasis, Schistosomiasis and Trachoma because together with the further increasing non-communicable diseases, not to forget traffic and occupational accidents will become possibly earlier expected factors which influence the health status of Tanzanians.

### 7.2.2. Health Service Delivery area

- **Human resource crisis**  
The scale and scope of the crisis is well known and need not to be presented here again. The challenge is to translate this “knowledge”, not only into an “attitude” but also action that is policy decisions and eventual financial commitments.
- **Vertical programmes:**  
The influx of the funds in the context of treatment and care has started. It is widely perceived as a risk that this massive influx of resources will have an impact on the “internal brain drain” of already scarce human resources. Less funded programmes like maternal, newborn and child health might loose attention.
- **Quality of care**  
Quality of care is closely linked to the human resource crisis, because staff insufficient in numbers and qualification simply cannot deliver good quality of care. Quality of care has also an economic dimension in the sense that poor quality wastes resources and harms eventually the most important resource Tanzania has: its people.
- **To know what is actually going on.**  
A strengthening of the information systems is vital and has also been known for a long time. Whilst it is certainly important to maintain existing routine information systems, it will be a challenge to keep the National Sentinel Sites functional in order to obtain the necessary information for informed decision making. Apart from the routine and sentinel systems, there is ample information and experience available in Tanzania. However, it is sometimes difficult

to get hold of it. It will be a challenge to make all the information available for the informed decision making.

It is widely acknowledged that relevant health information is frequently difficult to find and often badly underutilised. A strengthened information management will become more important with the major additional funding now available to the health sector, as the disbursement will be even more than in the past linked to performance. To have reliable data on the degree of target achievement will be crucial to secure continuation of funding.

- Governance in the health sector:  
Good governance in the health sector is as important as in any other sector. Working in health sector should be done according to the highest professional standards and the respect of rules and regulations. According to these neither corruption nor poor medical practice have a place.

### 7.2.3. Equity

- To ensure equity in terms of (financial, geographic and cultural) access will be probably the largest challenge as it is linked to the above mentioned points as well as to changes in culture and attitude when it comes to a gender balanced development

## 8. Suggestions

The consultants do not claim to have a comprehensive overview of the health situation in Tanzania and therefore they would not dare to provide major recommendations, but rather suggest a number of areas, which could receive particular attention. Most of them have been proposed beforehand by others and by no means the list claim to be complete:

- The human resource crisis in the health sector needs urgent attention and fast and concerted action. It is an example where joint action across sectors is necessary to find a solution. Without the necessary human resources not much progress in health service delivery will be achieved in the future and in particular in terms of achieving the “health” - MDGs. However, it is acknowledged that solving this problem goes beyond the MoH and the Ministry of Education, and includes a variety of governmental and non-governmental stakeholders.
- The burden of disease approach in setting priorities should certainly be pursued, and it has been shown to be an impressive success in a number of districts. However there exist some health problems which are not fully covered by these exercises, and which should receive more attention:
  - Maternal mortality is probably the most neglected health problem in Tanzania.
  - With the objective to achieve a continuum of care an increased focus on Maternal, Newborn and Child Health, including adolescents is necessary. Although not as much a social as a health problem, the issue of the increasing numbers of orphans should be properly addressed.
  - In a narrow sense neglected diseases (Lymphatic Filariasis, Schistosomiasis, but also Trachoma) should and could be addressed.
  - In particular the issue of Lymphatic Filariasis should be closely followed, as there is a free treatment available, and the potential economic impact on the population is important. However, the positive side effect of de-worming of MDA and its positive impact on anaemia – a widespread syndrome which contributes to morbidity and mortality in Tanzania – could be considered as well.
  - Epidemiological transition is taking place in urban areas. The fact that there is seemingly a bias towards the urban areas should not hide the problem of the urban poor. More research into this issue would be helpful.

- Health status cannot be influenced without addressing basic questions of equity in access to health services. Improvements in the area of removing financial barriers are important, but equally important are gender-related barriers, and it is crucial that efforts should be strengthened to abolish these barriers.

If another “State of Health Review” should be anticipated for the future, it is recommended to have it timed with the availability of a major new inventory of health information, such as a DHS or Census. In addition it is suggested to continue to make use of the NSS-sites, as these do not only provide reliable data for informed decision making, but they could also be used to optimize existing and experimental approaches

## 9. Annexes

### 9.1. Documents consulted

- AMMP/URT/DFID/University of Newcastle Upon Tyne, The Policy Implications of Tanzania's Mortality Burden, Vol 2, Collected Publications and Reports, June 2004
- AMMP/URT/DFID/University of Newcastle Upon Tyne, The Policy Implications of Tanzania's Mortality Burden, Vol 4, Mortality Burden Profiles from Sentinel Sites, 1994 -2002, June 2004
- AMREF, Community-centred lifeskills education. Programme to promote sexual and reproductive health among out of school youth. January 2003
- Anand, S.; Baernighausen, T.; Human Resources and Health Outcomes.. Joint Learning Initiative. December 2003
- Armstrong Schellenberg J.R.M et al Effectiveness and cost of facility based Integrated Management of Childhood Illness in Tanzania.; The Lancet Vol 364, October 30, 2004
- Armstrong Schellenberg J.; Bryce, J.; de Savigny, D.; Lambrechts, Th.; Mbuya, C.; Mgalula, L.; Wilczynska, K.; The effect of Integrated Management of Childhood Illness on observed quality of care of under-fives in rural Tanzania. Health Policy and Planning (19)1, 2004
- Armstrong Schellenberg, J. et al.; Inequities among the very poor: Health care for children in rural southern Tanzania. The Lancet. Vol 361 February 15, 2003
- Babalola S. SURVEY ON SEXUAL ATTITUDES AND BEHAVIORS AMONG TANZANIAN YOUTH: BASELINE ASSESSMENT IN FIVE REGIONS – MARCH 2004.
- de Savigny D. et al., Fixing Health Systems. IDRC, 2004
- Dewji, I.; Literature Review of Tanzanian Specific Literature on Maternal Mortality and Morbidity; Care International in Tanzania, , 31 January 2005
- DHS Secretariat, Health, Nutrition, Population and Poverty Statistics, Tanzania 2000, 2003
- Economic Development Initiatives; Rural Shinyanga CWIQ. Baseline survey on poverty, welfare and services in rural Shinyanga Districts.. August 2004
- Economic Development Initiatives Rural Kagera CWIQ. Baseline survey on poverty, welfare and services in rural Kagera Districts.. April 2004
- ETC Crystal; Equity Implications of health sector user fees in Tanzania. Do we retain the user fee or do we set the user fee? Analysis of the literature and stakeholder views... July 2004
- ETC Crystal, Equity Implications of Health Sector User Fees in Tanzania, commissioned by REPOA, May 2004
- Gender Macro Working Group Analysis of Gender Issues from the ALAT consultative meetings at regional, district and village levels. A consultancy report to TRACE, September 2004
- Goodman et al; Retail supply of malaria-related drugs in rural Tanzania: risks and opportunities. Tropical Medicine and International Health., Volume 9, N°6 pp655-663, June 2004
- GTZ Repro Project, Risk sexual behaviour, KAP among youths at Kichangani Ward, Tanga District, Tanzania, 2002
- GMWG-MP- PRS II Review from a Gender Perspective, Gender Mainstreaming Working Group-Macro Policies
- Gwatkin D. R., et al. Socio-Economic Differences in Health, Nutrition and Population in Tanzania. The World Bank HNP Thematic Group; May 2000
- HERA, Technical Review of Health Services delivery at district level, Draft Report, March 2004
- HERA, Technical Review of Health Services delivery at district level, Final Report, March 2003
- IHRDC; Burden of Disease Profile 2002, Kilombero and Ulanga District, 2002 McKinsey;Tanzania Human Resources for Health, July 2004,
- Jagoe K., et al; Tobacco smoking in Tanzania, East Africa: population based smoking prevalence using expired alveolar carbon monoxide as a validation tool; Tobacco Control 2002;11:210-214; 2002
- Khan M. M. et al Partners for Health Reformplus; Geographic Aspects of Poverty and Health in Tanzania: Does living in a poor area matter?, October 2003
- Kimberly Smith, Abt Associates, Inc. G. Larsen; Evaluation of GAVI Immunization Services Support Funding. Case Study: Tanzania;, June 2004
- Kraut, A.; Nyenga, M.;Mvumilwa Augustino, M.; Schuemer, C.; Summary of the follow-up reproductive health needs assessment in the process of evaluating a CBD programme in Lushoto Division, Lushoto District. Tanzanian-German Programme to support health, April 2004

- Lungo H. Health information systems Project Tanzania. Development of the District Health Information Systems. University of Dar es salaam. 2003 (?)
- Makundi E.A., Hiza, P.; Kiszinza, W.; Mwisongo, A.; Mcharo, J.; Senkoro, K.; Mubyazi, G.; Malebo, H.; Magesa, S.; Munga, M.; Kamugisha, M.; Rubona J.; Kwesi, E.; Mdoe, R.; Kalinga, R.; Simba, D.; Malecela, M.; Kitua, A.Y.: Assessing Trends in the overall performance of the health sector in Tanzania, 2005
- Makundi et al. NIMR, Assessment of burden of disability in Tanzania: Findings from situation analysis, September 2004
- Malecela-Lazaro M., Overview of the Tanzania Lymphatic Filariasis Elimination Programme, 2004
- MEASURE Tanzania Reproductive and Child Health Facility Survey, National Bureau of Statistics, Tanzania and Evaluation, 1999
- Medical Service Corporation International (MSCI); THE THREE REGIONS HEALTH STUDY (MARA, MTWARA, AND TABORA) Part I and II,
- Molyneux D. H.; Nantulya V.M, Linking disease control programmes in rural Africa: a pro-poor strategy to reach Abuja targets and millennium development goals. *BMJ*;328:1129-1132 (8 May), 2004
- Msambichaka, L.A., Mjema, G., D., Mushi, D.P Assessment of the impact of exemptions and waivers on Cost Sharing Revenue collection in Public Health Services,, August 2003
- Muhondwa, E.; THE STATE OF HEALTH IN TANZANIA, 2001 March 2002
- Mwita, A., Malaria treatment, when to change policy and cost implications; A Presentation made to HSR Preparatory Meeting 15-17th March, 2005
- NACP; HIV/AIDS/STI Surveillance Report, January – December 2003, Report Number 18, Ministry of Health, , October 2004
- NACP; National AIDS control programme, Behavioural Surveillance Surveys Among Youths, 2002, Ministry of Health, March 2004
- NBS; Census Data: IMR/CMR/U5MR, National Census 2002, Dec 2004
- NBS; Planning Commission Demographic Health Survey 1996, 1997
- NBS (National Bureau of Statistics) Tanzania Reproductive and Child Health Survey 1999, November 2000
- NBS, Household Budget Survey FY01, July 2002
- NBS/Macro International, Tanzania Demographic and Health Survey 1992, 1992
- NBS/Macro International, Tanzania Demographic and Health Survey 1996, 1996,
- NBS/Macro International Tanzania Reproductive and Child Health Survey 1999, 1999
- NBS/Macro Group, Tanzania Reproductive and Child Health Facility Survey 1999, NBS/Macro International 1999 HIV/AIDS Indicator Survey, Executive Summary, 2005
- OECD/World Health Organization. Poverty and Health; DAC-Guidelines and Reference Series, 2003
- Olsen, Ø.E.; Ndeki, S.; Norheim, O.F.; Complicated deliveries, critical care and quality in emergency obstetric care in Northern Tanzania. *International Journal of Gynecology and Obstetrics* (2004), 87, 98 – 108; 2004
- PORALG Report of the Meeting of High level decision makers from the MoH and the President's office regional Administration and local Government . 20 August 2004
- REPOA, Policy and Service Satisfaction Survey, Main Survey Results, Oct 2003
- Reyburn, H., et al.; Overdiagnosis of malaria in patients with severe febrile illness in Tanzania: a prospective study, *BMJ* 2004; 329:1212; 20 November, 2004
- RHMT/GTZ Repro Impact of school-based information in Lindi Region, , 1999
- RMO report (in Kiswahili): JAHURI YA MUUNGANO WA TANZANIA: WIZARA YA AFYA. RIPOTI YA HUDUMA ZA AFYA TANZANIA BARA 2003: Imetayarishwa na Sekretariat: Afya Makao Makuu, Dar Es Salaam. September 2004
- Rønsholt, F. et al. Results-Oriented Expenditure Management. Country Study – Tanzania. Overseas Development Institute. March 2003
- Smithson, P.; Health in Tanzania. What has changed, what hasn't, and why?, Commissioned by DFID (Tanzania), , January 2005
- Salgado, R., Tanzania child Health Assessment: Will the child health millennium goals be achieved in Tanzania?, BASICS, Draft, December 2004
- SDC, Views of the Poor, May 2003
- Semali, I.A.J; Understanding Stakeholders' Roles in Health Sector Reform Process in Tanzania: The Case of Decentralizing the Immunization Programme., PhD Thesis University of Basel, 2003
- TACAIDS; HIV-prevalence in Tanzania, 2004
- TACAIDS/Healthscope/HCP Tanzania Youth Survey. March, 2004
- Tanzania Social Action Fund (TASAF). Community Service Delivery Survey (CSDS) for Morogoro Rural District. May 2002
- The World Bank Tanzania Social Sector Review, November 1999

- The World Bank, Tanzania. A Country Status Report on Health and Poverty (Health, Nutrition, and Population inputs for the PRSP and HIPC process), Draft version 2, January 2003
- The World Bank, Growth, Inequality and simulated poverty paths for Tanzania, 1992 -2002. World Bank Policy Research Working Paper 3432, October 2004
- The World Bank, HNP-Indicators Tanzania, 1999
- TEHIP Brief N°1-N°5; Overview, District Burden of Disease Profile, District Health Accounts, Rural Health Facility Rehabilitation, The district Integrated Management Cascade, 2000 – 2003
- TGPSH, Situation Analysis of youth (health) centres in Tanzania, September 2004
- UNICEF, Situation Analysis of Children in Tanzania, January 2002
- UNICEF/WHO; Low Birthweight, Country, regional and global estimates; UNICEF, New York, 2004
- UNAIDS/WHO, Epidemiological Fact Sheet on HIV/AIDS and sexually transmitted diseases. Update 2004, 2004
- UNFPA and MoH, Tanzania Fistula Survey 2001, Women's Dignity Project , Aug 2002
- Unwin, N., et al. Noncommunicable diseases in sub-Saharan Africa: Where do they feature in the health research agenda?, Bulletin of the World Health Organization, 2001
- URT, Health Sector PER Update FY2004, April 2004
- URT, District Health Interventions Profile 2004, Tanzania Rural Coastal Districts, 2004
- URT, Health Statistics Abstract 2002, Vol II, Inventory Statistics, June 2002
- URT; HSR Secretariat; Tanzania Joint Annual Health Sector Review, 15th-17th of March 2004, Report of proceedings, April 2004
- URT Health Statistics Abstract 2002, Vol I, Burden of Disease and Health Facility Utilisation Statistics, , June 2002
- URT, Poverty Monitoring Secretariat, Indicators for Performance Assessment in the context of the Tanzania Poverty Reduction Strategy, February 2003
- URT, Second Health Sector Strategic Plan (HSSP), July 2003-June 2008, April 2003
- URT, Second Health Sector Strategic Plan (HSSP), July 2003-June 2008, Vol II, Annexes, April 2003
- URT, Burden of Disease Profile 2002, Coastal Zone, 2002
- URT; MoH, Joint Health Sector Review. Sectoral Performance Indicators Update 2003.
- URT, Ministry of Health, Health Information, Research and Statistics Section Health Statistics Abstract 1997,
- URT, Ministry of Health, Health Information, Research and Statistics Section Health Statistics Abstract 1998,
- URT; Ministry of Health. Commodity availability for selected health products: Baseline survey for integrated logistics system; October 2003
- URT Ministry of Health, Health Information, Research and Statistics Section Health Statistics Abstract 1999, Volume 1 Morbidity and Mortality Statistics,
- URT, Ministry of Health, Health Information, Research and Statistics Section Health Statistics Abstract 1999, Volume 2, Inventory Statistics,
- URT; Permanent Secretary President's Office Public Service Management. Quarterly Report, Oct-Dec 2004 and Mid-year Progress; Public Service Reform Programme; January 2005
- URT, Poverty Reduction Strategy, The Third Progress Report FY03, April 2004
- URT; Vice President's Office; National Strategy for Growth and Reduction of Poverty, Jan 2005
- URT, R&AWG; Poverty and Human Development Report 2003, 2003
- URT; MoH, Health Information for decision-making: Reconciling systems and approaches. Report from a workshop., 10 February 2004
- URT. Joint Ministry of health and president's office. Regional Administration and Local Government; Health Basket and Health Block Grants Guidelines for the disbursement of funds, preparation of comprehensive council health plans, financial and technical reports by councils. 12 December 2003
- URT, R&AWG;, Poverty and Human Development Report 2002, 2002
- URT (2003). Ministry of Health: The first District Medical Officers Annual Meeting Report: Quality Health Service Delivery in Tanzania: The District Focus. Morogoro, Tanesco Conference Hall. June 9-13, 2003
- URT; Ministry of Health (2004). Annual Reproductive and Child Health Report. Arusha AICC October 2004
- URT, TzPPA; Vulnerability and Resilience to Poverty in Tanzania – Causes, Consequences and Policy Implications, 2002/2003 Tanzania Participatory Poverty Assessment (TZPPA), Main Report, 2004
- Vargas-Barón E., Country Support Team for ECD and HIV/AIDS; Policy Analyses and Recommendations on early childhood development and HIV/AIDS in Mainland Tanzania and Zanzibar, November 2004
- WHO/UNICEF/UNFPA; Maternal Mortality in 2000; WHO, 2004
- Women's Dignity Project, UNFPA and MOH, Tanzania Fistula Survey 2001, Women's Dignity Project, Aug 2002.
- Women's Dignity Project; Poor people's experience of health services in Tanzania, 2004

- Women's Dignity Project; In their own words: poor women and health services, 2004
- Youthnet/fhi Iringa Youth Behavior Survey. Preliminary findings., November 2004
- Youthnet, Iringa Youth Behavior Survey – Findings and Report. February 2005

## 9.2. People met and interviewed

People met	Organisation
M. Bangser	Women's Dignity Project
F. Schleimann	Royal Danish Embassy
A. Hingora	MoH
S. Nyawaa	MoH
Magoma	MoH
EA. Makundi	NIMR
D. Simba	School of Public Health & Social Sciences-MUCHS
J. McLaughlin	World Bank
B. Schmidt-Ehry	GTZ
R. Külker	GTZ
F. Ndjau	MoH
A. A. Mzige	MoH
G. Luciola	Acquire
J. Dunlop	USAID
K. McDonald	UNICEF
S. Agbo	UNICEF
S. Kimmata	UNICEF
J. Titsworth	DFID
L. Devillé	Consultant PPP
J. Dusseljee	Consultant PPP
D. Robinson	Care International
M. Kimambo	CSS
G. Reid	TEHIP
M. Tiedeman	Youth net
J. Mahon	SDC
D. Sipora Temu-Usiri	UNFPA
C. Schuemer	GTZ
Z. Maimu	Dutch embassy
N. Iteba	UNFPA
M. Mautalo	Ag RMO Dodoma
Muhamela	Ag Chief Nursing Officer (MoH)
Mrs Hamza	Administrator (MoH)
E. Nagawe	WHO
P. Mapunda	Director, CEEM
F. Lwilla	Programme Officer TB & Leprosy (MoH)
R. Mandike	Deputy Programme Manager NMCP (MoH)
Kitambi	Programme manager EPI (MoH)
E. Mapella	RCHS (MoH)
Maarifa	Ag MOi/c Dodoma
C. Nyaki	Priest Catholic Church Mpwapwa Dodoma
Kitambulio	PORLAG
Maganga	PORLAG
S. Eubore	Community Development Officer Mpwapwa
M. Nassoro	Obstetrician Gynecologist Dodoma
R. Mgina	Ag RNO Dodoma
Alhaji Sheikh Omari, K.	The trustee of Mpwapwa Islamite
L. Masumbi	Rev. Anglican
L. Kasumbe	PORLAG
S. Kimboka	TFNC (MoH)
S. Bingi	District Community Development Officer Kondoa

### 9.3. Programme of the review

Date	Time	People met and organisations
Wednesday, 9/2/05	9:00	State of Health Review Group
Thursday, 10/2/05	10:00	Technical Subcommittee
Friday, 11/2/05	8:00	M. Bangser, Women's Dignity Project
	9:30	F. Schleimann, Royal Danish Embassy
	10:30	A. Hingora, MoH and S. Nyawa
	11:30	Administrator and?
	12:00	M. Magoma, Ministry of Health
Saturday, 12/2/05	10:00	Health Sector Performance Profile Group (EA. Makundi, D. Simba, JJ Rubona)
Monday, 14/2/05	10:00	J. McLaughlin, World Bank
	12:00	B. Schmidt-Ehry, GTZ
	15:30	F. Ndjau, MoH
	17:00	A.. Mzige, MoH
Tuesday, 15/2/05		M. Mautalo-Dodoma
		R. Mgina Dodoma
		M. Nasoro- Dodoma
		Bingi- Dodoma
		Maarifa- Dodoma
		Masumbi- Dodoma
		Kitabulilo-PORLAG
		Maganga-PORLAG
		C. Nyaki Dodoma Mpwapwa
		S. Eubore- Mpwapwa
		Alhaji Sheikh Omari, K. (Mpwapwa)
Tuesday, 15/2/05		Kasumbe-PORLAG
	9:45	G. Luciola Acquire
	13:00	J. Dunlop, USAID,
	14:00	R. Külker, GTZ
	15:00	K. McDonald S. Agbo, S. Kimmata, UNICEF,
	9:00	J. Titsworth, DFID
	13:00	L. Devillé, et al. list to be completed (health economist, plus former Chief medical officer
Thursday, 17/2/05	8:00	D. Robinson, Care International
	10:00	M. Kimambo, CSS
	12:00	G. Reid, TEHIP
	13:30	M. Tiedeman, Youthnet
	15:00	J. Mahon, SDC
	10:00	Development partners reproductive health & child health group and JJ Rubona
Tuesday, 22-24/2/05	10:00	P. Mapunda CEEM
	12:20	Mandike Malaria Programme
	13:30	Mapella RCHS
Thursday, 25/28/2/05	10:30	Lwilla TB & Leprosy
	13:30	Kitambi (EPI)
Tuesday, 8/3/05	12:00	S Kimboka (TFNC)
Thursday, 10/3/05	10:00	NACP (Meeting failed)
	15:00	CMO (Meeting failed)
Tuesday, 15/3/05	15:00	Presentation of the first Draft Report to Joint Technical Preparatory Meeting
Monday, 4/4/05	11:00	Presentation of second Draft Report to the Annual Joint Health Sector Review
Monday, 18/4/05	10:00	Debriefing JJ Rubona, J. Mahon, and Health Sector Performance profile team