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TANZANIA HEALTH SYSTEM ASSESSMENT 2010 REPORT

July 2011

This publication was produced for review by the United States Agency for International Development. It was prepared by Stephen Musau, Grace Chee, Rebecca Patsika, Emmanuel Malangalila, Dereck Chitama, Eric Van Praag and Greta Schettler for Health Systems 20/20 Project.

Health Systems 20/20 is USAID's flagship project for strengthening health systems worldwide. By supporting countries to improve their health financing, governance, operations, and institutional capacities, Health Systems 20/20 helps eliminate barriers to the delivery and use of priority health care, such as HIV/AIDS services, tuberculosis treatment, reproductive health services, and maternal and child health care.

July 2011

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Cooperative Agreement No.: GHS-A-00-06-00010-00

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Office of Health, Infectious Disease and Nutrition
Bureau for Global Health
United States Agency for International Development

Recommended Citation: Musau, Stephen, Grace Chee, Rebecca Patsika, Emmanuel Malangalila, Dereck Chitama, Eric Van Praag and Greta Schettler. July 2011. *Tanzania Health System Assessment 2010.* Bethesda, MD: Health Systems 20/20 project, Abt Associates Inc.

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TANZANIA
HEALTH SYSTEM ASSESSMENT
2010 REPORT

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ACRONYMS

ADDO	Accredited Drug Dispensing Outlet
AIDS	Acquired Immune Deficiency Syndrome
AMO	Assistant Medical Officer
ART	Antiretroviral Therapy
CCHP	Comprehensive Council Health Plan
CDC	Centers for Disease Control and Prevention
CFS	Consolidated Fund Service
CHAI	Clinton HIV/AIDS Initiative
CHF	Community Health Fund
CHMT	Council Health Management Teams
CHSB	Council Health Service Board
CSO	Civil Society Organization
CSSC	Christian Social Science Council
CTC	Care and Treatment Center
D by D	Decentralization by Devolution
DED	District Executive Director
DHMT	District Health Management Team
DHS	Demographic and Health Survey
DLDB	Duka la Dawa Baridi (Private Drug Sellers)
DMO	District Medical Officer
EGPAF	Elizabeth Glazier Pediatric AIDS Foundation
EML	Essential Medicines List
FBO	Faith-based Organization
FHI	Family Health International
GDP	Gross Domestic Product
GOT	Government of Tanzania
HIS	Health Information System
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
HR	Human Resources
HRH	Human Resources for Health
HSA	Health System Assessment
HSSP	Health Sector Strategic Plan
ICT	Information and Communication Technology
ILS	Integrated Logistics System
IP	Inpatient

ITN	Insecticide-treated Bed Net
JAHSR	Joint Annual Health Sector Review
LGA	Local Government Authority
MCH	Maternal and Child Health
MDG	Millennium Development Goal
MIS	Micro Insurance Schemes
MMAM	Mpango wa Maendeleo ya Afya ya Msingi (Primary Health Care Service Development Programme, or PHCSDP)
MOFEA	Ministry of Finance and Economic Affairs
MOHSW	Ministry of Health and Social Welfare
MOEVT	Ministry of Education and Vocational Training
MSD	Medical Stores Department
NACP	National AIDS Control Program
NGO	Nongovernmental Organization
NHIF	National Health Insurance Fund
NIMR	National Institute for Medical Research
NSSF	National Social Security Fund
OC	Other Charges
OPD	Outpatient Department
OPRAS	Open Performance Appraisal System
PE	Personnel Emolument
PEPFAR	President's Emergency Plan for AIDS Relief
PER	Public Expenditure Reviews
PHC	Primary Health Care
PLWHA	People Living with HIV/AIDS
PMO-RALG	Prime Minister's Office–Regional Administration and Local Government
PMTCT	Prevention of Mother-to-Child Transmission
PO-PSM	President's Office–Public Service Management
PPP	Public-Private Partnership
PSU	Pharmaceutical Services Unit
RAS	Regional Administrative Secretariat
RHMT	Regional Health Management Teams
RCHP;	Reproductive and Child Health Program
RMO	Regional Medical Officer
SCMS	Supply Chain Management
SHIB	Social Health Insurance Benefit
SPS	Strengthening Pharmaceutical Systems
STG	Standard Treatment Guideline
SWAp	Sector-Wide Approach
TB	Tuberculosis
TEHIP	Tanzania Essential Health Intervention Program

TFDA	Tanzania Food and Drugs Authority
TIKA	Tiba Kwa Kadi
TNCHF	Tanzania Network of Community Health Funds
Tsh	Tanzanian Shilling
USAID	United States Agency for International Development
USG	United States Government
VCT	Voluntary (HIV) Counseling and Testing
WDI	World Development Indicators
WHO	World Health Organization
ZTC	Zonal Training Center

ACKNOWLEDGMENTS

This study was funded by the United States Agency for International Development (USAID) and implemented by the Health Systems 20/20 project, in collaboration with the Ministry of Health and Social Welfare (MOHSW).

The leadership, support, collaboration, and input of many MOHSW colleagues were critical in getting this assessment completed. The authors are especially thankful to Dr. Faustin Njau for his review of the report and valuable comments and to the Chairpersons of various MOHSW Working Groups for their input. The authors also are grateful for the support provided by USAID /Tanzania, especially Susan Monaghan. The authors recognize the active participation and collaboration of Family Health International/Tanzania, and valuable review input by Kai Straehler-Pohl, TGPSH Health Financing (GTZ).

Finally, the authors are grateful to the key informants whose names and affiliations are listed in Annex B.

EXECUTIVE SUMMARY

INTRODUCTION

Tanzania is currently implementing its third Health Sector Strategic Plan (HSSP III, 2009–2015), which was developed in line with the goals of the National Strategy for Growth and Poverty Reduction (MKUKUTA), the National Health Policy 2007, and the Millennium Development Goals (MDG). These guiding documents recognize the improvement of people's quality of life as being essential to their ability to participate fully in the country's productive processes, thus placing the health sector as a priority of the government. The Tanzania Health Systems Assessment (HSA) was conducted in July/August 2010 to examine the health system as a whole, to identify major strengths and weaknesses, and to recommend potential areas for system strengthening. Strengthening the health system is globally acknowledged as essential to any country's ability to achieve the health MDGs.

Tanzania's health system is complex and works in an environment of very limited financial and human resources. The ongoing process of Decentralization by Devolution (D by D) adds a layer of complexity that stretches the managerial ability of staff to coordinate across different ministries and fulfill their roles within the Ministry of Health and Social Welfare (MOHSW) and Prime Minister's Office-Regional Administration and Local Government (PMO-RALG) structures. The political will for improvement of the health system is evident but implementation is often weak, arising in part from poor communication between the different levels of the system, lack of leadership and management skills and the imbalances between well-resourced vertical programs (e.g., HIV/AIDS) and the rest of the health system. It is within this context that this HSA tries to identify the critical cross-cutting constraints that can feed into current and future health systems strengthening initiatives.

The HSA team recognizes that many assessments and studies have been done in Tanzania over the past several years looking at individual health system components, such as financing or the supply chain. This assessment relies on findings of those previous studies and evaluations, supplemented and validated by new data collection at central, regional, and district levels. The HSA's focus is not necessarily to discover new evidence, but rather by examining all system components and their inter-relationships simultaneously, make important cross-cutting recommendations that affect the functioning of the whole health system and its multiple health programs. This assessment will also provide input for the 2010 Joint Annual Health Sector Review, and the ongoing development of a health financing strategy. It will also act as a reference document for the Health Systems Strengthening Working Group of the Health Sector Resource Secretariat.

METHODOLOGY

This assessment was adapted from the United State Agency for International Development (USAID) Health Systems Assessment Approach: A How-to Manual (Islam 2007), which, with this Tanzania HSA, has been applied in 19 developing countries. The assessment methodology consists of an analysis of the country's performance according to a set of internationally recognized indicators carried out through a review of available literature and statistics, key informant interviews, and field visits to confirm findings. As a *rapid* assessment, the HSA team does not collect any primary quantitative data but rather consolidates and analyzes the available data across all components of the health system to assess how the system is performing overall and to identify obstacles and opportunities that cut across multiple

system components. One constraint of this rapid approach is the limited time for prioritizing key constraints and vetting recommendations with in-country officials and stakeholders, although in most countries where HSAs have been conducted, these activities continue after the assessment is completed.

The first step of this assessment consisted of desk research, identifying documents and data (see Annex A) about the Tanzania health system via Internet research, recommendations from local team members, contacts at the MOHSW, the United States Agency for International Development (USAID)/Tanzania, and key informants contacted prior to the visit to Tanzania. Findings from this research were compiled into a "zero draft" that highlighted key gaps in information, and served to focus the in-country data collection. The team held multiple consultations with the MOHSW and USAID as well as with other health partners to identify key informants at the national level, identify priority areas of interest, and select an appropriate region for site visit.

The in-country data collection was conducted over two weeks, with interviews of key informants at the national level, as well as travel to Mtwara region to interview informants at regional, district, and facility levels. The Mtwara region was selected recognizing that it was a more remote region, and may not be representative of the whole country. Nonetheless, the findings in Mtwara Region do supplement findings from the central level, and provide a real picture of how the health system functions in more challenging areas. Key informants included representatives of donor organizations, professional organizations, health training institutions, representative of faith-based and nongovernmental organizations, regional health management team (RHMT) and council health management team (CHMT) staff, staff at public and private health facilities, and community representatives (see list of interviewees in Annex B.)

The assessment team comprised six members, each responsible for one HSA component: Service Delivery, Leadership and Management, Financing, Human Resources (HR), Pharmaceuticals, and Health Information Systems (HIS). Generally, several team members participated in each key informant interview, exploring the linkages between the various components of the health system. Each team member took primary responsibility for presenting the findings of his/her module, with input from other team members. The team prepared a matrix of health system inter-relationships together based on key issues within each component and analysis of component relationships. These key issues across the health system components were distilled into five cross-cutting constraints that impact all health system functions, with recommendations provided. Earlier drafts were reviewed by Health Systems 20/20 internal reviewers, the MOHSW, and USAID/Tanzania.

LIMITATIONS OF THE HSA

Conducting a comprehensive yet rapid health system assessment involves some trade-offs with respect to depth versus breadth of analysis. Time constraints preclude more in-depth root cause analysis of the constraints found. Although valuable data were collected from the district and facility levels, the team acknowledges that Mtwara is not representative of the whole country. The constraints in Mtwara due to its remote location may be more severe than in other regions. Nonetheless, the findings there are not unique, and do serve to highlight the weaknesses in the system. Despite the short time in-country, the pre-assessment desk review allowed the assessment team to leverage all the informative evaluations and studies that have been conducted, and maximize the value of in-country meetings.

STRENGTHS AND GAPS IN THE TANZANIAN HEALTH SYSTEM

The HSA team found it important to address the gaps in Tanzania's health system, while at the same time build on its strengths to identify recommendations that pave the way forward. This section describes the key findings by WHO building block, divided by strengths and gaps of the health system.

Health Service Delivery

Strengths

Health status in Tanzania is improving in many important areas. The infant mortality rate has decreased from 58 in 2007/2008 (Tanzania HIV/AIDS and Malaria Survey) to 51 in 2010 (DHS 2009/2010). The under-five mortality rate has also decreased 91 child deaths per 1,000 live births in 2007/08 (Tanzania HIV and Malaria Indicator Survey) to 81 child deaths per 1,000 live births in 2009/10 (2009/10 DHS). The percentage of births attended by skilled personnel has increased, as has DTP3 immunization coverage.

The total fertility rate decreased from an average of 5.6 children per woman of the reproductive age (age 15-49) in 2007/08 to an average of 5.4 children per woman of reproductive age according to the 2009/10 DHS. Contraceptive use is also on the increase, as the recent DHS reported 34% of married women use "any method of contraception" compared with 26% in 2004/05.

Tanzania has also made great headway on control and treatment of HIV/AIDS and malaria. Antiretroviral therapy (ART) coverage among people with advanced HIV infection is 80% (National AIDS Control Program (NACP) 2010 Care and Treatment Report). The 2009/10 DHS revealed that the percentage of households that own at least one Insecticide Treated Net (ITN) has increased from 39.2% in 2007/08 (Tanzania HIV and Malaria Indicator Survey) to 63.4% in 2009/10. The percentage of children sleeping under an ITN increased from 25.7% in 2007/08 (Tanzania HIV and Malaria Indicator Survey) to 64.1% in 2009/10. The percentage of pregnant women sleeping under an ITN also increased from 26.7% in 2007/08 (Tanzania HIV and Malaria Indicator Survey) to 57.1% in 2009/10.

According to HSSP III, approximately 90% of Tanzanians live within five kilometers of a PHC facility. The Government of Tanzania (GOT) demonstrates continued commitment to primary health care (PHC) through the Mpango wa Maendeleo ya Afya ya Msingi (MMAM) (Primary Health Care Service Development Programme, or PHCSDP) to achieve PHC services for all by 2017. MOHSW has also developed policies, strategies, guidelines and action plans and manuals that focus on general and disease-specific quality improvement. MOHSW is developing HSSP III-compliant Standard Operating Procedures and accreditation mechanisms to ensure consistent quality within all PHC facilities.

Vertical programs have made important contributions to the health improvements mentioned. Their flexibility to appoint programmatic and technical supervisory staff is critical in ensuring that treatment guidelines and procedures are followed, and to building capacity of counterparts in government services. Additional staff and other resources also allow these programs to ensure more consistent availability of necessary pharmaceuticals and commodities at service delivery sites.

Gaps

Although there are considerable improvements in overall service delivery in Tanzania, there are also several challenges. MOHSW has produced comprehensive policies and guidelines, yet according to several HSA interviewees, translation from policy into practice is a challenge throughout the country.

Despite well written standard operating procedures produced at the national level, lower-level health facilities often do not seem to be aware of them.

Clinical supervision is also a challenge due to CHMTs that may not have the right number of persons, or adequate qualifications and whose members do not have sufficient time to conduct supervisory visits properly. Health facilities would benefit from receiving more feedback and encouragement from these supervisors. Individual performance appraisals are institutionalized and through the OPRAS linked to promotions or demotions. However, there could be improvements made in communicating to facility staff, based on these appraisals.

MMAM funding to build new facilities in Tanzania is a great opportunity to improve service delivery. However, many of the facilities that have been constructed recently are not staffed appropriately, and some have no staff at all. The MOHSW does have plans to address this problem, which will be noted within the HRH section.

Although vertical programs such as HIV/AIDS, TB, and malaria control programs contribute greatly to the health system, at times they pose challenges to integration. Vertical programs compete for quality staff within councils that already have HR shortages, particularly at the supervisory level.

Leadership and Management (Governance)

Strengths

The MOHSW understands the importance of effective leadership and management for a well-functioning health system, and has put in place mechanisms and structures to promote coordination and input. There are MOHSW technical working groups, which include donor and NGO representation, established to address various components of the health system in a comprehensive way. There are clear guidelines on how information should flow within the system and explicit reporting relationships according to its organizational structure. Many governing bodies are designed to allow input from individuals and civil service organizations, for example Council Health Service Boards (CHSB) and health facility oversight committees. The government has also developed job descriptions with well outlined roles and responsibilities for positions within all levels of the health system.

In addition, MOHSW has been working towards the improvement of Comprehensive Council Health Plans (CCHP). They have recently updated the guidelines for Local Government Authorities (LGAs) on the CCHP process.

Gaps

Although the GOT has made great strides to reform the healthcare system by developing comprehensive policies and guidelines to allow for good governance, there are nonetheless challenges in terms of accountability, community-level voice, information reporting, and feedback. In some cases, while the structures and mechanisms are well-designed, the actual capacity of individuals to fulfill these mandates is insufficient.

Consensus and coordination between all relevant parties to identify common challenges, solutions, and actions could be improved. Part of the problem at lower levels is that many governing bodies or committees (such as CHSBs) that should exist do not. Others do exist but it seems that its members do not fully fulfill or understand their roles and responsibilities. The CHSBs, which could lead coordination of various stakeholders in improving health services, do not always perform that function. The DEDs are the appointed authority over CHMT members, however, they often do not put in place

mechanisms to assess performance or resolve problems. Willingness and capability to hold organizations and individuals accountable for their roles, responsibilities, and actions remains a challenge.

While guidelines and laws have been created, it seems that staff at lower levels within the health system are often not aware of them. Despite efforts at central level to ensure guidelines are provided in English and Swahili, distribution of guidelines is not sufficient to ensure knowledge and compliance. Recently, the Technical Review of the CHSB found that every district had interpreted the CHSB guidelines differently. The MOHSW is now developing a program to disseminate the CHSB guidelines to the regional level.

Health Financing

Strengths

Since 1993, the GOT initiated a health sector reform process to better utilize health resources and improve access to PHC. This process included the introduction of several private financing mechanisms in the form of user fees in public facilities and private health insurance schemes that pooled resources in effort to improve health services and alleviate financial risk to individuals. In 1999 GOT introduced the Community Health Fund (CHF) which targets the poor and those living in rural areas. In 2001 it introduced the National Health Insurance Fund (NHIF) for civil servants. More recent financing mechanisms include the Social Health Insurance Benefit (SHIB), under the National Social Security Fund (NSSF), private insurance, and other micro-insurance schemes. All these financing reforms are aimed at improving availability and accessibility of health care to all groups of people in the country, rural and urban.

The GOT is clearly committed to the health sector as evidenced by an eight-fold increase in the approved government budgets for health since 2000/01 (from Tsh 80.7 billion to 639 billion.) Per capita health spending has increased, from about US$10.58 in 2006/07 to estimated US $13.46 in 2008/09. HSSP III projections plan for health spending to increase to US$26.60 by 2014/15.

The CCHP planning and budgeting process emphasizes a bottom-up approach, coordinated by the CHMT. The planning and budgeting team is required to integrate community and health facility level priorities in line with the National Essential Health Package. The CCHP guidelines provide guidance on criteria to be used in selecting interventions for funding. At the end of the planning process, funding from the central government's block grants is allocated to councils or districts using a needs-based formula. This formula includes four factors: population, poverty count, under-five mortality and the district vehicle route (proxy is the size of the area covered). The use of this formula demonstrates the GOT's commitment to improving health equity.

Gaps

The GOT is committed to reforming health financing to ensure equitable access for all. However, there are several challenges that the HSA team noted related to funding, budgeting process and health insurance schemes. Although health expenditure has increased in recent years, total government expenditure on health has not reached the Abuja target of 15 percent of the government budget. It is important to note that per capital expenditure for health has increased to USD 18 (04/2011); target by WHO is USD 54. In addition, the health sector has many partners, and this calls for careful coordination and joint planning for effectiveness and sustainability.

Although they have the guidelines for CCHP, the HSSP3and the MMAM, where priorities are set according to the resources available and set targets, more support and guidance for CHMTs is needed during the planning and budgeting process. Presently, despite having the guidelines which indicate using facility-based plans, LGAs often rely on historical plans and budgets to guide future activities. It would be useful if resource prioritization and performance were more clearly linked during budget formulation. It is not clear the extent to which the activities selected for inclusion in the budget are the highest impact activities because there is an absence of critical analysis and priority setting criteria. Strengthening planning at facility level would also be useful, as well as opening bank accounts for the facilities, which will enable them to access their user fee revenues for the needed activities that are included in the council health plan.

Despite significant effort in developing insurance options, only10% of the population is currently covered by health insurance. Providers have had mixed experiences with the NHIF reimbursement procedures. Faith Based Organizations (FBOs) appear to have had better experiences with following these procedures and getting reimbursements quickly, than the public sector has had. This influences negatively the facility staff attitudes in treating NHIF patients, but also weakens the public facilities financially and thus affects the services in terms of quality and availability. The reserves held by the NHIF could be a reflection that it is operating efficiently, but may also be indicative of onerous reimbursement procedures. While the CHF has been promoted as the main mechanism for risk protection in rural areas, it has very low uptake and contribution rates.

Human Resources for Health

Strengths

Strengthening human resources is an important priority for MOHSW and its partners. Significant efforts are underway to address HR shortages, including increasing the production of health worker capacity. The MOHSW led by its new performance management team, the Health Systems Strengthening Unit has begun an initiative to double the workforce training output. As part of the initiative, MOHSW is in the process of validating and updating school/campus improvement plans. Thus far, execution of the initiative has begun for the first wave of school improvements/expansions for 23 schools on 9 campuses. The aim of this initiative is to create capacity for an additional 1,480 students across these 9 campuses by September 2011.

Furthermore, the Benjamin Mkapa AIDS Foundation (BMAF) and MOHSW have worked together to implement emergency hiring initiatives to streamline the hiring process. MOHSW has also made changes to attract new health workers, including accelerating payments for new hires.

The HRH Planning Unit is refocusing efforts in the HR Management Information System. Although HRH planning has been hampered by a lack of information, this improved system, which is being rolled out to seven regions and seven referral hospitals, is encouraging. Thus far, experience has shown that the system is simple and is capable of showing trends in many aspects such as attrition, mal-distribution, age profile, etc.

Gaps

Although there is significant progress in the area of HRH, an HR crisis at all levels still exists, and low staff motivation continues to affect the ability of the health sector to cope with the heavy load. This affects the overall quality of health services. In addition to the current efforts of the MOHSW, there is a

great need to enroll more students coming from rural regions/districts in pre-service training institutions, in order to improve ability to retain staff in these areas.

The team also found that the common approach to capacity building, using off-site meetings and seminars often leads to high absenteeism. Financial incentives given during off-site trainings, seminars, workshops, and other meetings could instead be used to improve quality of services. On-the-job training and mentoring need to be utilized more often in order to use financial resources as effectively as possible. The MOHSW has a strategy in place to strengthen its Zonal Training Centers, so that mentoring and on-the-job training can be done more often.

Moreover, the needs-based formula for distribution of block grant funds for health does not apply to personnel. Thus, budgetary funds for personnel are allocated based on where the health workers are, not according to need. In addition, staffing norms are identical for each health facility of the same type (hospital, health center, or dispensary), irrespective of utilization levels, resulting in very uneven workloads between facilities. The essential health package and related management activities will be ready in the near future and will clarify this issue.

Pharmaceutical Management

Strengths

Tanzania has made significant investments to improve the availability of medicines and supplies in health facilities. Tanzania fully transitioned to an Integrated Logistics System (ILS) in 2009 from one based on distribution of standard essential medicine kits. This new system has the potential to reduce the frequency of stock outs. MSD procurement procedures have also been improved to shorten lag time and simplify the procurement process. There are indications that stock-outs at facilities are improving. In addition, the distribution system is being changed, so that MSD delivers medicines and commodities directly to facilities (rather than to CHMTs as is the current practice.) MSD has piloted this new system in Tanga and hopes to roll it out to the rest of Tanzania once they assess the additional resources required.

In general, central and zonal medical stores are functioning, and in accordance with good storage practices, where stocks are secure, protected from sunlight, properly ventilated, well organized, and clean. The USAID-funded Supply Chain Management Systems (SCMS) project is supporting upgrading of four of the zonal stores to state-of-the-art warehousing facilities that will allow better stock managements.

Some of the vertical programs are extremely strong in their management of medicine and supplies because they have more support mechanisms and are managing a much smaller set of stocked items. The TB program has regional TB coordinators, while HIV/AIDS has regional and district AIDS coordinators, as well as supply chain monitoring advisors at the zonal level focused solely on supplies.

Gaps

Although Tanzania has made significant progress in recent years and medicines for all the vertical programs are available, consistent availability of other medicines and supplies in health facilities remains a challenge. For the later, irregular and insufficient funding impacts the MSD's ability to procure sufficient volumes on a timely basis. Implementation of the ILS nationally was completed in 2009, but it is clear that, facilities need additional support and supervision from the district and regional levels for the system to work well. Facilities sometimes do not place orders when they are scheduled to, or do not order the appropriate amounts of items.

There are many competing priorities at the district level, which makes it difficult for LGAs to give sufficient attention to ensure medicines and supplies are available in facilities when needed. It is clear that MSD's new mandate to distribute directly to all facilities will improve medicine availability as a result of direct customer communication. However, MSD needs to be supported financially to meet this demand.

There is also a need to strengthen the engagement with the private medicine sellers, since they are often the first source for health care. The roll-out of the ADDO program needs more support. While this model has the moral authority of the GOT, clear supervision and inspection mechanisms are needed to make it more effective – the current policy of relying on CHMTs needs to be reviewed to make it functional.

Health Information System

Strengths

The HMIS has a well-established structure that should allow the efficient flow of data from service delivery sites through the districts and regions to the national level. Supervisory structures also are defined so that the CHMT supervises the district hospitals as well as health centers and, through a cascade system, the health center supervises the dispensaries.

The government clearly recognizes the value of sound health information and is backing this up with appropriate financial and staff investment in strengthening the system to make it responsive to the monitoring and evaluation needs of all stakeholders and health management for the country. The key weaknesses in the current HMIS have been clearly documented and this is clear indication of the GOT's commitment to strengthen this vital part of the health system. There is a high level of coordination in this effort as the multiple ministries collaborate with multiple development partners under the SWAp structure to implement a five-year project (2010–2015) to improve HMIS.

Working groups have been formed to oversee various aspects of the project, under the overall direction of the Project Manager. Work has already started to implement various components of the project including providing training to staff at all levels in HMIS processes and the establishment of new cadres of staff specifically for HMIS.

Gaps

While the GOT is clearly committed to a well-functioning HMIS, there are nonetheless gaps in the current system. There is a need to develop a guideline as per health policy on data flow and information use, and prohibit the establishment of parallel subsystems. Additionally, overall coordination and sharing of data among systems has been a challenge in Tanzania. There is fragmentation in the collection and reporting of health information caused by strong vertical programs running their own reporting systems.

Furthermore, there seems to be an inconsistency between the data collected and use of the information to support decision-making processes. For example, LGAs use little of the data in their CCHP planning and budgeting process. Data and information pass through various levels of the administration, but are passed on rather than actively used for local planning. Additionally, the higher levels of the hierarchy often do not provide substantive feedback to the lower levels.

Staff capacities in the area of HMIS also are weak. Staff need to be motivated so as to improve their involvement to ensure that, mechanisms for the quality and timeliness of data collection and reporting are in place. There is a need to strengthen health workers' capacity to understand the value of health information data and be able to use it at all levels of the health system.

CONCLUSIONS AND RECOMMENDATIONS

This assessment of the Tanzanian health system reveals a mixed performance picture over the past decade. On the one hand, there have been significant improvements: total expenditures for health have increased significantly (per capital USD. 18.8 including the government's contribution), with a larger share allocated to the district level; infant and under-five mortality has declined; the proportion of births in health facilities has risen; and HIV prevalence has declined. There are several challenges, including:

- Successful completion of the implementation of the decentralization by devolution policy of government functions and finances
- Despite progress in the control of the HIV/AIDS epidemic, this still poses an enormous strain on human and financial resources to continue to manage and sustain the declining trend.
- Continue to reduce the HRH deficit
- Inadequate financial resources with competing demands/priorities, whose allocation and use remains a challenge, and inadequate disbursement formula.

These challenges have affected all components of the health system. After examining the key strengths and gaps affecting each of the health system components, the assessment team analyzed the commonalities in issues across the system. The team found five cross-cutting constraints that affect performance in all health system components, as discussed below.

Five Cross-cutting Constraints

1. Accountability
2. Staff roles, responsibilities and capacity
3. Existence of vertical health programs and projects with weak coordination and implementation
4. Prioritization of interventions and use of resources
5. HIV/AIDS and other vertical programs

Focusing on these cross-cutting constraints, the team developed recommendations for improving the system performance. The recommendations are arranged based on the different levels of the health system where action should be taken.

Accountability

There are challenges related to accountability throughout all levels of the health system, which affects all health care-related functions. There could be a better mechanism to address and act upon inadequate performance and enforce responsibility. This includes issues in performance such as how health facility staff treat patients, whether health management information system (HMIS) data are compiled and submitted as directed, whether the DMO takes action to address medicine shortages, and whether

Sector Wide Approach (SWAp) technical working groups (TWGs) implement their planned activities. The governance structures at council level need to be strengthened so that they appropriately hold DMOs and CHMTs accountable for health sector performance. In theory, DMOs and CHMTs have the bulk of the responsibility for planning and supervising all aspects of health services, including those delivered at faith-based and private facilities and drug outlets. While DMOs formally report through Council Health Service Boards (CHSBs) to the District Executive Director (DED), in practice, CHSBs do not always function and may not have the technical capacity to oversee the DMO. Health Facility Governing Committees that are supposed to be in place at the ward level to govern facilities are even weaker, and there is no culture of community or citizen action to resolve complaints.

TABLE ES-1. ACCOUNTABILITY – ISSUES AND RECOMMENDATIONS

Issues	Recommendations
A. There could be a better mechanism to address and act upon poor performance and enforce responsibility within the health system. B. In theory, there are clear channels of reporting issues/problems up the health system hierarchy; in practice, they are unknown to or unused by many due to lack of communication or fear of reprisal C. CHMTs have the bulk of the responsibility for planning, supervising, and ensuring service delivery, but in practice they are not held accountable to meet work plan targets. D. The prevalence of staff in "acting" positions contributes to lack of accountability and follow-through. E. Patients often do not fully understand their rights, or how/where to address their complaints and questions.	**Central** • A1. SWAp technical committee should set performance targets for central-level TWG focal persons. • A2. Central-level TWG focal persons should be given appropriate incentives and be held accountable to meet targets. • A3. District Health Services Coordinator in collaboration with the Regional Administrative Secretariat (RAS) should set performance targets for Regional Health Management Teams (RHMT). • A4. Open Performance Appraisal System (OPRAS) should be simplified and appropriately implemented. • D1. A system at the MOHSW, PMO-RALG, and President's Office–Public Service Management (PO-PSM) levels needs to be put in place to monitor how long a person has been in an acting position. **Regional** • A5. RHMT should be held accountable to specific performance targets set by the RAS and MOHSW. • A6. Feedback to the council and regions should be part of these targets. • A7. An appropriate reward could be given to the RHMTs that have the best-performing districts. • C1. RHMTs should develop tools to provide better supportive supervision and evaluation of CHMTs activities. **Council** • B1. Incentives should be created, tied to meeting Comprehensive Council Health Plan (CCHP) performance-related targets. • C2. CHSB functionality should be re-examined, including the ability to hold CHMT accountable. • C3. CHSBs are in most cases not functioning appropriately. The way they select members should be revised. Terms and conditions of membership should ensure members are actively fulfilling their roles. **Community** • E1. Community groups should be provided with information on basic rights and complaint channels (may include print, radio, and other communication channels). **Cross cutting:** • E2. The information and communication technology (ICT) unit should be involved in creating appropriate mechanisms, e.g. hotlines, web-based tools that allow those at all levels to bring up issues directly to responsible officers.

Staff Roles, Responsibilities, and Capacity

Despite the government's efforts to improve the situation, limited HR capacity is widely recognized as a critical issue in Tanzania. While this problem is often analyzed in terms of the numbers of various cadres of staff, there are other aspects of staff management that impact the productivity of the existing staff. A review of staff incentives to find the most appropriate means to motivate them is an essential element that requires an innovative look and bold action. Staff roles and responsibilities are not always clearly

communicated, and sometimes new responsibilities are assigned with little budget or other support. This issue comes through in key findings such as "acting" staff not fully understanding their responsibilities, gaps in critical skills such as operations management and data management, improvement needed in clinical supportive supervision at all levels, as well as enforcement of regulations. There could be more attention given to supporting staff as they take on new responsibilities, such as facility drug management or delivery of antiretroviral treatment. In addition to one-time classroom training, intensive support is required in the early stages of performing new activities, to ensure that any problems or misunderstandings are resolved early quickly.

TABLE ES-2. STAFF ROLES, RESPONSIBILITIES AND CAPACITY – ISSUES AND RECOMMENDATIONS

Issues	Recommendations
A. Appropriate incentives are necessary to motivate staff to perform better. B. HR management at all levels is could be improved to better fulfill the role of ensuring that facilities are sufficiently staffed. C. The responsibilities placed on CHMTs are too broad. CHMT members do not delegate responsibilities and signatory authority to ensure completion of assigned duties. D. The approach to capacity building using offsite meetings and seminars rather than coaching and on-the-job training is ineffective. E. Qualifications of many existing CHMT members do not meet the job description requirements. F. There is low enrollment of students from disadvantaged regions/districts in pre-service training institutions. G. Filling approved and funded HR posts due to over-complexity and serious delays in decision making and procedures is a challenge. H. Data are often not available to RHMT, CHMT, and health facility managers in a user-focused format for planning and decision making.	**Central** • A1; B1. Explore alternative incentive mechanisms to raise staff performance. • B2; G1. Streamline HR procedures, and develop an orientation process for those posted, particularly to remote facilities. Simplify the recruitment process to reduce the current number of days it takes to fill a vacancy. • F1. Design policy/guidelines to enhance communication between secondary schools, districts, health institutes, health facilities, and relevant ministries. Encourage enrollment of students from nearby rural areas in health training institutions and deploy them in their home areas. **Regional** • D1. Each region should have a team of mentors that can help build the capacities of the CHMT and its members. • E1. Zonal resource centers should be fully resourced to provide management training to CHMTs and to follow up with on-the-job assessment of application of skills. **Council** • A2. Explore alternative incentive mechanisms to raise staff performance • D2. Develop health management training that includes on-the-job mentoring and coaching, to assist CHMT members to more efficiently conduct responsibilities. • A3. Develop incentives for CHMT staff to delegate responsibilities to others. • F2. Create links between the health sector and the education sector, particularly in areas that are disadvantaged. DMOs and other CHMT members should actively pursue secondary school students and advertise the possible positions within the health sector, as well as provide information on the training institutions in the district. • F3. Put in place a mechanism so that the Local Government Authority (LGA) can participate in selection, financing of candidates for pre-service training, and bonding them to serve in the district/council. • C1. Rationalize and reorganize CHMT responsibilities by reviewing all of the functions (supervision, monitoring, reporting) assigned by various programs and departments to define a core set of efficient management functions that can be implemented to meet all the priority needs. • H1. Involve the ICT unit in developing data management training, which includes data cleaning and processing in a simple and user-focused format for planning and decision making. The use of Demographic Surveillance System information/outputs in planning and decision making should be emphasized.

Existence of vertical health programs and projects with weak coordination and implementation

Fragmentation and lack of coordination in many different areas of the health system is a challenge. Devolution of service delivery to Councils increases the complexity of management, requiring more attention to coordination between Ministries at national and sub-national levels, as well as communication from national to sub-national levels within each ministry. This assessment found many examples where coordination of the health system could be improved, including: staff recruitment and retention policies which require improvement in coordination with LGA and PO-PSM; collaboration with the private sector; and communication from central to lower levels. It is difficult to bridge the gap between policy-setting at the central level, and implementation at periphery levels, but the division of responsibilities among different institutions makes it particularly challenging. While the central level may expend a significant effort to develop good policies and guidelines, this is for naught if there is not adequate support to disseminate those guidelines and ensure implementation. One of the most pressing problems within the health system, HR constraints, cannot be addressed by the MOHSW alone – it must work more closely with PMO-RALG and PO-PSM on HR recruitment, deployment, and financing, if the HR gap is to be addressed.

TABLE ES-3. EXISTENCE OF VERTICAL HEALTH PROGRAMS AND PROJECTS WITH WEAK COORDINATION AND IMPLEMENTATION– ISSUES AND RECOMMENDATIONS

Issues	Recommendations
A. Multiple initiatives in health sector could be better coordinated and can lead to confusion, duplication, and wasted resources. B. Multiple funding and health insurance schemes could be better coordinated at all levels. C. Although policies are well writen, implementation is a challenge, because policies are not disseminated and communicated as often as necessary. D. Coordination between and within MOHSW, PMO-RALG, and PO-PSM could be improved.	**Central** • A1. PMO-RALG and PO-PSM should be represented within central-level working groups more frequently to ensure common understanding and support of all policies, and to agree on how new policies are to be disseminated and implemented. • A2. Coordination should be improved between the various TWGs at central level, to improve implementation of multiple programs and initiatives that may compete for limited staff resources at district and facility level. • C1. Central-level policies and guidelines should be simplified so that they are easy to understand and implement, with appropriate budget to support dissemination and sensitization at all levels. • D1. Joint quarterly meetings of the MOHSW, PMO-RALG, PO-PSM, and MOFEA should be held to deal with critical cross-cutting issues such as HRH recruitment and deployment and financing. • B1. A risk-equalization mechanism should be introduced between the various insurance schemes, such as NHIF, CHF, Tiba Kwa Kadi (TIKA), and SHIB. **Regional** • C2. RHMTs need a budget for disseminating policies. • A3. RHMTs should conduct a donor and NGO mapping activity to see what is being done in their region. Best practices should be shared throughout country.

Prioritization of Interventions and Use of Resources

Closely related to the issues around coordination are issues in prioritization of interventions and making efficient use of limited resources. Setting of clear priorities is a challenge at all levels, and limits the resources available to effectively implement critical activities – health staff pursue many activities, but are often spread too thin. The government of Tanzania adopts many initiatives and strategies, some of which are significantly under-supported – a few examples from HSSP III include the Primary Health Care Service Development Programme (Mpango wa Maendeleo ya Afya ya Msingi, MMAM) (estimated to cost over US $8.0 billion,) various health insurance schemes including the National Health Insurance Fund, Tiba Kwa kadi (TIKA) and the CHF, and Accredited Drug Dispensing Outlets (ADDOs). After the initial introduction phase of each initiative, ongoing support and supervision activities are not funded as needed funded. Timing of funding disbursements, which is often inconsistent, also affects the ability of staff to manage their work – CHMTs often face situations where there are no funds to carry out planned activities for an extended period, then multiple sources of funding are released that require quick expenditure. Management capacity at all levels could be improved.

TABLE ES-4. PRIORITIZATION OF INTERVENTIONS AND USE OF RESOURCES – ISSUES AND RECOMMENDATIONS

Issues	Recommendations
A. The flow of funds from the national level, mobilization of revenue at the local level, and capacity to plan and spend could be improved. B. Capacity to prioritize interventions could be improved so that resources are used more effectively. C. There could be more flexibility to manage resources according to council needs, including uncertain timing of funds, staffing of vacant positions, pharmaceuticals, etc. D. Quality of health services could be improved with more efficient management of HR, supplies and equipment (including transport). E. High absenteeism due to financial incentives (per diem) given during off-site trainings, seminars, workshops, and other meetings. F. Low absorption capacity of available fund due to long and time-consuming procedures in the councils.	**Central** • C1. Streamline and strengthen the recruitment process because failure to fill approved and funded HR posts is due to over-complexity and serious delays in decision making and procedures. • B1; D1 Health management training curriculum should be developed and incorporated into pre-service and in-service training. • A1; C2. Within their ceilings and with proper guidance, each council should be allowed more flexibility to manage their funding (e.g., saving it for later) so that they can accommodate peak seasons (e.g., of malaria) or work around rainy seasons, which prohibit them from constructing new facilities. • E1. SWAp technical committee to create mechanism for all programs and initiatives to provide a report of upcoming trainings (including dates, districts, and individuals) that is compiled and sent to councils in advance to facilitate staff planning. Set and enforce a limit on the number of person days of offsite training per council. **Council** • B2. Provide better guidance to CHMTs to translate health data into health plans, with appropriate prioritization of activities based on health needs. • D2. Create incentives to encourage better performance in supervision of health facilities. • C3; F1. Strengthen financial management capacity at facility and council levels for all sources of health funding in the CCHP, focusing on on-the-job mentoring and coaching rather than off-site training. Streamline fund acquisition procedures to reduce lead time between requesting and actual payment of the requested funds.

HIV/AIDS and other Vertical Programs

Lastly, HIV/AIDS continues to be a driving force in the health sector – its impact on staff management, funding, and service delivery is felt at all levels. While attracting substantial additional funding for health, HIV/AIDS programs also compete for limited health staff at the district level and above. For example, there is competition both among HIV/AIDS programs and with other vertical programs and services. HIV/AIDS and other vertical programs tend to operate independently, further which makes it challenging to use resources in the most efficient way.

TABLE ES-5. HIV/AIDS AND OTHER VERTICAL PROGRAMS – ISSUES AND RECOMMENDATIONS

Issues	Recommendations
A. HIV/AIDS has a negative impact on HRH in the form of workload, staff morale, and infections/death. B. HIV/AIDS and other vertical programs compete for limited service delivery staff and do not collaborate among themselves nor with other vertical programs and health services.	**Central** • B1. Design ways and allocate funds to tackle HR issues in donor activities on HIV/AIDS. • A1. Put in place mechanisms to enhance workplace HIV/AIDS programs for HRH in health facilities. • B2. Create a new position that is a liaison between the National AIDS Control Programme and other vertical programs to ensure more effective collaboration, and to identify functions that could be integrated for better performance and higher efficiency. **Regional** • B3. RMO should create a mechanism for quarterly joint planning by all of the vertical program coordinators (TB, malaria, AIDS, maternal and child health, etc.). **Council** • B4. Create a mechanism at Council level for joint planning by all vertical programs.

1. BACKGROUND

The United Republic of Tanzania is located in Eastern Africa off the coast of the Indian Ocean. The country has a population of 41,892,895, almost 75 percent of which lives in rural areas (2008). With a gross domestic product (GDP) per capita of US$354 (2007), Tanzania is considered a low-income country. According to 2006 estimates, Tanzania's unemployment rate is approximately 11 percent,[1] and 36 percent (2002 est.) of the country's population is living below the poverty line.[2] Annual GDP growth in 2007 and 2008 were 7.1 percent and 7.5 percent, respectively. Total health expenditure per capita was US$45 in 2006, significantly lower than the regional average of US$148. Table 1 provides an overview of income and health expenditure data. This assessment was limited to Tanzania Mainland. Data provided is for Tanzania Mainland, and data and findings are not intended to represent the situation in Zanzibar.

TABLE 1. INCOME AND HEALTH EXPENDITURE INDICATORS FOR TANZANIA, COMPARED WITH SUB-SAHARAN AFRICA AVERAGES

	Source of Data	Tanzania	Year of Data	Average Value in Sub-Saharan Africa	Year of Data
GDP per capita (constant 2000 US$)	WDI-2009	354.17	2007	1,003.21	2007
GDP growth (annual %)	WDI-2009	7.1	2007	5.29	2007
Per capita total expenditure on health at international dollar rate	WHO	45	2006	147.78	2006

Source: Health Systems 20/20 Health Systems Database, http://healthsystems2020.healthsystemsdatabase.org/reports/Reports.aspx. Accessed April 2, 2010.
Note: WDI=World Bank World Development Indicators, WHO=World Health Organization

1.1 HEALTH STATUS

Tanzania's health indicators continue to improve in critical areas such as infant and under-five mortality, use of insecticide-treated bed nets (ITNs), and contraceptive prevalence according to the preliminary results of the 2009/10 Demographic and Health Survey (DHS) (National Bureau of Statistics et al. 2010).

Morbidity and Mortality

Tanzania's life expectancy at birth is 52.46 years, just slightly lower than the regional average of 53.21 years. The country's infant mortality rate is 51 (per 1,000 live births), much better than the sub-Saharan Africa regional average of 79.05. Its under-five mortality rate is 81 (per 1,000) compared with 125 for the region. Maternal mortality ratio (per 100,000 births) was estimated at 454 in 2010, lower than both the regional average (832.16) and income group average (808.70) (2009 WDI); final results of the DHS 2009/10 should soon shed more light on this indicator.

[1] United Repubic of Tanzania Economic Survey, 2007. http://www.tanzania.go.tz/economicsurveyf.html
[2] *CIA World Factbook*: Tanzania. https://www.cia.gov/library/publications/the-world-factbook/geos/tz.html. Accessed August 2010.

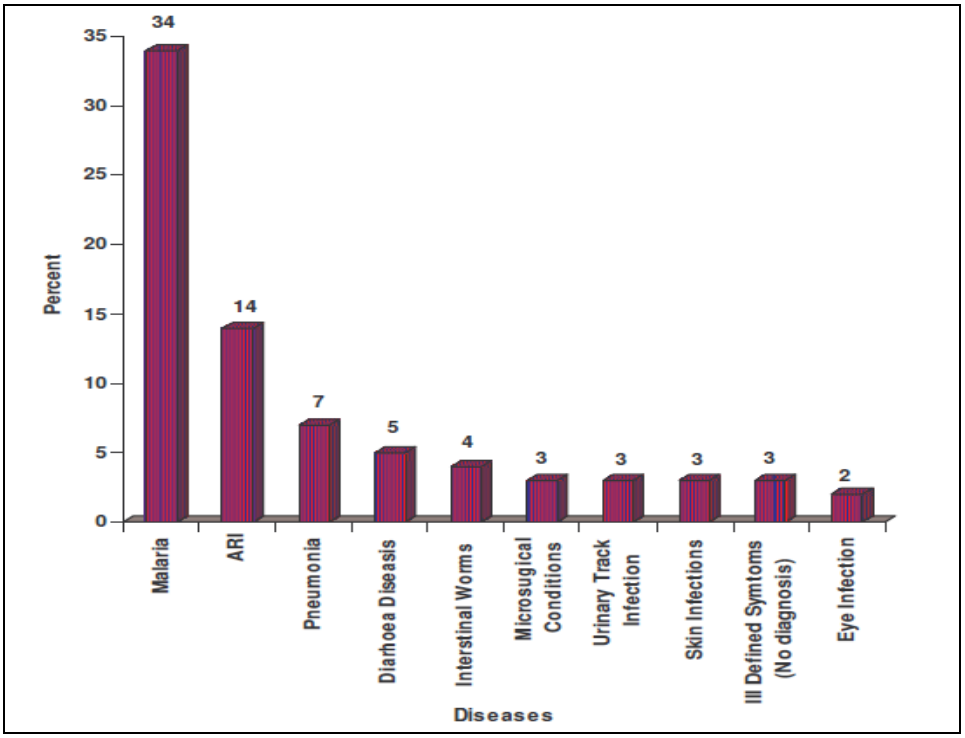
TABLE 2. MORTALITY IN TANZANIA, COMPARED WITH SUB-SAHARAN AFRICA AVERAGES

	Source of Data	Tanzania	Year of Data	Average Value in Sub-Saharan Africa	Year of Data
Life expectancy at birth, total (years)	WDI-2009	52.46	2007	53.21	2007
Mortality rate, infant (per 1,000 live births)	WDI-2009	--	2007	79.05	2007
	DHS 2009/10	51	2010*	**	--
Mortality rate under-five (per 1,000)	WDI-2009	--	2007	124.93	2007
	DHS 2009/10	81	2010	--	--
Maternal mortality ratio (per 100,000 births)	WDI-2009	950	2005	832.16	2005
	DHS 2009/10	454	2010	--	--

Note: WDI figures are from Health Systems 20/20 Health Systems Database, http://healthsystems2020.healthsystemsdatabase.org/reports/Reports.aspx. Accessed April 2, 2010. DHS 2009/10 data (National Bureau of Statistics et al. 2010) are preliminary.

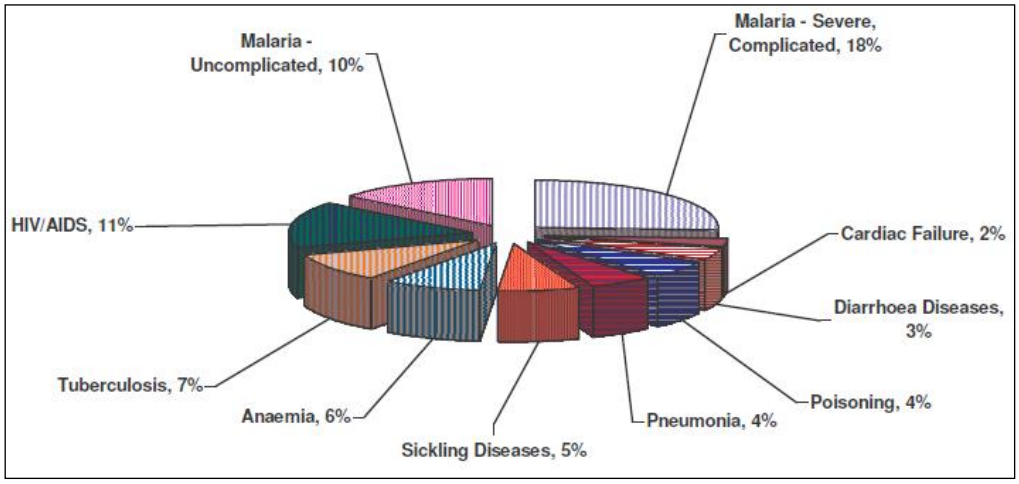
Figure 1 shows the top 10 reasons for outpatient visits to health facilities in Tanzania, and Figure 2 the breakdown of the top 10 causes of mortality. As the figures show, malaria remains the most significant cause of morbidity and mortality: it is the reason for 34 percent of all outpatient consultations by patients over five years old, and 28 percent of the top 10 causes of in-hospital deaths.

FIGURE 1. OUTPATIENT MORBIDITY FOR PATIENTS OVER FIVE YEARS OLD, 2006



Source: Department of Policy and Planning (2008)

FIGURE 2. TOP 10 CAUSES OF MORTALITY FOR ADMITTED PATIENTS AGE FIVE YEARS AND ABOVE, 2006



Source: Department of Policy and Planning (2008)

Ministry of Health and Social Welfare (MOHSW) sources show that scaled-up efforts to prevent malaria have led to confirmed reductions in malaria incidence (MOHSW 2009a). Prevention efforts have relied mainly on the use of insecticide-treated bed nets (ITNs), which has substantially increased over the past several years, as shown in Table 3.

TABLE 3. USE OF ITNS

	2009/10 DHS (Preliminary results)	2007/08 HIV and Malaria Indicator Survey
% households owning at least one ITN	63.4	39.2
% children under five years who slept under an ITN	64.1	24.7
% pregnant women who slept under an ITN	56.1	26.7

Source: National Bureau of Statistics et al. (2010), Tanzania Commission for AIDS et al. (2008)

HIV/AIDS continues to have significant impact on the health system. According to UNAIDS 2008, the prevalence rate for people ages 15–49 years in 2007 is 6.20 percent, higher than the 5.25 percent average in sub-Saharan African countries. HIV/AIDS is second only to malaria as the leading cause of mortality; it accounted for 11 percent of the top 10 causes of inpatient deaths in 2008 (Figure 2).

Reproductive Health

Tanzania's reproductive health indicators continue to improve over time and compared with the average values for sub-Saharan Africa, as shown in Table 4. The contraceptive prevalence rate, an indicator of a country's capacity to provide access to reproductive health services such as family planning, is estimated at 34 percent (National Bureau of Statistics et al. 2010). This is higher than the sub-Saharan Africa average of 19.35 percent in 2005.

TABLE 4. REPRODUCTIVE HEALTH INDICATORS IN TANZANIA, COMPARED WITH THE REGIONAL AVERAGE

	Source of Data	Tanzania	Year of Data	Average Value in Sub-Saharan Africa	Year of Data
Contraceptive prevalence (% of women ages 15-49)	WDI-2009	26.4	2005	19.35	2005
	DHS 2009/10	34	2010	--	--
Fertility rate, total (births per woman)	WDI-2009	5.16	2007	4.89	2007
	DHS 2009/10	5.4	2010	--	--
Pregnant women who received 1+ antenatal care visits (%)	UNICEF	78	2004	70.5	2004
	DHS 2004/05	94.3	2004	--	--
	DHS 2009/10	95.9	2010	--	--
Pregnant women who received 4+ antenatal care visits (%)	UNICEF	62.0	2004	53.4	2004
	DHS 2004/05	61.5	2004	--	--

Source: WDI and UNICEF data from Health Systems 20/20 Health Systems Database, http://healthsystems2020.healthsystemsdatabase.org/reports/Reports.aspx. Accessed April 2, 2010. DHS data from National Bureau of Statistics et al. (2005, 2010).

1.2 HEALTH SYSTEM POLICIES

Tanzania is currently implementing its third Health Sector Strategic Plan III, July 2009–June 2015 (HSSP III) (MOHSW 2008a), which is a guide for the development of council and hospital strategic plans and annual work plans. The strategic plan has been developed in line with the goals of the National Strategy for Growth and Poverty Reduction (MKUKUTA,) the National Health Policy 2007, and the Millennium Development Goals (MDGs), all of which recognize the improvement of people's quality of life as being essential to their ability to participate fully in the country's productive processes. The National Strategy for Growth and Poverty Reduction emphasizes health in its goal of "high quality livelihood," specifically access to primary health care (PHC), reduction of infant mortality, and access to reproductive health services. The National Health Policy 2007 provides the government of Tanzania's (GOT's) long-term vision for development of the health sector; it outlines policies and directives in several areas pertaining to the health sector including prevention and treatment of communicable and non-communicable diseases.

1.2.1 HEALTH REFORMS AND GOVERNMENT STRUCTURES

The GOT's focus on health care reform began in 1994 with the goal to improve access, quality, and efficiency of service delivery. The main focus of reform was to strengthen district health services and PHC, secondary and tertiary service delivery. An important part of this is the policy of Decentralization by Devolution (D by D), which transfers authority and responsibility for health care from the central MOHSW to Local Government Authorities (LGAs). This policy was enacted through the 1998 landmark legislation, Policy Paper on Local Government Reform, based on the principle of political devolution and decentralization of functions and finances within the framework of a unitary state.[3]

Changes to health care financing policy were another important aspect of reform. The new financing policy, adopted more than a decade ago, included cost sharing and user fees, as well as insurance

[3] COWI. 2007. *Local Government Reform Programme – Embedding Decentralisation by Devolution Across Government.* Assessment Report for the Ministry of Health and Social Welfare.

mechanisms for the health sector. Fees are collected at all health facilities, with a system of waivers and exemptions to protect the poor. Several insurance mechanisms were established targeting different populations (civil servants, rural population, etc.), but overall insurance coverage in Tanzania is still quite low.

Health services in Tanzania are now delivered through a decentralized system whereby local governments (under the Prime Minister's Office–Regional Administration and Local Government, or PMO-RALG) are responsible for service delivery through dispensaries, health centers, and district hospitals. The implementation of the decentralization policy is still the subject of major efforts under the Local Government Reform Program II to iron out lingering challenges in the separation of roles and responsibilities between PMO-RALG and other ministries, including the MOHSW. Efforts are also under way through various government initiatives (some with development partner support) to strengthen LGAs' ability to deliver services by improving their management capacity and programmatic and financial accountability and to streamline working relationships between ministries.

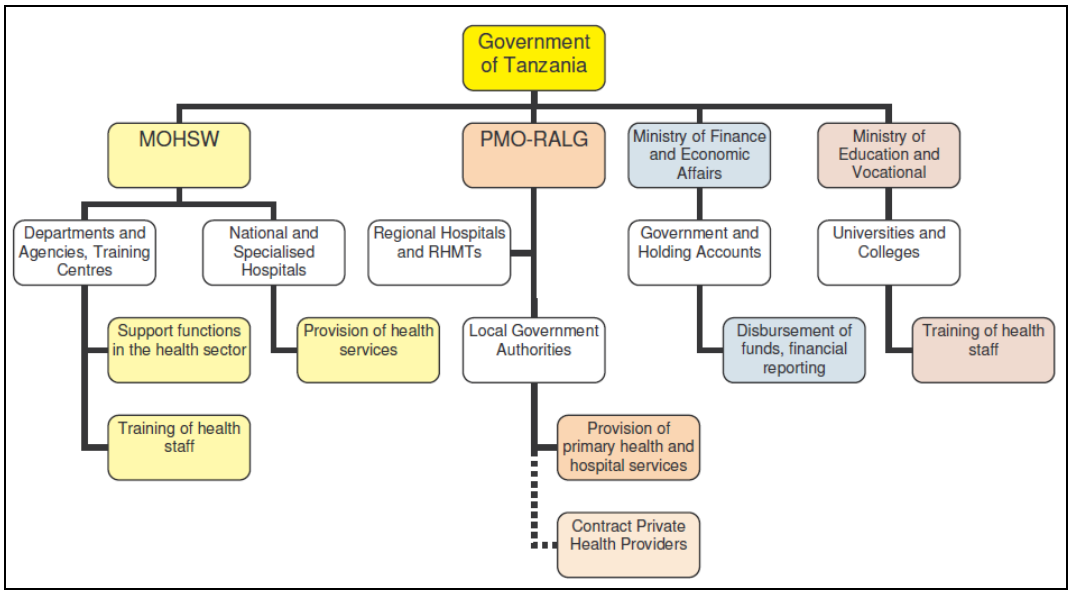
Under the decentralized structure, the MOHSW is responsible for:

1. Policy formulation, regulation, control, quality assurance; and monitoring and auditing;
2. Resource mobilization and allocation, coordination, and inter-sectoral linkages;
3. Management support to level-three hospitals, including national, referral, and special hospitals;
4. Public health-related interventions;
5. Health and social welfare research;
6. Management of executive agencies;
7. Supervision of preventive and curative health services delivery;
8. Training key professional health cadres and monitoring the quality of training offered by private institutions (COWI 2007).

However, to effectively carry out its responsibilities, the MOHSW must collaborate closely with PMO-RALG and the LGAs, which fund and oversee all district-based health activities. The MOHSW relies on LGAs to implement new policies, allocate resources, deliver health services, and provide health data.

In addition to working with LGAs, the MOHSW must also collaborate with several other ministries: the Ministry of Finance and Economic Affairs (MOFEA) to provide funding, and the Ministry of Higher Education, Science and Technology (MHEST) to train health workers. Figure 3 shows the responsibilities of the various ministries.

FIGURE 3. HEALTH SYSTEM IN OVERALL GOVERNMENT CONTEXT[4]



The delineation of responsibilities between the MOHSW and LGAs increases the complexities for the MOHSW in overseeing effective service delivery and consistent policy implementation. Informed by earlier experiences, the GOT is undertaking a new Local Government Reform Program (2008-2013), aimed at eliminating bottlenecks and improving coordination with line ministries.

1.2.2 EXPANSION OF PRIMARY HEALTH CARE

The MOHSW developed the Primary Health Service Development Programme 2007-2017 (PHSDP) in 2007. PHSDP is more commonly known by its Kiswahili name, Mpango wa Maendeleo ya Afya ya Msingi (MMAM). The MMAM aim was to achieve PHC services for all by 2010 with a focus on health systems strengthening. Although MMAM was initiated by the MOHSW, the program is implemented in collaboration with the PMO-RALG, Regional Secretaries, LGAs, and Village Committees.

The MMAM strategy aims to provide a health center in every ward and a dispensary in every village (except where there is already a health center) a, as well as to improve outreach services. This goal requires construction and rehabilitation of 8,100 health centers and dispensaries, 62 district hospitals, and 128 training institutions. According to the Health Sector Strategic Plan III (HSSP III), the total estimated cost of this initiative is Tsh. 11.8 trillion, or approximately US $8.4 billion (US$ 1= Tsh 1400). There is currently insufficient funding to fully implement the strategy, but efforts are underway to build new facilities. The impact of staffing these facilities on human resource (HR) needs is tremendous, particularly given the existing gaps in HR capacity.

[4] MOHSW, 2008a. Note that the Ministry of Higher Education, Science and Technology has replaced the Ministry of Education and Vocational Training.

1.2.3 ROLE OF DEVELOPMENT PARTNERS

Many development partners support the health sector. Most partners fund health activities through the Sector-Wide Approach (SWAp), established in 2000. An annual review process is used to monitor progress along agreed upon indicators. There are many working groups in place, chaired by MOHSW officials, to coordinate SWAp activities within various technical areas (maternal and child health [MCH], HIV/AIDS, health financing, etc.). These working groups provide a clear mechanism for coordination within technical areas, but coordination across the technical areas is more challenging.

Overall, the Tanzanian health system is very donor dependent. In 2004–06, donor funding contributed 44 percent of total health expenditures. Donor funding increased significantly over the last decade, primarily as a result of an increase in the HIV/AIDS program. Development partners are key contributors to the District Health Basket, which provides funds directly to districts for health activities.

1.2.4 PRIVATE SECTOR

The private sector has long played an important role in health services provision in Tanzania. Approximately 40 percent of all health facilities are private sector, including faith-based and for-profit providers. The National Health Policy 2007 acknowledges the contributions of the private sector and includes an objective of increasing private sector participation. Under HSSP III, collaboration with the private sector is identified as one of the 11 strategies for improving health service delivery. There has been experience of collaboration with faith-based providers, and government provision of medicines and secondment of staff to support these facilities, but more could be done to enhance their contributions. Collaboration with for-profit providers is only at a conceptual stage.

A national Public-Private Partnership (PPP) Steering Committee was established, and most regions have appointed PPP coordinators. An important activity for the committee is to develop a policy for engaging the private sector, with clear objectives and potential activities. A few councils have entered into service agreements with faith-based providers; and there has also been discussion of incorporating private providers into national insurance schemes. Better collaboration at the service delivery levels, however, will require national policy guidance.

1.3 PURPOSE OF THE HEALTH SYSTEM ASSESSMENT

This health system assessment (HSA) is designed to examine the health system as a whole to identify major strengths and weaknesses, and to provide recommendations of potential areas for system strengthening. By comparing the weaknesses across the six health system components, and exploring their inter-relationships, the recommendations draw out important cross-cutting issues that affect functioning of multiple health system components and multiple health programs.

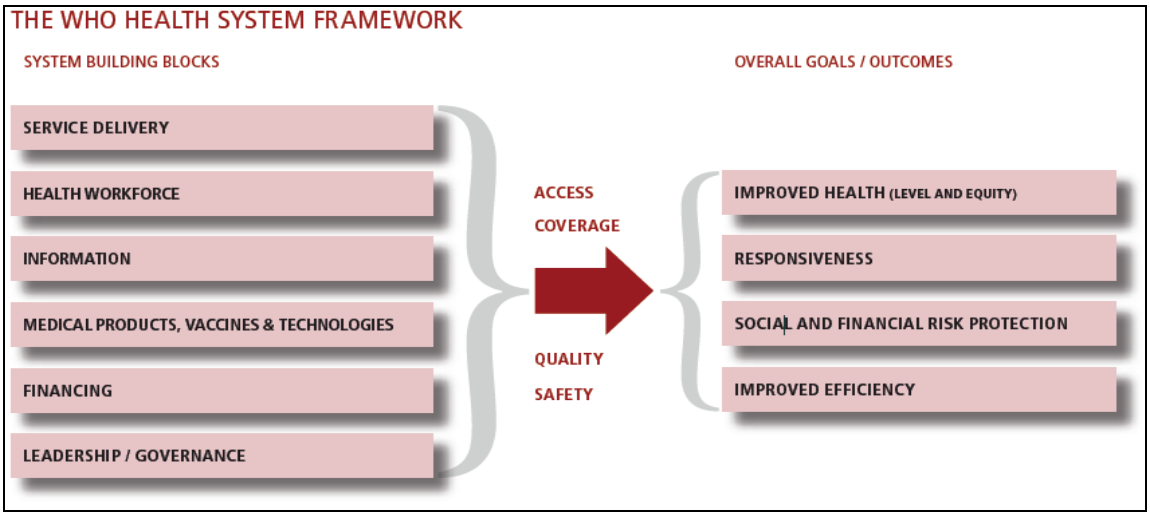
This assessment relies on findings of previous studies and evaluations that focus on individual system components (such as financing or pharmaceuticals), supplemented and validated by new data collection. Its goal is not necessarily to uncover new issues or provide new evidence, but rather, by examining all system components together, identify issues that if addressed would improve the functioning of many system components. It is also the hope that, because the main challenges identified here affect many parts of the health system and many health programs, there may be broad interest in the key recommendations.

2. METHODOLOGY

2.1 FRAMEWORK FOR THE HEALTH SYSTEM ASSESSMENT APPROACH

This assessment was adapted from the United State Agency for International Development (USAID) Health Systems Assessment Approach: A How-to Manual (Islam 2007), which, with this Tanzania HSA, has been applied in 19 developing countries. The HSA Approach is based on the WHO health systems framework of the six health system building blocks (WHO 2000) (see Figure 4). The assessment methodology consists of an analysis of the country's performance according to a set of internationally recognized indicators carried out through a review of available literature and statistics, key informant interviews, and field visits to confirm findings.

FIGURE 4. WHO HEALTH SYSTEMS FRAMEWORK



As a rapid assessment, the HSA team does not collect any primary quantitative data but rather consolidates and analyzes the available data across all components of the health system to assess how the system is performing overall and to identify obstacles and opportunities that cut across multiple system components.

This approach was adapted, in coordination with the MOHSW, according to their specific expectations, in early 2010.

2.2 PHASE 1: DOCUMENT REVIEW AND INTERVIEWS

The first phase of the Tanzania HSA consisted of desk research. The team reviewed studies, documentation, and data related to the health system broadly, as well as specific functions within the health system, obtained via Internet research and recommendations from Health Systems 20/20

consultants in Tanzania, contacts at the MOHSW, USAID/Tanzania, and key informants contacted prior to the visit to Tanzania. The list of references is provided in Annex A, and included documents such as:

- Targeted assessments and studies conducted by the MOHSW, World Bank, WHO, USAID, and others, covering a range of topics from the Community Health Fund to health information systems to medicines pricing
- Health sector policy and strategy documents, operational plans, and guidelines, primarily issued by the MOHSW
- Documentation from USAID projects (both ongoing and completed)
- Quantitative data from National Bureau of Statistics, MOHSW, WHO, and other sources

The team held multiple consultations with the MOHSW and USAID as well as other health partners via email and through telephone conversations to identify key informants at the national level, identify priority areas of interest, and select site visits.

2.3 PHASE 2: IN-COUNTRY DATA COLLECTION

In-country data collection was conducted primarily from July 26 – August 6, 2010, although some team members based in Tanzania met with informants outside of this period on a limited basis. The in-country data collection was targeted to fill information gaps identified in the desk review, validate desk review findings and identify any variance between policies and practices in key areas. Annex B provides a full list of persons interviewed.

The assessment team interviewed numerous stakeholders at the national level, including representatives of donor organizations, professional organizations, health training institutions, faith-based organizations (FBOs), and nongovernmental organizations (NGOs), as well as many professionals from the MOHSW. Responses were hand-recorded by the interviewers and examined for identification of patterns across stakeholders.

The team was in Mtwara region from August 1 – 4, and all data from Mtwara region, and Masasi and Nanyumbu districts were collected during that period. The HSA team met with members of the Mtwara Regional Health Management Team (RHMT), Council Health Management Team (CHMT) members in Masasi and Nanyumbu, and representatives of district hospitals, health centers, and dispensaries. At the health facilities, the HSA team met with health care providers and senior management; at dispensaries, they also met Community Health Committee members.

The Mtwara region was selected recognizing that it was a more remote region, and as such may have experiences and constraints that would not be representative of the whole country. National data does show that the challenges in Mtwara are more severe than in less remote areas. Although the findings in Mtwara Region cannot be generalized to the entire country, they do supplement findings from the central level, and provide a real picture of how the health system functions in more challenging areas.

Most interviews included several team members, allowing each team member a more complete understanding of the overall health system, as well as more targeted questions for the key informant given the focus and expertise of different team members.

Each HSA team member summarized findings for his/her assigned modules, and then together the team summarized the results, highlighting key findings across health system performance indicators, and developed a matrix that helped them to see key issues under each health system component and to see

linkages between components. From this exercise they were then able to identify the key cross-cutting system constraints and recommendations.

2.4 PHASE 3: REPORT WRITING

The findings of the team have been compiled in this report. After each team member prepared the findings from his/her module, the compiled report was reviewed and edited by the Team Leaders and the HSA Coordinator. Additional information and changes were then included by individual writers and team members from the MOHSW. A second draft was reviewed by a wider group consisting of Health Systems 20/20 senior management and technical experts. The second draft was also reviewed by MOHSW staff members and USAID/Tanzania. A third draft was produced for editing and approval by senior MOHSW officials.

3. HEALTH SERVICE DELIVERY

3.1 SERVICE DELIVERY OUTCOMES

The health indicators in Tanzania show a mixed picture, with areas of strength, particularly in the area of child survival, as well as areas for improvement. Table 5 provides a brief overview of some of the key service delivery impact indicators, compared with the average values for sub-Saharan Africa. The sections on service delivery that follow will provide more detail on observations, review of the published and grey literature, and views of interviewees regarding the strengths and gaps related to organization of service delivery; availability, coverage, and utilization of health services; quality assurance of care; and community participation in service delivery.

TABLE 5. COMPARISON OF KEY SERVICE DELIVERY OUTCOME INDICATORS IN TANZANIA AND THE SUB-SAHARAN AFRICA REGION

Indicator	Source of Data	Tanzania	Year of Data	Average Value of Sub-Saharan Africa [1]	Year of Data
Life expectancy at birth, total (years)	WDI 2009	52.46	2007	53.21	2007
Mortality rate, infant (per 1,000 live births)	WDI-2009	73.43	2007	79.05	2007
	DHS 2009/10	51	2010	**	--
Mortality rate, under five (per 1,000 live births)	DHS 2009/10	81	2010	**	--
Maternal mortality ratio (per 100,000 births)	DHS 2009/2010	454	2010	**	--
Prevalence of HIV, total (% of population aged 15-49	Tanzania HIV/AIDS and Malaria Indicator Survey	6.0	2010	5.75	2007
Number of hospital beds (per 10,000 population)	WHO	11.00	2006	14.81	2006
Percentage of births attended by skilled health personnel	WDI-2010	43.4	2005	51.45	2005
	DHS 2009/10	47.6	2010	**	--
DTP3 immunization coverage: 12-23 months(%)	DHS 2009/10	88	2010	**	--
	WHO	83	2007	85.22	2007
Contraceptive prevalence (% of women ages 15-49)	DHS 2009/10	34	2010	**	--
	WDI-2009	26.4	2005	19.35	2005
Pregnant women who received 1+ antenatal care visits (%)	UNICEF_Chidinfo.org	78.00	2004	70.5	2004
	DHS 2009/10	96	2010	**	--
Total fertility rate	Tanzania HIV/AIDS and Malaria Indicator Survey	5.6	2007/08	**	--
	DHS 2009/10	5.4	2010	**	--
Unmet need for family planning	DHS 2009/10	25	2010	**	--
Children under five sleeping under ITN	WDI-2009/10	16	2005	8.35	2005
	HIV/AIDS and Malaria Indicator Survey 2007/08	25.7	2007/08	**	**
	DHS 2009/10	64.1	2010	**	--
Children under five years with	DHS 2009/10	60	2010	**	--

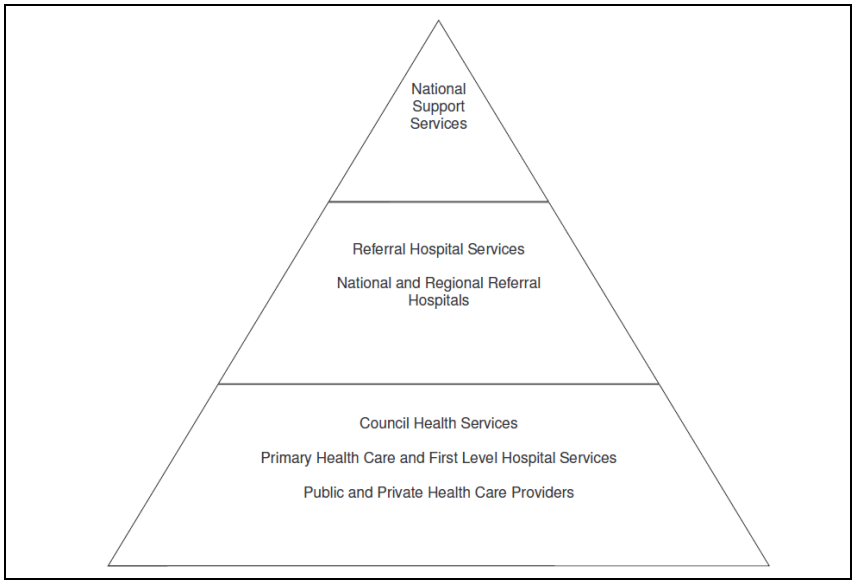
Indicator	Source of Data	Tanzania	Year of Data	Average Value of Sub-Saharan Africa [1]	Year of Data
diarrhea receiving oral rehydration	WDI-2009	53	2004	33.18	2005
ART coverage among people with advanced HIV infection (%)	WHO	14.00	2006	21.88	2006
	National Malaria Control Program (NMCP) 2010 Care and Treatment Report	80%	2010	**	--
Pregnant women received an HIV/AIDS pretest counseling during antenatal care (%)	DHS 2009/10	64	2004	**	--
			2010		

Sources: WDI, WHO, and UNICEF data from Health Systems 20/20 Health Systems Database, http://healthsystems2020.healthsystemsdatabase.org/reports/Reports.aspx. Accessed April 2, 2010. DHS data from National Bureau of Statistics et al. (2005, 2010).
Note: ART=antiretroviral therapy

3.2 ORGANIZATION OF SERVICE DELIVERY

As reported in the Tanzania Health Sector Strategic Plan II (HSSP III), Tanzania Mainland has 21 administrative regions that comprise 113 districts, 133 councils, and approximately 10,342 villages. These numbers may have changed somewhat since 2009, when HSSP III was written. The overall health service delivery structure is pyramidal (see Figure 5), with PHC services, public and private health care providers, as well as council health services at its base, regional health services in the middle, and national services at the top.

FIGURE 5. TANZANIAN HEALTH SYSTEM



Source: MOHSW (2008a)

Hospitals are divided into four levels: Level 1are district hospitals; Level 2 are regional hospitals; Level 3 are national/tertiary (Zonal) Hospitals; and Level 4 are specialized and super specialized hospitals. Health facilities also are organized like a pyramid, into six levels: Level 1 facilities are dispensaries; Level 2 facilities are health centers and first-level hospitals; Level 3 facilities are district hospitals; Level 4 facilities are regional referral hospitals; Level 5 facilities are national/tertiary hospitals (e.g. Muhimbili, Bugando and Mbeya) for general healthcare services at the zonal level [5]; and Level 6 are the very specialized referral hospitals (e.g. Kibongoto for TB, and Mirembe Mental Hospital), for disease specific conditions.

Tanzania has a total of 4,679 dispensaries and 481 health centers, located throughout the country. There are 18 regional hospitals that take referrals from the 55 GOT-owned district hospitals, 13 FBO hospitals, and eight consultancy and specialized hospitals, also spread across the country. In addition, there are 86 GOT-owned, parastatal, and private hospitals at the first referral level (MOHSW 2008a).

The MOHSW provides technical support functions to health facilities and health care providers at regional, council, and district levels and in addition has established several parastatal bodies to assist in its normative and guidance role. For example, the Medical Stores Department (MSD) is for procurement, storage and distribution of all commodities, Tanzania Food and Drug Authority (TFDA) is a drug regulatory body, and the National Institute for Medical Research (NIMR) is a research approval and implementing partner. PMO-RALG provides management, administration, and planning support for health facilities and health service providers, as well as maintaining payroll for staff.

The RHMTs are responsible for supervising management of health services within their region. They advise the Regional Secretariat on how best to improve and maintain the health status, as well as on overall planning, implementation, and monitoring and evaluation of quality health care within their region. The RHMT directly oversee regional referral hospitals, and monitor CHMTs. RHMT members also provide technical assistance to the regional facilities and CHMTs as needed. For example, they assist CHMTs in doing the Comprehensive Council Health Plans (CCHP) and managing health financing mechanisms within the council, as well as in developing health center and dispensary plans. In particular, they provide advice on construction and rehabilitation of health facilities; assess the distribution of health facilities within the councils in order to avoid duplications and promote use of existing FBO facilities; monitor the distribution of and construction of additional health facilities within the councils to ensure equity of access and efficient use of available resources, which includes existing health facilities; and monitor the staffing and equipping of all health facilities (MoHSW 2008d).

CHMTs are required to perform both technical and administrative clinical supervisory duties within district hospitals, health centers, and dispensaries (MoHSW 2008d). The Christian Social Science Council (CSSC) monitors FBO facilities and staffs its own CSSC zonal resource centers (different from the GOT zonal training centers [ZTCs]), which do clinical supervision within FBO facilities in the private sector.

[5] Level 5 facilities include Mbeya Referral Hospital in Mbeya city/region, Bugando Medical Center in Mwanza, Kilimanjaro Christian Medical Center in Moshi, Kibongoto National Tuberculosis (TB) Hospital, Muheza Hospice for palliative care, and Maweni Regional Hospital in Kilimanjaro region, Mirembe for mental health/psychiatric services.

3.3 SERVICE DELIVERY AVAILABILITY, ACCESS, COVERAGE, AND UTILIZATION

According to the HSSP III, approximately 90 percent of Tanzanians live within five kilometers of a PHC facility. The GOT has made it a priority to build enough facilities so that everyone can access health services. The MOHSW established MMAM (also known as PHSDP) to achieve PHC services for all by 2017, with a focus on health systems strengthening.

Despite the tremendous opportunity MMAM offers, many interview respondents at the central level told the HSA team that this initiative faces many challenges, mostly HR related. The MOHSW has already built new health facilities through MMAM, but many of them are idle because they lack staff and/or the quality of staffing is far below the minimum standards in Tanzania.

In Mtwara, the team verified these findings with several interviewees. For example, a District Medical Officer (DMO) in Mtwara mentioned that one of the new dispensaries currently has only one staff member, a Nursing Assistant, who is not qualified to provide clinical and public health services. This staff member does perform deliveries for those within nearby villages if they come to the facility. This example demonstrates the importance of making improvements upon this well intentioned program.to ensure that the HR issue is properly addressed. Strengthening human resources is a key priority for MOHSW and its partners. Significant efforts are underway to address HR shortages, including increasing the production of health worker capacity. HR-related issues will be further addressed in the human resources for health [HRH] module below.

There are issues related to user fees and exemptions that have important impact on service quality. Public health facilities in Tanzania charge user fees that contribute towards the cost of care, but several groups are exempted from paying the fees including children under five, pregnant women, those below a certain income level (if certified by a social welfare officer), the elderly, and those covered under vertical programs such as TB, HIV/AIDS, and diabetes patients In a resource poor environment, user fees are an important source of income for facilities to fund services, in addition to what the government provides. According to some interviewees, facility staff to feel resentment against groups that do not pay fees. These informants reported that exempted groups flood the public hospital system, contributing to depletion of the drug stock and the already high workload of health care providers. At one district hospital in Mtwara, up to 20 percent of inpatient adult beds may be occupied by exempted clients at any given time, whereas a nearby mission hospital controls the number of exempted clients that they receive. It was reported that commercial private sector facilities do not allow for any exemptions, since they are not subsidized by public funds for staff time, medications, and other commodities.

According to interviewees, serving public sector clients who are part of the National Health Insurance Fund (NHIF) also strain the health system, primarily due to overuse of services by its members and inefficient administration leading to very delayed reimbursement or non-reimbursement. NHIF clients and their employers contribute to the insurance fund through payroll taxes. These clients are not required to pay the facility upon receiving health services, with the cost of their services to be reimbursed by NHIF. In practice, facility administrative staff either fail to claim reimbursement properly, or there are severe delays in reimbursement. Private facilities seem to either accept fewer NHIF patients, or submit claims more efficiently. In Mtwara, for example, the district hospital saw 30–60 NHIF patients a day, compared with only five a day at the nearby mission hospital. According to interviewees, NHIF patients at the public hospital in Mtwara typically take more staff time and over-demand medication, which depletes the already meager available stock. Without timely (or any) reimbursement from the NHIF, the public facilities are not able to replenish their stock. NHIF is taking measures to address some of the issues in reimbursement procedures. The NHIF, Community Health Fund (CHF)

and other health insurance mechanisms will be examined further in the Health Financing section of this report.

When public facilities do not have enough pharmaceutical stock, patients are asked to buy medications at private pharmacies outside the hospitals, which negatively affects quality of service delivery. Outside pharmacists are often not qualified to suggest replacement of brand-name drugs with generic cheaper drugs. In addition, the HSA team observed that many pharmacies near the hospital in Mtwara are owned or managed by hospital staff.

The private sector, which includes FBO, NGO, and commercial facilities, has recently begun to enter into formal PPPs with local health authorities. CHMTs and private sector facilities are in the process of signing service agreements. The main aim of these agreements is to increase collaboration between the public and private sectors, and to increase the availability of quality and affordable health services to the general population in accordance with the National Health Policy and other guidelines (MOHSW 2007). These agreements will benefit both signatories, as the private sector seeks acknowledgement of the role they play in the health sector through the services they are already providing or will provide. Health officials, on the other hand, will be able to more effectively monitor the use of their funds within the private sector. They will also increase their mandate to monitor private sector dispensaries that may cause harm to the health system. The MOHSW promotes these agreements between CHMTs and FBOs (and they are in place in several CHMTs) but this has not happened with the commercial private sector.

3.4 QUALITY ASSURANCE OF CARE

The MOHSW has developed several policies, strategies, guidelines, action plans, and manuals that focus on general and disease-specific quality improvement. In addition, the Ministry either has developed, or is in the process of creating HSSP III-compliant Standard Operating Procedures, Treatment Guidelines, and overall standards. MOHSW has developed a Quality Improvement Framework Programme, with a corresponding accreditation system for public and private service providers to enhance quality of health service delivery in Tanzania.

Table 6 reflects MOHSW health service quality improvement initiatives to be introduced at all levels as part of the Quality Improvement Framework Programme.

TABLE 6 QUALITY IMPROVEMENT INITIATIVES AT DISTRICT, REGIONAL, AND CENTRAL LEVELS

Level	Initiatives to Improve Quality of Health Services
District	Accreditation of facilities and programs for the MOHSW will be introduced gradually, and implementation of the Quality Improvement Framework Programme will take place.
Region	Accreditation of referral hospitals will start, and Quality Assurance Units will be initiated. The Quality Improvement Framework Programme will be implemented. The RHMT will take up a coaching role in the program.
Central	Accreditation of national hospitals will start, and Quality Assurance Units will be initiated. The Quality Improvement Framework Programme will be implemented. Training institutions are accredited by NACTE, and the curriculum will include quality assurance concepts. In the Ministry, a regulatory body for accreditation will be initiated and programs will continue to provide guidance and support for quality improvement.

Source: MOHSW (2008a)

According to several interviewees at the central level and within Mtwara region, although the aforementioned quality of care-related policies and frameworks are in place, translation from policy into practice has been reported as a major challenge throughout the country. For example, currently, no laboratory in Tanzania is accredited with the exception of Mbeya Referral Hospital Laboratory (received formal WHO accreditation). The HSA team identified particular challenges that often contribute to poor service delivery outcomes:

Supportive Supervision and Mentoring

According to the recent the Controller and Auditor General (CAG) report, MOHSW has developed clear supervision guidelines which state that each health center should be visited four times a year and should pass through the four stages of: planning and preparation; conducting actual supervision to access performance; oral immediate feedback to health staff; and final written feedback and follow up action. Although these guidelines are in place, the CAG report found that supervision visits are not prioritized or planned accordingly. None of the 20 councils which were visited as part of the CAG study had a specific supervisory plan and although they had supervision route rosters, it does not explain how supervision is to be implemented in practice. This makes it difficult to determine which visits are for supportive supervision and which are for drug distribution or other purposes.

Additionally, the report explains that most council supervision visits were limited in terms of content. For example, performance issues are not adequately addressed during supervision visits and the supervision reports lack consistency. The report also mentioned that more documentation and feedback to health centers is needed. The written supervision reports are typically not distributed to health facilities. Few actions are taken after the supervision visits are conducted, and they are not linked to improving the performance of health centers.

At regional level, the CAG report states that CHMT performance in supportive supervision should be monitored by the RHMTs, which includes the Regional Medical Officer (RMO). However, in practice RHMTs often do not conduct supervisory visits as frequently as they should and the content is not comprehensive when the visits are conducted. In addition, RMOs, through their RHMT are required to ensure proper implementation of central level policies within their regions. According to the CAG report, this is currently not taking place, as competency and experience among regional level staff varies.

The HSA team found similar reports from interviewees at central level and in Mtwara. In addition the team found that although RHMTs have a budget line for quarterly supportive supervision, funds come later than scheduled making the planning of trips difficult. In reality, the RHMTs rarely conduct supervisory monitoring visits as a team. Individual members may join vertical program supportive supervision trips for specific program supervision but do not commonly address the health service delivery as a whole. Mission hospital clinical staff supervise mission health centers and dispensaries, but there is no coordination with the CHMT.

Despite the new national guidelines on quality improvement, clinical mentoring from the regional level to district or from district to health center level is not done frequently. While clinical mentoring is supposed to take place only within regional hospitals with medical specialists who accompany the RHMTs supportive supervision, specialists are rarely present at regional hospitals. If they are available, they are in short supply, which makes supervision and mentoring low on their list of priorities (the Lake Zone is an exception because there is a strict incentive driven supervision roster maintained).

Clinical Standards

According to the CAG report, the budget for each health center is set in accordance with the National Essential Health Package (NEHP). However, most of the staff at the health centers that were visited in the study were not aware of the package. Similarly, the HSA team found through interviews at the central level and in Mtwara that clinical standard operating procedures and the NEHP are not effectively translated or distributed to the regional and district levels.

The Referral System

The referral system in Tanzania also faces challenges for several reasons. First of all, many health facilities at lower levels are not qualified to implement an early identification and warning system, which is essential when referring patients. Secondly, most facilities do not have the ability to offer transport to patients upon referral. This becomes a cost for the patient, who may not be able to afford his or her own transportation to the referral hospital. A third challenge, which the HSA team observed in Mtwara, is that at regional and district levels few referrals seemed to come in from the lower levels with proper referral notes, which would entitle patients to free care. Instead, according to interviewees at higher levels, providers at lower levels claim that the paperwork is extensive. Although the HSA team did not find the amount of paperwork to be extensive, it appears that providers do not have the motivation to refer patients. Thus, patients are told to visit higher level facilities, but they are not sensitized enough to demand a referral letter. Therefore, they are paying for services at higher level facilities, even though it is not necessary.

Inefficient Management of Staff, Patient Flow, Medications

The recent CAG report studied 30 health centers and found that workload varies from facility to facility, but is not very high overall. Workload was measured by the number of unscheduled visitors to health centers in relation to the human resources. The report also found that pharmaceutical resources are similar at all facilities, irrespective of workload at a particular facility. The CAG report examined waiting and processing time at health centers, and stated that this amount of time varies from health center to health center. A majority of health centers within this study had a waiting and processing time of forty minutes or more, while 49% had a waiting and processing time of over an hour. Additionally, the CAG report assessed efficiency at health centers by comparing workload with waiting and processing time. The CAG assessment found that efficiency varies greatly between facilities.

The HSA team interviewed staff at regional and district hospitals in addition to health centers and dispensaries. Several interviewees at regional and district levels mentioned that despite HR, pharmaceutical, and equipment shortages that hamper service delivery, health facilities could better manage the resources that they do have. For example, these interviewees said that patients often wait for a long period while facility staff locate their files and register them within different books. Nurses often take on these activities, instead of delegating responsibility to clerical staff. Due to low morale, health care providers do not feel responsible for making the facilities run more efficiently.

Furthermore, according to interviewees at central level and within Mtwara, there are frequent stock outs of medications. Although there are simply not enough medications within facilities, there are ways that the drug stock could be managed more effectively, if staff were well trained. For example, according to interviewees, over-prescribing to NHIF patients occurs. Additionally,

the staff dispensing drugs often are unqualified to do so, and thus do not know how to use generic medication in place of brand-name versions.

Finally, staff time is not always used efficiently. According to many interviewees (and team observations in Mtwara), there are times of the day when facilities are overloaded with patients, and other times when patients do not come to facilities at all (particularly in the afternoon). For example, at hospital level in Mtwara, the HSA team observed long waiting times at 8am, whereby patients waited until approximately 10am. At 10am, the hospital staff rushed to see these patients until about 1pm. By 3pm, the hospital was empty. Instead of using the off-peak times to record data and take care of inpatients, many staff seemed to remain idle during those times.

Availability of Expertise and Tools

According to interviewees at the central level, as well as HSA team observations in Mtwara, basic medical life-saving equipment is not consistently available in hospitals. While both mission and regional hospitals have access to oxygen, EKG, and a laboratory with functional biochemistry and culture facilities, district hospitals are more basic, and even if they have these equipment, it is often nonfunctional due to lack of maintenance. This includes vital equipment such as blood pressure machines. In Mtwara, all sites that the HSA team visited had nursing and/or clinical officer training schools, with students doing clinical and nursing functions throughout. However, the training institutions had difficulty finding students who would stay and work in the region after graduation.

Vertical Programs

Vertical programs such as malaria control, TB, prevention of mother-to-child transmission (PMTCT), and HIV care and treatment delivery do have qualified staff, and are able to ensure commodities and services reach patients in a timely manner. In Mtwara, the HSA team noted the level of care through vertical programs was indeed visibly better than general outpatient care with better staff-client ratios; pre-coded history and clinical examination sheets; opportunities for in-depth counseling and medication provided on the spot, i.e., in the Clinton HIV/AIDS Initiative (CHAI)-supported CTC and the Elizabeth Glazier Pediatric AIDS Foundation (EGPAF)-supported PMTCT clinics. However, it is important to note that these programs are subsidized by substantial donor funding and this type of preferential support may contribute to inequities within the health system. For example, these vertical programs often compete with other health care services for quality health care staff, in an environment with already scarce HR. In addition, health staff working within vertical programs are often more motivated compared to other staff, because they receive incentives, whereas output oriented results based financing does not currently occur within non-vertical programs. This presents a problem in the delivery of other health services. In addition, although there is some integration within lower-level facilities, due to the lack of personnel, at the central level there is very little coordination.

Quality of Staff

According to interviewees at the central level and within Mtwara, facilities at all levels are not staffed appropriately. Those who should be in charge are either not present or do not have the qualifications to meet minimum quality of care standards; many serve in an acting position, without decision-making power.

Staff Morale

Staff morale is a challenge given a heavy workload, with limited appreciation or incentives. Upon interviewing nurses in Mtwara, there was overall agreement that there has been a shift in attitude toward and care for patients over the last 10 years. Most nursing roles, beyond providing medicines and injections, have been shifted to relatives, such as washing and dressing patients, accompanying them to the toilet, and offering a bedside talk and/or counseling. According to the nurses interviewed in Mtwara health facilities, this tends to be the case even in the presence of student nurses.

Quality Issues in the Private Sector

Many private facilities do not have the qualified staff needed. According to several interviewees, this is partially due to the fact that the GOT has raised the salaries of all public sector staff. Therefore, there has been an exodus of qualified staff within the private sector who are moving to public sector facilities. A doctor from one private facility in Dar es Salaam mentioned that while senior doctors and facility staff spent time and effort to train new staff who are recent graduates of training institutions, it is difficult to retain these new staff. Typically, after receiving training, these staff leave to seek better remuneration in public sector facilities. In rural areas, facilities face challenges in retaining staff due to lack of incentives such as electricity, proper housing, and a good school system nearby.

Another important quality-related issue within the private sector is that smaller private pharmacies, which are only supposed to offer part 2 services (nonprescription medication), often go beyond that and dispense prescription-only medications over the counter, when they are unqualified to do so. In some cases, small private dispensaries go so far as offering IV drips and other services.

Because CHMT staff have such a large workload, they often focus on the public sector, although they are meant to also monitor the private sector.

In addition to the issues mentioned above, contrary to what is expected, the HSA team found that in Mtwara, public health facilities are often very expensive for patients. On top of user fees, patients are required to pay for laboratory tests and medications (which may be out of stock and require the patient to buy from a more expensive nearby private pharmacy). Although services at some public facilities may cost the patient more, the quality of services provided is not necessarily better than at commercial private or FBO facility. In fact, in Mtwara, the assessment team found that the mission private hospital, Ndanda, was better value for money for the patient than the district and regional hospitals. The mission hospital not only has a better staff/bed ratio, necessary equipment, running water, and medications, but it was actually less expensive to the patient than the district and regional hospitals (a fee of Tsh 10,000 for two weeks, which includes the registration fee, medications, and laboratory fees). It must be borne in mind that the private hospital is most likely better resourced than the public hospitals, which includes receiving in-kind contributions of staff and equipment. This unique finding requires further research on a larger scale to validate what the HSA team observed in Mtwara. Table 7 compares the 'value for money' between the district government hospital in Masasi, with Ndanda mission private hospital and the government regional hospital (Ligula).

TABLE 7. COMPARISON OF 'VALUE FOR MONEY' IN THREE HOSPITALS IN MTWARA REGION

	District Government Hospital Masasi	Mission Private Hospital Ndanda	Government Regional/Municipality Hospital Ligula, Mtwara
Quality of Services			
Nursing officer/nurse-midwife staff bed ratio	280 beds, 66 nurses 1:4.2	300 beds 98 nurses: 1:3.1	316 beds 87 nurses 1:3.6
No. of clinicians	2MO 8AMO 22CO	2 Specialists 4MO 7AMO 4CO	8MO 7AMO 13 CO
Running water	No	Always	Irregular
Tools functional (BP machine each ward and OPD)	No	Yes	Yes
Standard operating procedures	Not visible	Here and there	Here and there
Supervision/mentoring	No	Senior staff mentor junior	Rarely
Costs in Tsh.			
Registration	1, 000 once OPD and IP	IP: 10, 000 for 2 weeks OPD 2500	1,000 once OPD and IP
Bed	Inclusive	Inclusive	Inclusive
Drugs	IP and OPD itemized to pay, often out of stock	IP Inclusive, OPD itemized to pay but available	IP and OPD itemized to pay, often out of stock
Laboratory	Itemized	IP inclusive	Itemized
Exemption policy	Up to 20% of beds adult wards, liberal	Up to 10% of bed, restrictive	Up to 20% of beds adults wards
Bed occupancy rate June 2010	60% (estimate)	70%	50-60% (estimate)
Value for money	-	++	+

Note: AMO=assistant medical officer, CO=clinical officer, OPD=outpatient department, IP=inpatient

3.5 COMMUNITY PARTICIPATION IN SERVICE DELIVERY

The GOT is committed, through its policies, to empower individuals and families at the community level to take ownership of their own health outcomes and become more involved in health promotion, prevention and care. The Leadership and Management section below will further address the ability of the community to demand their right to quality health services.

The MOHSW and PMO-RALG have developed and formalized community-level committees to advocate for responsible health facility management and quality health services. Health facility committees are tasked with strengthening community-level decision making about facility matters, including funding-related decisions. Village health committees are also a mechanism for community members to get involved in advocating for enhanced service delivery. These committees are supposed to collaborate with ward development committees to ensure community health priorities are included within ward development plans (MOHSW 2008a).

However, according to several stakeholders at the central level and within Mtwara region, the community-level structures are often not active. In Mtwara, the HSA team spoke with the chairman of a

village health committee, who was quite active in communicating between the ward, dispensary, and fellow community members. Overall, however, the influence on council-level bodies seemed haphazard and not very effective. It is important to note that this particular chairman's village was nearby the dispensary. According to interviewees, most committees that are not close to the facilities are much less active, if active at all.

On the other hand, vertical programs do have mechanisms for incorporating community voices, as they demand quality health services. HIV/AIDS care and treatment programs supported by development partners have created active ways to involve people living with HIV/AIDS (PLWHA) support groups, in planning, meeting structures, and actual service delivery. For example, CHAI facilities have trained and seconded "expert patients," who are HIV-infected patients on treatment. These experts get a monthly stipend and assist counseling, testing and care and treatment programs within facilities as file organizers and peer educators. The Tunajali program enlists patient tracking coordinators, who are members of home-based care programs, who attend to CTC patients. EGPAF, International Center for AIDS Care and Treatment (ICAP), and Tunajali programs have trained mother-to-mother peer educators who assist in PMTCT clinics. It should be noted however, that as stated above, vertical programs are highly funded by donors and thus it is difficult to compare them with the overall PHC system.

Additionally, home-based care partners such as PASADA, Pathfinder, Family Health International (FHI)/Deloitte Tunajali have created forums and written directories of health services whereby community members and staff can learn about where to access health and social services, what times of day they can access them, as well as information on the continuum of care they should expect to receive within health facilities.

The Swiss Development Corporation's (SDC) Community-Based Health Initiative has also attempted to promote community participation. This program, piloted in Dodoma, seeks to achieve health improvements in the larger community through technical and financial support to demand driven grassroots initiatives and empowering communities to be more strongly engaged in governance and financial aspects of health sector reform. The project employs the following strategies (Hilber et al. 2009):

- Support demand-driven community-based health initiatives
- Give special attention to vulnerable and marginalized community groups
- Network and cooperate with governmental and nongovernmental stakeholders
- Hold communication campaigns on special topics (health sector reform, sensitive issues, etc.)
- Analyze and document experiences of lessons learned
- Share experiences in the policy dialogue

The lessons learned from the initiative and other programs mentioned above may assist other donors and implementing partners to build capacity within community groups within the current GOT health service delivery structure. However, more attention needs to be paid to ensuring that communities are effectively able to demand quality health services. Several interviewees at the central level mentioned that the current working group structures and the health-related associations are often disconnected from the community level. Thus, the community voice does not reach policy level.

3.6 KEY FINDINGS AND RECOMMENDATIONS

Findings

- Health status indicators are improving, including infant and child mortality rates, immunization coverage rate, and contraceptive prevalence.
- There has been great progress in control and treatment of HIV/AIDS, with 80% ART coverage among people with advanced HIV infections.
- According to HSSP III, approximately 90% of Tanzanians live within five kilometers of a PHC facility. The Government of Tanzania (GOT) demonstrates continued commitment to primary health care (PHC.) The MMAM initiative to construct new facilities provides an excellent opportunity to improve service delivery.
- The MOHSW recognizes the importance of private sector providers, and has recently begun to develop mechanisms for better collaboration with the private sector.
- Clinical supervision could be more effective. Health facilities are not receiving enough feedback and encouragement from supervisors. Individual performance appraisals are not institutionalized and not linked to promotions or demotions. The facility staff are not monitored as frequently and as comprehensively as needed, which may lead to diminished motivation to improve quality of care. Finding a way to let health management teams work on performance based financing related solutions may be a solution worth considering.
- Although it is widely acknowledged that there are HR, commodity, and equipment constraints, most health facilities could be using the resources they have in a more efficient way.
    - Management of patient flow is often not efficient and clinical staff generally do not consider these types of management responsibilities as part of their role, nor do they have the skills to make the necessary improvements. This contributes to higher provider workload and increased waiting time for patients.
    - Stockouts of medications could be less frequent if pharmaceuticals were managed more efficiently (e.g. increased knowledge of generic vs. brand-name drugs, less overprescribing of medicines, control of NHIF patient demand for medicines).
    - Overuse of facilities during peak hours, and underuse at other times of the day. Health center and dispensary staff could use the slow periods to record data, take care of inpatients, etc.
- Many facilities constructed recently through the MMAM initiative are not fully staffed. The MOHSW is currently working towards combatting this issue (HR issues will be discussed further in the HRH section of the report).
- Vertical programs such as HIV/AIDS, TB, and malaria control programs have positive and negative impacts on overall service delivery:

    Positive:

    - The vertical programs appoint their own programmatic and technical supervisory staff, who make sure that appropriate procedures are being followed and do capacity building of counterparts in government services.

- Vertical program staff are able to ensure that pharmaceuticals and commodities in general are properly forecasted, procured, distributed, and utilized in a timely manner.
- At the facility level, services are fairly integrated on a day-to-day basis, e.g. PMTCT within RCHP; TB/HIV; family planning/CTC (planned).

Negative:

- Vertical programs, which are highly funded by donors, compete for quality staff within councils that already have HR shortages, particularly at the supervisory level. However, they may also have the capacity to hire new staff who can, in the future, be absorbed by the Council, hence improving performance of the district.
- Although health care centers and dispensaries integrate services as much as possible, this is only because they are short staffed. In practice, facilities often have to allocate separate rooms for vertical program equipment, pharmaceuticals, staff or services.
- Integration of these vertical programs within the overall PHC system is a challenge since one is overfunded and the other is underfunded. Strict donor funding and reporting streams limit central-level coordination between vertical programs and even between components of the same program, e.g., prevention vs. treatment of HIV/AIDS.

- Private sector facilities face challenges in retaining qualified staff.
- Some smaller private dispensaries go beyond what they are qualified to do, and prescribe medicine or provide other health care services.
- Although there are written standard operating procedures and a National Essential Health Package at the national level, lower-level health facilities are not always aware of them, nor can they meet the standards due to shortages of HR, equipment, and commodities.
- The referral system faces some challenges since many facility level staff are not able to implement an early identification and warning system which is essential when referring patients, transport cost is a burden, and health facility staff at lower levels do not always have the motivation to provide a referral to patients in need. Although the MOHSW does recognize official community-based structures, they are often inactive or ineffective. In most cases, central-level associations and working groups could do more to reach out to hear from communities when developing and implementing policies and programs.

Recommendations

- RHMTs and CHMT monitoring and supervisory responsibilities should be re-examined to determine whether these bodies are able to realistically implement all of their responsibilities.
- RHMTs and CHMTs need more funding to conduct supportive supervision on a regular basis (including money for transport).
- Strategies for on-the-job coaching and mentoring should be put into practice. On-the job training is particularly suited to skills such as patient flow and facility management, or clinical supervision. It also more effective than general in-service training, which takes providers and their supervisors away from the job.
- Management training (on how to efficiently manage resources) should be added to the MOHSW

pre-service training curriculum for clinical officers, pharmacists, nurses, and other health care professionals.

- Vertical programs should pay for the secondment of technical staff to fill existing positions that the government is not yet able to fill.
- Provide more guidance to CHMTs on models for collaborating with the commercial private sector, similar to the FBO service agreement implementation process.
- A mechanism should be created to improve feedback from the community that can be taken up to central-level working groups and health-related associations.

4. LEADERSHIP AND MANAGEMENT

4.1 INTRODUCTION

WHO defines governance as the role of the government in health and its relation to other actors whose activities impact on health (WHO, 2007.). In laying the groundwork for this HSA, the assessment team and high-level Tanzanian stakeholders defined governance more narrowly, as "leadership and management," because "governance" had various meanings for in-country stakeholders.

Leadership and management is particularly important in Tanzania because under D by D, LGAs are responsible for delivering and managing public health services, and thus need good leadership and management skills. As Tanzania's HSSP III points out, leadership and management is a cross-cutting issue that is essential in all aspects of the health system.

For the purposes of this HSA, leadership and management refers to:

1. the process by which governing bodies are selected, monitored, and replaced;
2. the strategies and capabilities of governing bodies to effectively formulate and implement sound policies; and
3. the formal and informal linkages among citizens, private organizations, and the state that influence the interactions among them, as well as the outcomes of those interactions.

Health leadership and management involves actors at three levels: state, health provider, and beneficiaries. State actors include politicians, policymakers, and government institutions, such as the MOHSW, parliamentary health committees, regulatory bodies, and the judicial system. Health service providers include health facilities, FBOs, equipment manufacturers, and insurance agencies. Beneficiaries include health service users and the general public.

Organizational flowcharts in Annexes C and D show, respectively, the interrelationships of the three levels (central, regional, council) of the health sector and the organization of the MOHSW.

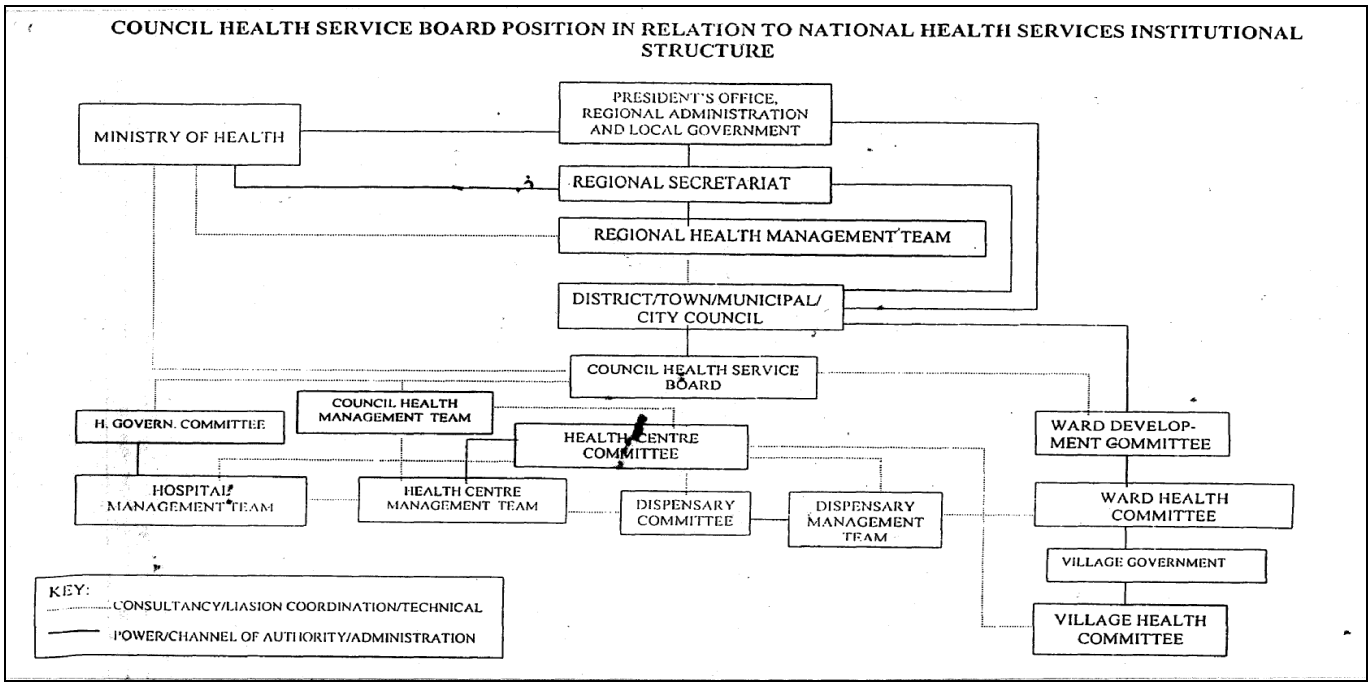
4.2 RESPONSIVENESS

Critical to a well-functioning health system is the extent to which government responds to public and civil society needs, preferences, and demands; answers citizens' complaints or requests for information; and incorporates community-level opinions into policy. The GOT has clear written guidelines on how information should flow within the system, as well as on staff roles and responsibilities at all levels. However, these guidelines are often not implemented as intended. This section will reveal some key reasons for this.

To properly understand the government's responsiveness in the health sector, it is important to note reporting relationships and power dynamics between the central government, regional government, and LGAs. These relationships often affect the government's ability and/or willingness to respond. At the central level, the MOHSW oversees technical aspects of regional and LGA activities, and PMO-RALG

oversees administrative aspects. Regional Secretariats oversee 28 regions. At the LGA level, district, town, municipal, and city councils oversee 133 councils. Within the government structure, councils are in charge of managing and delivering public services to their constituents, including health care. The organizational chart in Figure 6 further depicts these relationships.

FIGURE 6. PMO-RALG AND MOHSW ORGANIZATIONAL RELATIONSHIP



Source: Technical Review of Council Health Service Boards and Health Facility Governing Committees in Tanzania (2008).

4.3 ACCOUNTABILITY

Accountability is a key element of Leadership and Management. RHMTs supervise and hold CHMTs accountable within the health system. CHMTs prepare the CCHP on an annual basis; this plan holds the CHMTs and their councils accountable to the central health authority and their constituents.

Although the above-mentioned structures are in place and CCHPs are developed annually, several interviewees told the HSA team that LGAs are not typically accountable to the public for spending within the health sector. This is mainly because the public is often not aware of the money that should be allocated to health care at the community level. Per government guidelines, community members should lodge their complaints about CHMT practices with the District Executive Director (DED). However, interviewees pointed out, in practice, DEDs often are not actively involved in enforcing CHMT roles and responsibilities.

The requirement that government officials post health budget information on notice boards within each region, LGA head office, and Ward is a partial solution to the accountability problem.

Despite these efforts, community-level stakeholders often do not know which communication channels to use to get their feedback or complaints across. Thus, many public or stakeholder complaints/issues get lost within the system and/or are not handled, and therefore, many health sector managers do not feel accountable to the public.

This problem is exacerbated by HR constraints. There are not enough qualified staff to receive and manage input or to promote awareness of the appropriate feedback structures. In fact, according to several stakeholders at the central level and within Mtwara, many of the community-level governing bodies are staffed by unqualified volunteers and thus are not functional in practice. Community-level bodies that are staffed are often overburdened with work and unfamiliar with all their roles and responsibilities.

For example, the Mtwara RHMT reported that only two of what should be seven CHSBs actually exist in the region, and the members of the established CHSBs do not truly understand their roles and responsibilities. Their meetings typically last only an hour and do not address substantive information and issues. This is testament to the ineffectiveness of the RHMT in this respect since one of their functions is to ensure that these boards function.

An additional challenge at all levels within the health system is that accountability, supervision, and reporting often depend upon one person. For example, at the district level, the DMO often is the main person to supervise all health facilities, address all concerns and complaints, manage the district hospital, run the CHMTs, and sit and participate in the Full Council. This has two major effects. First, the quality of supervision diminishes because DMOs are frequently overburdened and unable to visit remote health facilities. In Mtwara, for example, the Acting DMO stated that it is not possible to visit some remote facilities more than once a year. This directly impacts the morale of health care staff, and ultimately the overall quality of health services.

Secondly, because DMOs have so many obligations, they rarely have enough time to address any particular issue with the depth that is required. In addition, DMOs, who are typically the only public medical doctor in the council, spend less than 5 percent of their time actually practicing medicine.

Overall, government officials at all levels do not provide adequate feedback within and to those at lower levels. According to interviewees, it is common for workers to only hear negative feedback once mistakes have been made. Although the Open Performance Review Appraisal Method has recently been rolled out in Tanzania, these interviewees mentioned that in practice health facility staff are not receiving the feedback necessary for performance improvement. In Mtwara, interviewees revealed that although information regarding rules and regulations exist, supportive supervision is lacking.

4.4 COMMUNITY-LEVEL VOICE: WITH GOVERNMENT

For a health system to function effectively, technical experts, civil society organizations (CSOs), and health beneficiaries must be able to effectively advocate to government for their right to quality health services and have an influence on health-related policies. In theory, in Tanzania, the public can advocate for quality health care through channels such as the media, professional associations, NGOs and CSOs, village health committees, health facilities, the DMO, the DED, the RHMT, their member of parliament, or even directly to the MOHSW Permanent Secretary. Although GOT has made an effort to allow for participation from the community in development of key policies, interviewees mentioned that the community voice is often not adequately heard. According to these interviewees, members of civil society are not generally able to participate in the establishment of policies, plans, and budgets for health services. And even when the government gets accurate community-level input or feedback, it cannot respond due to larger constraints such as shortages in funding, HR, and commodities.

Good community participation in Tanzania is constrained by other factors, too. Members of the public often are not aware of what they can or should hold their governing bodies accountable for. If community-level stakeholders do not understand central-level policies, effective organization and

advocacy becomes a challenge. Many at the community level feel dependent on what is given to them under the current system, and do not believe they have the right to ask for better quality health services or to challenge unethical practices. For example, according to the grey literature as well as patients interviewed in Mtwara, it is common practice for health facilities to charge an extra fee for something as simple as locating a patient's file. Although patients may know that this practice is not ethical, they do not believe that they have the right to complain.

Some groups are trying to change this, by giving the public more information. Donor organizations and NGOs support programs such as the Public Expenditure Tracking System (PETS), which will strengthen community-level capacity to more effectively advocate for funding. Additionally, information regarding health policies is readily available on-line; of course not all districts or villages have electricity or access to computers.

4.5 COMMUNITY-LEVEL VOICE: TECHNICAL INPUT AND OVERSIGHT

Stakeholder interviews in Mtwara revealed that citizens are concerned about drug and supply shortages, lack of long-term birth control, supplies, proper equipment, transportation to facilities, properly trained staff, frequency with which they have to pay for services, delay of funds, and the consistent high prevalence of HIV/AIDS.

There are public organizations that oversee the way in which providers follow protocols, standards, and codes of conduct in regard to medical malpractice and discrimination. Patients can also file complaints through health system channels. Typically at the facility level, patients give their complaints to a nurse, who files it with the appropriate district regulatory body. Central regulatory bodies encourage the district-level bodies to solve issues if possible. The central bodies will only get involved if there is a serious or multiple offenses.

Again, in practice, there are not mechanisms in place to oversee whether the responsible parties are actively addressing patients' complaints. District-level bodies often indicate that issues related to poor service delivery drug stock outs, HR shortages, delay of health basket funds, etc. are beyond their control.

The health system has established codes of conduct; however, due to HR constraints, there are challenges in monitoring and enforcing these codes. While civil society ideally should provide this type of oversight, due to the issues discussed above regarding lack of awareness of health care budgets and other aspects of the health system, this becomes a challenge.

Each region has different CSO. For example, in Njombe, an umbrella group comprising 300 CSOs and NGOs typically has quarterly meetings and works with councils and CHMTs on proposed projects and activities. Mapping of these organizations is a challenge because NGOs do not always share their plans or funding allocations. Thus, there is often duplication of projects and resources and it is difficult for the council to manage NGO activities.

Although patients can meet with directors of such health service organizations, there are no regularly scheduled meetings to seek patient input. When meetings do occur, issues are often not recorded and there is no formal procedure for follow-up.

4.6 INFORMATION REPORTING, FEEDBACK, AND LOBBYING

Within a well-functioning health system, the government has the capacity to fulfill its responsibility to utilize information and data to make more informed health sector policy decisions. Ideally, this information and data are to be reported to the government from different sources, such as service providers, NGOs, and other associations. These sources should also be able to lobby to advocate for policy change. However, in practice there are shortfalls in how information is recorded and reported. There are also challenges with supportive supervision of data collection, and feedback to those at all levels. Although it is possible for organizations to lobby for policy change, there are obstacles that hinder this process. This section will provide further details as to the reasons for these challenges.

At the central level, information is reported to three different ministries, and no ministry has the responsibility or authority to review all aspects of the data. This leaves ample room for information and data to be misplaced and the only data relayed are those that are relevant to each ministry – all data are not collated in a central location and analyzed to provide regional- and district-desired results or feed into relevant policy. Local governments rarely hear feedback from the reports they submit unless they have left out data or made a mistake. The importance of the data they collect is not communicated to them.

At the facility level, there are challenges with recording data, which exacerbates problems of accountability at the central level. Service providers do report information, including financing, surveillance, and program data that the government should use to monitor health system performance. However, the data collected are not always accurate. This is due to the challenges with unqualified personnel managing health facilities, mentioned in the sections above. Additionally, regional-level staff often have difficulty obtaining data from the community level. In Mtwara, for example, directors at the regional level explained that while they were able to review district-level data, they had limited access to community-level data. This affects RHMTs' ability to provide supportive supervision, one of their roles and responsibilities.

It is possible to lobby within the current health system. For example, organizations such as NACOPHA, which lobbies for the rights of HIV/AIDS victims, have lobbied government officials to promote the rights of HIV-positive individuals. However, it is unclear whether policies have been revised based on their advocacy.

At the community level, many lead agents from FBOs are able to lobby to be invited to government-sponsored health events. Providers advocate to government through associations, NGOs, the Technical Committees of the SWAp, as well as regional forums. It is expected that information collected at the community level will be passed up and addressed at national-level meetings. However, in practice, many issues are presented at national-level meetings and there is rarely enough time to hear or address all of them. Currently the central level is discussing an initiative to construct parliamentary branch offices within constituencies, to ensure that a greater number of concerns are heard and addressed.

In addition, associations often hold forums or press conferences to bring attention to major issues. However, this can be costly and most associations do not have adequate funds to host many events. According to interviewees, associations also have the responsibility and authority to bring their constituents concerns directly to the Permanent Secretary. However, it is difficult to schedule these meetings.

4.7 KEY FINDINGS AND RECOMMENDATIONS

Findings

- The MOHSW has developed strategies and structures to encourage stakeholder participation in accountability and policy making, such as through CSO involvement in policy discussions, or citizen participation in CHSBs.
- One of the goals of decentralization is to provide more local ownership and oversight of health services.
- Building consensus and coordination between all relevant parties to identify common challenges, solutions, and actions is essential. Many of the problems which are voiced require action from multiple ministries and parties. For example, in order to decrease delays in funding that result from processes at the central level, actions need to be taken by the PMO-RALG, MOHSW, Health Basket Fund, and MOFEA; however, there should be more mechanisms in place at the implementation level to ensure that all relevant ministries engage, participate, and respond to vital health policy planning and implementation issues.
- Accountability, willingness, and capability to hold organizations and individuals responsible for their roles, responsibilities, and actions is often a challenge in Tanzania.
- While clearly written guidelines and laws exist, they are not always known, followed, or understood. Guidelines are often in English and are too complicated for individuals with lower levels of education.
- The central level should check for understanding of guidelines and policies more frequently. Recently the Technical Review of the CHSB found that every district had interpreted the guidelines differently. The MOHSW is now developing a program for a facilitator to go out to each region and inform areas of guidelines.
- The process for internal communication could be improved since at times it is slow and lengthy and severely inhibits fast response to issues.
- Internal working groups could be more effective. Many times there is low attendance at meetings and the meeting discussions lack substance. Thus, these working groups have trouble making progress toward their milestones.
- Regional teams often have limited access to information both from the community and central levels. They are isolated even from their own region and only have access to information that the districts choose to provide them.
- Many governing bodies or committees (such as CHSBs) that should be operational are not in practice; others are operational but do not function because members do not understand their roles and responsibilities.
- There is a need for CSOs to build their advocacy skills to better engage health managers and officials.
- The mechanisms for feedback from the implementation level are limited. There could be more time and space for DMOs to ask questions and discuss issues that occur within their districts. When DMOs attend meetings and voice their concerns, there should be more for discussion and concerns.

- Reporting is taking place at all levels but the information needs to be analyzed or used to assist in decision making and management of the health system.

Recommendations

- Some signing authority should be delegated to the heads of each MOHSW division to improve the speed of processes.
- MOHSW, PMO-RALG, PO-PSM, and other ministries should put mechanisms in place to track the responsiveness of health officials to stakeholder input and how effective they are at meeting those needs.
- Where feasible, DMOs and other senior staff should delegate responsibilities to increase responsiveness to the community.
- Regular visits by the Permanent Secretary and other senior staff at MOHSW and PMO-RALG to each region, especially during the regional annual meeting, would ensure that the districts and regions feel that their concerns are being heard and that their challenges and situation are visually understood.
- A central data collection section should be created, where a team of analysts can receive and analyze data, generate trends, and share case studies, lessons learned, and best practices from every region. Information should be made available electronically where users can do searches according to their needs and interests.

5. HEALTH FINANCING

5.1 INTRODUCTION

The WHO (2000) defines health financing as the function of a health system concerned with the mobilization, accumulation and allocation of money to cover the health needs of the people, individually and collectively, in the health system. This HSA identified three key interrelated functions of health financing: revenue collection, risk pooling (leading to resource allocation), and health intervention purchasing.

Revenue collection is concerned with the sources of revenue for health care, the type of payment (or contribution mechanism), and the agents that collect these revenues. Health systems have various ways of collecting revenue, such as general taxation, mandated social health insurance contributions (usually salary-related and almost never risk-related), voluntary private for-profit health insurance contributions (usually risk-related), and community-based health insurance (usually not risk-related), out-of-pocket payment, and donations (WHO 2000).

Pooling of resources is the accumulation and management of funds from individuals or households (pool members) in a way that ensures individual contributors against the risk of having to pay the full cost of care out-of-pocket in an event of illness. Pooling is traditionally known as the "insurance function" within the health system, whether the insurance is explicit (people knowingly subscribe to a scheme) or implicit (as with tax revenues). Pooling reduces uncertainty for both citizens and providers (WHO 2000).

Purchasing of health services is done by public or private agencies that spend money to either provide services directly or to purchase services for their beneficiaries. Purchasing can be done passively or strategically. Passive purchasing implies following a predetermined budget or simply paying bills when presented. Strategic purchasing involves a continuous search for the best ways to maximize health system performance by deciding which interventions should be purchased, how, and from whom. In many cases, the purchaser of health services is also the agent that pools the financial resources (WHO 2000).

For the purpose of this assessment, the above conceptual terms provide a generic framework proposed for the descriptive assessment of the health financing in Tanzania.

5.2 BACKGROUND

Following independence in 1961, Tanzania, like many other countries in Africa, adopted free health care provision by abolishing user charges in government health facilities. In 1967, the Arusha Declaration marked the start of a series of health sector reforms aiming at ensuring universal access to social services to the poor and those living in marginalized rural areas. Ten years later, the GOT banned private for-profit medical practice and took on the task of providing health services free of charge to all individuals attending public health facilities. The period up to 1993 saw increased public provision and financing of the health sector. Financing the health sector was mainly through general tax and development assistance. However, the burden of providing free health care for all became evident amidst rising health care costs and a struggling economy.

The period since 1993 has seen big changes in health care financing policy in Tanzania. The central government started the health sector reform process to better utilize health resources and improve primary care access and utilization. This included the introduction of private financing in the form of user fees in public facilities and private health insurance schemes. In 1999, it introduced the Community Health Fund (CHF), which targets the poor and those living in rural areas, and in 2001, it introduced the aforementioned NHIF for all civil servants. Currently, there are government initiatives to transfer the management and administration of the CHF to the NHIF. More recent financing initiatives include TIKA (Tiba Kwa Kadi, the urban equivalent of the CHF), Social Health Insurance Benefit (SHIB) under the National Social Security Fund (NSSF), private insurance, and other micro-insurance schemes such as UMASITA (the Kiswahili abbreviation for Tanzania Informal Sector Community Health Fund) and VIBINDO (Kiswahili abbreviation for association of small industries and small business owners). All these financing reforms aimed at improving availability and accessibility of health care to all groups of people in the country, rural and urban.

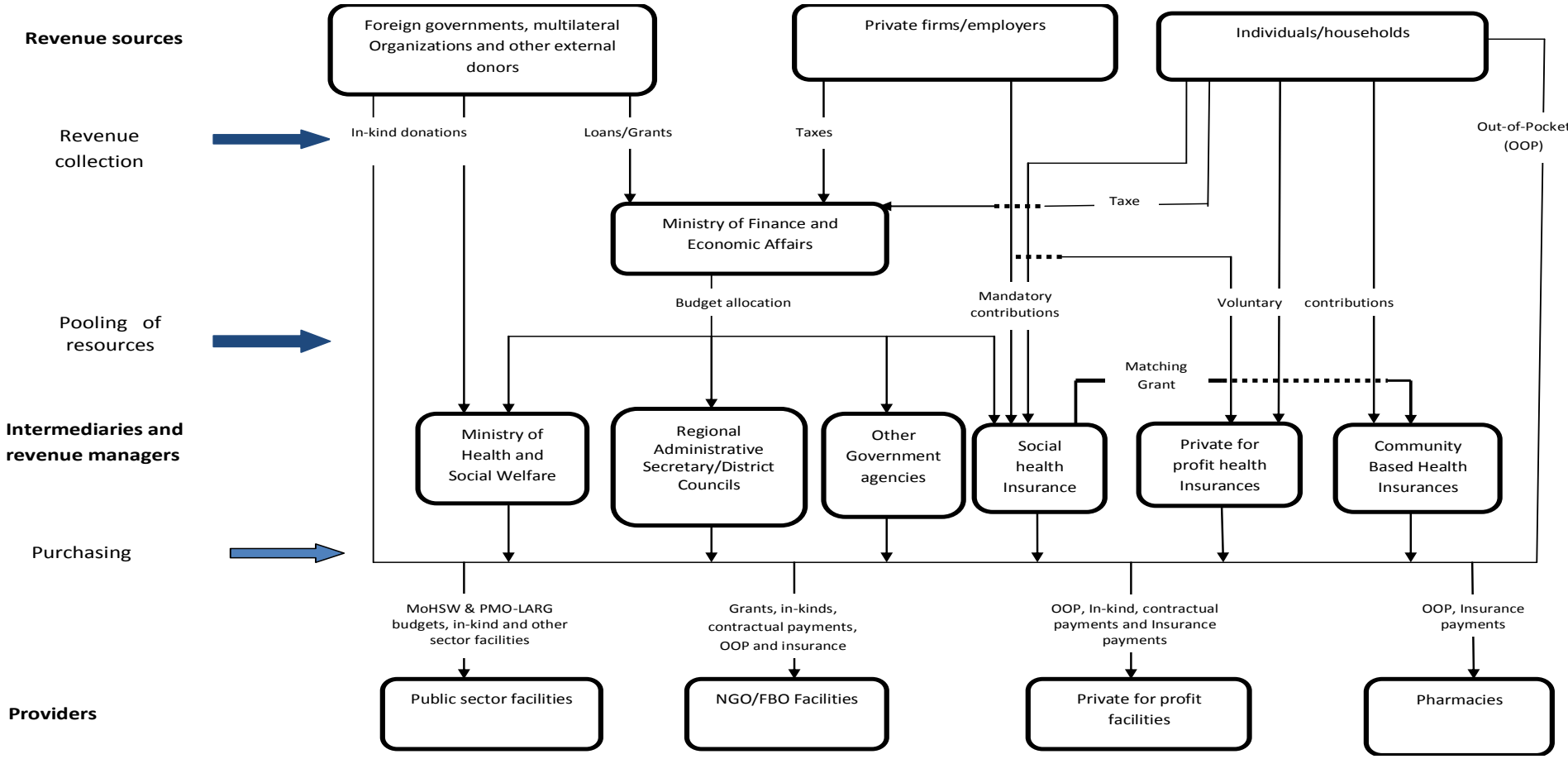
5.2.1 RESOURCE SOURCES

In Tanzania, resources for the health sector come from a number of possible sources. Figure 7 depicts the health sector resource flows. It shows that foreign governments, multilateral organization, and other donors, private firms/employers, and individuals/households are major sources of revenue in the health sector, adding to the government's contribution. The percentage share of contribution for each source is explained later in this chapter.

Contributions come in the form of taxes, in-kind donations, loans/grants, mandatory and voluntary contribution to insurance schemes, and household out-of-pocket payments. Pooling of resources is mainly done by the MOFEA, the MOHSW, other government agencies, and health insurance schemes (social insurance, private for-profit, and community-based). In most cases (excluding MOFEA), the same pooling organizations also purchase health services from various providers. The allocation formula for distributing pooled funds that come from government revenues (block grants[6]) and basket funds[7] is need-based, but primarily driven by population. Generally, the government assumes both the purchasing and provision of health care roles with the exception of few districts where public facilities do not exist. Health care providers include public sector facilities, NGO/FBO facilities, private for-profit facilities, and pharmacies. The methods employed in the purchasing of health care from providers include budget allocations, contractual payments, and insurance payments (fee-for-service and capitation) and out-of-pocket payments.

[6] Block grants are made by the MOFEA to LGAs (Councils).
[7] Basket funds are donor contributions that are pooled in a common "health basket" from which allocations are made to LGAs.

FIGURE 7. HEALTH SECTOR RESOURCE FLOW IN TANZANIA



Source: HSA Team

5.3 FINANCING SOURCES AND AMOUNTS

5.3.1 TOTAL HEALTH EXPENDITURE AS PERCENTAGE OF GDP

In Tanzania, total health expenditure as a percentage of GDP for years 2004 and 2005 was 3.7 and 4.9, respectively. Both amounts are lower than the sub-Saharan Africa regional average of 5.3 percent (WHO estimate for 2006) and World Bank estimates of 5.2 percent for low-income countries. Since 2004, total health expenditure in Tanzania has increased moderately to 6.8 percent of GDP in 2008 (see Table 8 for the trend over 2004 to 2008).

TABLE 8. TOTAL HEALTH EXPENDITURE AS PERCENTAGE OF GDP

Year	Tanzania	Sub-Saharan Africa (WHO 2006)	Low-income countries (World Bank 2006)*
2008	6.8	5.3	5.18
2007	5.8		
2006	5.6		
2005	4.9		
2004	3.7		

Source: HSA team calculations

* The World Bank classifies member economies and other economies with populations of more than 30,000.

In 2006, Tanzania's health expenditures were funded primarily by donors (44 percent), followed by government (28 percent), households (25 percent), and other private funds (3 percent) (MOHSW 2008b). This shows that the health system in Tanzania is largely dependent on donors, raising the questions around reliability and sustainability of fund flows. In addition, there are concerns about some donors' recent move away from health sector pooled funding to general budget support (i.e., where all donor funds are given to Treasury and allocation among sectors is part of the normal budgeting process). Part of the concern is whether the health sector will receive a 'fair share' of donor funds under this arrangement.

At council level, the funding of health services is fragmented and uncoordinated. There are at least 13 sources of funding at council level (MoHSW, 2007c). Health Block grant continues to be the major source of funds followed by Health Basket Funds and other sources of funds. The role and allocation procedures of the health block grant and basket funding are well known, however, there is mounting concern over the role and allocation procedures of the other sources of funding (i.e. cost sharing and others). There is little information on how cost sharing money is eventually distributed and used. Better coordination of the financial resources at the council level, and reporting systems that allow an overview across the country would help decision makers at all levels.

5.3.2 PER CAPITA TOTAL HEALTH EXPENDITURE

Per capita health spending increased modestly from about US$10.58 in 2006/07 to US$11.29 in 2007/08, and the estimates for 2008/09 could pull it up to US$13.46. HSSP III projections show per capita total health spending could increase to US$26.6 in 2014/15. Though per capita health expenditure has increased in recent years, it remains far short of the 2001 WHO Commission on Macroeconomics and Health estimate of US$34 (WHO 2001), (an estimate that is already outdated) to deliver a minimum package of services, as well as its regional comparator of US$74 for sub-Saharan Africa. Though health expenditures are increasing, the health system continues to be underfunded. Figure 8 presents a summary of public per capita health spending, both in local currency and foreign currency.

FIGURE 8. PER CAPITA HEALTH EXPENDITURE 2004/05–2008/09

	2004/05	2005/06	2006/07		2007/08		2008/09
	Actual	Actual	Approved	Actual	Approved	Actual	Estimates
NOMINAL (TZS)	8,235	11,308	13,375	13,214	15,368	14,253	17,768
REAL (TZS)	6,412	8,321	9,177	9,067	10,120	9,386	11,400
NOMINAL USD	7.42	9.49	10.71	10.58	12.18	11.29	13.46
REAL USD	5.78	6.98	7.35	7.26	8.02	7.44	8.64
Deflator	*1.28*	*1.36*	*1.46*	*1.46*	*1.52*	*1.52*	*1.56*
Exchange Rate	*1,109*	*1,192*	*1,249*	*1,249*	*1,262*	*1,262*	*1,320*
Population	*36,576,738*	*37,704,872*	*38,867,802*	*38,867,802*	*40,066,599*	*40,066,599*	*41,302,370*

Source: MoHSW (2009d).
Note: TZS=Tanzania Shilling (Tsh), USD=U.S. dollar (US$)

5.3.3 GOVERNMENT EXPENDITURE ON HEALTH AS PERCENTAGE OF TOTAL GOVERNMENT EXPENDITURE

Figure 9 summarizes government expenditure on health as percentage of total government expenditure (including and excluding the Consolidated Fund Service [CFS]) for the period 2004/05-2008/09. Generally, the share of the health sector in total government budget and expenditures, around 11 percent, has remained well below the 15 percent Abuja Declaration target. However, over the last 10 years since 2000/01, approved government estimates for health sector show an eight-fold increase (from Tsh 80.7 billion to 639 billion) which is indicative of the government's commitment to the health sector. The MMAM (the PHC program) aim to restore the health system is a noble effort that needs to be matched by additional resources to the health sector for its implementation.

FIGURE 9. GOVERNMENT EXPENDITURE ON HEALTH AS PERCENT OF TOTAL GOVERNMENT EXPENDITURE

	2004/05	2005/06	2006/07		2007/08		2008/09
	Actual expenditure	Actual Expenditure	Approved estimates	Actual expenditure	Approved estimates	Actual expenditure	Estimates
TOTAL PUBLIC SPENDING EXCLUDING CFS	2,657,780	3,017,567	4,496,345	3,862,022	5,451,800	4,685,200	6,567,845
TOTAL PUBLIC SPENDING INCLUDING CFS	2,991,611	3,577,747	4,972,492	4,338,123	5,998,100	5,209,000	7,216,130
TOTAL HEALTH SPENDING	301,227	426,374	519,871	513,606	615,748	571,073	733,878
Health As % of Total Expenditure excluding CFS	11.3%	14.1%	11.6%	13.3%	11.3%	12.2%	11.2%
Health As % of Total Expenditure including CFS	10.1%	11.9%	10.5%	11.8%	10.3%	11.0%	10.2%

Source: MoHSW (2009d)
Note: The contributions from National Social Security Fund (NSSF) through SHIB is not included in the Government expenditure because data was not available.

5.3.4 PUBLIC SPENDING ON HEALTH AS PERCENTAGE OF TOTAL HEALTH EXPENDITURE

Table 9 shows the public spending on health as percentage of total health expenditure. In 2002/03 the public funding accounted for 25.4 percent while the private and donor sources contributed 47.1 percent and 27.4 percent, respectively. In 2005/06, public and private contributed almost equal shares (28.1 and 27.8 percent, respectively). By comparison, the sub-Saharan Africa average is 51.1 percent.

TABLE 9: PUBLIC SPENDING ON HEALTH AS PERCENTAGE OF TOTAL HEALTH EXPENDITURE

Source	2002/03	2005/06
Public	25.4	28.1
Private	47.1	27.8
Donor	27.4	44.1
Total	100.0	100.0

Source: MOHSW (2008)

In 2005/06, donor funding increased to 44 percent of the total health spending, primarily attributable to the first tranche of funding from the Global Fund to Fight AIDS, Tuberculosis, and Malaria as well as increases in SWAp funding. This has made the health system more dependent on donors, which poses a major challenge to sustainability in the provision of health care. For this reason, the GOT has been exploring complimentary health financing schemes to remove financial barriers to health care by introducing risk pooling through the NHIF, SHIB and CHF. These financing schemes are discussed more fully below.

5.3.5 OUT-OF-POCKET SPENDING AS A PERCENT OF TOTAL HEALTH SPENDING

In many sub-Saharan African countries including Tanzania, households bear a heavy burden in funding of health care services. The National Health Accounts estimation of 2008 shows that out-of-pocket spending as a percentage of total health spending for 2002/03 and 2005/06 was 40.6 percent and 23.1 percent, respectively. Despite steady decline in OOP spending as a percent of total health spending, OOP payment in Tanzania is still above the threshold for incidence of catastrophic expenditure set at about 15% (WHO, 2005). Catastrophic expenditure is said to occur when households spends more than 40% of their disposable income after deducting subsistence allowance (WHO, 2005). Table 10 compares Tanzania's OOP expenditure with other selected sub-Saharan African countries in the region.

TABLE 10: OUT-OF-POCKET EXPENDITURES AMONG SELECTED SUB-SAHARAN AFRICAN COUNTRIES, 2005/6

Country	OOP as % of total health care funding
Malawi	8.9
Namibia	3.7
Kenya	29.1
Tanzania	**23.1**
Rwanda	23

Source: Tanzania HSA team own compilation

Out-of-pocket costs can be a significant barrier to accessing care, especially among poor households, and can threaten the financial stability of households, even pushing some into poverty. One strategy to cope with the costs of illness is to delay seeking care until the illness is severe, which may ultimately lead to higher costs of treatment, such as when the sick person has to be admitted to hospital. Self-treatment using allopathic or traditional medicines available at home, or purchased from a drug seller or traditional healer, at a lower cost than at public facilities (and sometimes on credit) is another common strategy for avoiding or at least minimizing cost (Save the Children, 2005). This suggests the need for providing a good financial protection for the majority of Tanzanians.

5.4 POOLING AND ALLOCATING FINANCIAL RESOURCES: GOVERNMENT BUDGET FORMULATIONS

5.4.1 MOHSW BUDGET TREND

The share of recurrent expenditure (i.e., annually recurring operational expenditures) as a proportion of total health expenditure has declined from about 80 percent of actual expenditure in 2004/05 to 55 percent in 2008/09. At the same time, the share of development expenditure (i.e., for long-term assets) has increased from about 19 percent of the actual expenditure in 2004/05 to about 36 percent of the actual expenditure in 2007/08 and about 45 percent in 2008/09. The increase in development funding can be attributed to rehabilitation of existing facilities and construction of new ones under the MMAM (PHSDP) program, as well as the inclusion of formerly off-budget capital spending funded by the Global Fund. However, the challenge remains on how to staff and equip the facilities due to financial constraints.

Overall budget performance for the health sector has been good with small mismatches between approved estimates and actual expenditures. Actual total expenditures reached 99 percent of the approved estimates in 2006/07, but declined to 92.7 percent of the estimates for 2007/08. The key factor responsible for lower performance of the development budget is the length of time consumed during the procurement procedures for works and contract management. The major reason for failure to fully execute the recurrent budget is related to failure to release funds, late disbursement of the funds, and reallocation of the fund to other activities. Figure 10 shows the MOHSW budget trend the period between 2004/05 to 2008/09.

FIGURE 10. MOHSW BUDGET TREND (ON BUDGET)

	2004/05	2005/06	2006/07		2007/08		2008/09
	Actual expenditure	Actual Expenditure	Approved estimates	Actual expenditure	Approved estimates	Actual expenditure	Estimates
Recurrent	242,829	308,045	397,644	391,792	394,894	360,290	402,384
Development	58,399	118,329	122,226	121,814	220,854	210,782	331,494
Total on-budget	301,228	426,374	519,870	513,606	615,748	571,072	733,878

Source: MoHSW (2009d)

5.4.2 PROCESS OF MOHSW BUDGET FORMULATION

Central-level Budgeting

The budget process, the annual budget cycle events and activities, involves determining and allocating resources available to achieve of government objectives. The budget estimates are formulated in line with detailed macroeconomic forecasts on future growth, inflation, and external sector (import) trends. The MOHSW uses a "bottom up" approach (i.e., starting from the level of service delivery at the councils, programs, etc.) and compiles actual requirements for each program/department. Priority areas are outlined in various policies, the HSSP III, and other government directives. Once the sectoral performance review and resource projections are completed, the MOHSW shares these actual requirements with development partners and other stakeholders. These requirements are submitted to the MOFEA using special software called Strategic Budget Allocation Software (SBAS).

There are numerous constraints in the way in which the central government budget is currently prepared in Tanzania:

- Important sectoral budget decisions are made by central budget ministries (MOFEA, PO-PSM, and Ministry of Planning, Economy and Empowerment). This means the budget process does not give the health sector the right incentive to identify the most efficient mix of personnel emoluments (PE), other charges (OC), and development expenditure.
- The overall budget formulation process lacks a framework to increase the relative importance of priority sector and programs; for example, there is no mechanism to raise the size of the health sector expenditure to 15 percent of the budget as committed to by the GOT.
- In practice, resource prioritization and performance linking are poorly applied during budget formulation. Thus, rather than the policy priorities determining the activities that the MOHSW pursues and funds, it appears that the ministry departments arrive at a list of activities they wish to pursue (wish list) then find matching priority outcomes to justify each activity. Without clear priorities, the budget formulation process is often reduced to an exercise of providing all programs with an equal, incremental increase of funds.
- It is not clear the extent to which the activities selected for inclusion in the budget are in fact the highest impact activities because there is an absence of critical sectoral analysis to guide prioritization during budget formulation.
- Health services are not costed and this leads to unrealistic pricing of activities in health budget.

District/Council-level Budgeting

At the district/council level, budgeting is done through the CCHP under CHMT supervision. The planning process emphasizes the bottom-up approach. Thus, the planning team has to integrate the views of the communities and health facilities priorities in line with the National Essential Health Package. However, in practice most CCHPs are products of (selected) CHMT members, with private partners and community representing bodies at best operating as rubber stamp approving entities.

Due to unavailability of data coupled with poor planning knowledge and skills, a historical approach is used, which simply reflects the amount of funding from the previous year with a possible adjustment for inflation or changes in overall government spending. In addition, there are neither established set of criteria to guide the prioritization of interventions in case the ceiling is surpassed, nor specific criteria for allocating resources to the lower-level health facilities in the district/council. The CCHP guideline

outlines a number of interventions (i.e., the Essential Health Package) to be covered in the CCHP. In addition, only one criteria (i.e. severity of the problem) is proposed in ranking intervention during resource allocation. However, in reality the trade-offs of multiple factors need to be considered during prioritization of intervention. Therefore, CCHP prioritization and resource allocation tend to be rudimentary and ad hoc, leading to misalignment of budget allocations with more funding allocated to some functions than needed and less to others. These problems with budgeting would be greatly reduced if districts could adhere to the CCHP guidelines plus use of the PlanRep2 tool to assist them. Deficiencies in the use of these two tools have also been witnessed in the Iringa region where the Wajibika Project is assisting districts to strengthen financial and programmatic accountability.

5.4.3 CENTRAL AND LOCAL COUNCIL BUDGET ALLOCATION FOR HEALTH IN DECENTRALIZED SYSTEM

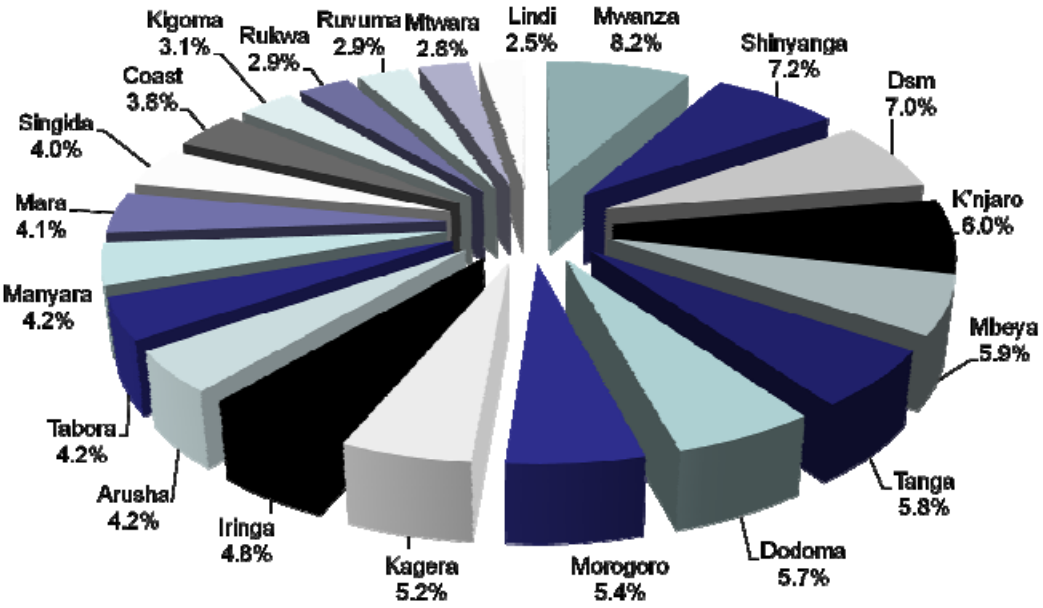
Funds for the health sector at the district/council level come from a number of sources. They include block grant, basket funding, and other sources such as local taxes, cost sharing (CHF, NHIF, SHIB, and user fees) and other donors not participating in the basket funds (e.g., USAID, CHAI, EGPAF). In Tanzania, the health block grant from the central government for each council as well as basket funds are allocated to councils using a needs-based formula. The formula incorporates four factors: population (70 percent); poverty count (10 percent); district vehicle route, proxy for size of area covered (10 percent); and under-five mortality (10 percent). No formula exists for allocating fund to the beneficiaries within the council (i.e., health facilities and individuals). Part of general tax revenue for the health sector allocated to councils is distributed through other mechanisms that potentially do not contribute to enhanced equity. One example is the matching grant provided to each district based on CHF revenues generated. While this is an incentive to CHFs to generate as much revenue as possible, and promotes the sustainability of these community-based insurance schemes, it is likely to have an adverse equity impact. The CHFs that are able to generate the most revenue are those situated in districts with a higher-income population. Hence, more general tax funds would be allocated to districts that are economically better off, off-setting to some extent the equity-based allocations of other tax funds via the needs-based formula mechanism.

5.4.4 PERCENTAGE OF HEALTH BUDGET ALLOCATION IN RURAL/URBAN AREAS

Government budget and expenditure data are not disaggregated by rural/urban but by expenditure code and therefore allocations of PEs and OCs to local government are used as proxy to show the rural/urban budget allocation shares. Generally, regions with big cities and towns receive higher allocations of funds than do more peripheral regions in remote areas. Allocation to regions with big cities – Mwanza (8.2 percent), Arusha (4.2 percent), Dar Es Salaam (7.0 percent), Kilimanjaro (6.0 percent), Mbeya (5.9 percent), Tanga (5.8 percent), and Dodoma (5.7 percent) – are much higher than allocations to more rural regions like Lindi (2.5 percent), Mtwara (2.8 percent), Ruvuma (2.9 percent), Rukwa (2.9 percent), and Kigoma (3.1 percent), as shown in Figure 11.

The more urban areas receive a larger share of the OC budget because the allocation formula is primarily driven by population (70 percent of the formula). The factors that seem designed to increase allocations for rural areas are the vehicle route (representing the geographic size of the region) and the poverty rate – but these factors carry very low weight in the allocation formula. Further, the personnel budget is not allocated by need, but based on where staff are stationed. This favors urban areas because urban postings are more desirable and staff posted to rural areas may not take up those posts. Further discussion of this issue can be found in the HR chapter.

FIGURE 11. ALLOCATION OF PERSONNEL EMOLUMENTS AND OTHER CHARGES FUNDS TO LGAS, 2009



Source: MOHSW (2009b) Report on the analysis of CCHP and RHMT reports and plans 2009/2010

5.4.5 LOCAL-LEVEL SPENDING AUTHORITY

Autonomy in Making Recurrent Cost Expenditures

The accounting system at the LGA level follows the Local Government Financial Memorandum (LGFM) of 1997. According to the memorandum, the main bank account for health services is the council's Health Service Account (Account no.6) for block grant and basket funds. In addition, the DMO operates or is a signatory to a number of project-related accounts including cost sharing.

The banking of health funds from central-level, development partners, and community contributions is centralized at the district level. Local accounting regulations do not allow bank accounts for health centers and dispensaries. Money from user fees collected at health facility level is deposited in a central account at the district level and managed by the DMO. While this reduces the potential for financial mismanagement at the facility level, the absence of facility-level accounts acts as a significant disincentive for facility staff to increase the collection of user fees and insurance premiums from patients since they have little flexibility in utilization of those funds.

In addition, the internal processes cause delays in disbursement of funds from the district level to facilities after a request to finance an activity has been made. Many health facilities reportedly stopped requesting funds because they would not know when and if the funds would be disbursed.

Systems to Track and Audit Expenditures According to Budget

The Controller and Auditor General (CAG) under section 28 of the Public Audit Act No. 11 of 2008 has the mandate to carry out performance audits of councils to determine if public expenditure has followed government requirements for economy, efficiency, and effectiveness of any public expenditure or program. However, these performance audits are not routine and are often not conducted. A

routine audit is supposed to be carried by the LGA's internal audit departments; however, due to shortage of auditing personnel, these audits rarely happen.

RHMTs are supposed provide the supportive supervision for monitoring the implementation of the CCHP; however, a shortage of funding and official tools hinders effective monitoring and supervision. Some RHMTs through their own initiative have developed simple Excel tools to monitor CCHP execution. For example, the RHMT-Mtwara has developed an Integrated Supportive Supervision Checklist tool, which could be adopted by other RHMTs.[8]

5.5 POOLING AND ALLOCATION OF FINANCIAL RESOURCES; HEALTH INSURANCE

A move toward universal coverage and social health insurance is a core element of the government's health financing policy. To implement this, the government has initiated and encouraged the proliferation of a number of prepayment schemes, as discussed below.

5.5.1 NATIONAL HEALTH INSURANCE FUND

The NHIF is a statutory health insurance scheme established by the Act of Parliament no. 8 of 1999, amended to Act no. 25 of 2002. It is a mandatory health insurance scheme for public servants, and it covers their spouse and a maximum of four dependents. The employers and employees in the public sector are obliged by law to be registered and contribute to the fund a total of 6 percent of the employee salary equally shared between the employer and employee. In 2001, the initial membership size was 164,708 principal members; this grew to 295,205 in July 2007. The number of beneficiaries/ dependents increased from 691,774 in 2001 to 1,629,531 in 2007, almost 6 percent of the total population.

The NHIF offers both inpatient and outpatient care as part of its benefits package to the members. Members and their dependents are issued identity cards to be used when accessing health care services. In 2007, the NHIF insured 1,101,840 people, based on identity cards issued (NHIF 2008).

The NHIF uses a fee for service method to reimburse its service providers. However, reimbursement has remained comparatively low due to low level of claims, thus NHIF has built a considerable reserve (Tanzania-German Programme to Support Health 2006). A study published in 2007 (Mtei and Mulligan 2007) found that total expenditures of the NHIF for the years 2003 and 2004 were 20 percent and 27 percent of total revenues, respectively. In 2008/9, the percentage of fund paid out to health services against total income of NHIF was 18.4 (MoHSW, 2010b). This is an indication of huge fund reserve maintained by NHIF in Tanzania. While having a huge reserve enhances the financial stability of the NHIF, it also raises questions about whether NHIF is delivering value for members' money. Figure 12 shows NHIF income and reimbursements for 2004/5–2009/10.

[8] Details of checklist can be obtained directly from RHMT-Mtwara.

FIGURE 12: NATIONAL HEALTH INSURANCE FUNDS INCOME AND REIMBURSEMENTS 2004/5 - 2009/10 (MILLION TZS)

	2004/05	2005/06	2006/07	2007/08	2008/09
Contributions (Million TZS)	24,670	31,733	45,516	55,472	73,282
Total income (incl. Income from investments and others) (Million TZS)	28,610	39,142	56,884	72,168	76,512
Claims lodged (Million TZS)	4,900	5,400	9,600	10,800	15,232
Percentage of claims lodged against total income of NHIF	17.13%	13.80%	16.88%	14.97%	19.90%
Reimbursements paid (Million TZS)	4,100	4,900	8,200	10,200	14,052.16
Reimbursement rate	83.67%	90.74%	85.42%	94.44%	92.25%
Percentage of funds paid out to health services against total income of NHIF	14.33%	12.52%	14.42%	14.13%	18.4

Source:MoHSW (2010).

Several reasons have been put forward to explain about the unutilized fund by NHIF:

- Many facilities (especially public facilities) do not claim reimbursement, citing cumbersome reimbursement procedures.
- The time taken between re-claiming reimbursement and the actual payment is considered unjustifiably long by service providers.
- Some facilities have problems submitting claim forms to the NHIF that are correctly filled in, which delays reimbursement, and possible discourages future claims.

5.5.2 SOCIAL HEALTH INSURANCE BENEFIT

The SHIB was established in 2006 as a legal requirement of the NSSF Act of 2007. It is one of the seven benefits under the NSSF. The NSSF is compulsory for all employees with formal employment especially in the private sector, parastatal organizations, government ministries, international organizations, and embassies employing Tanzanians. However, signing up for the SHIB is a separate, and voluntary, procedure. The SHIB scheme is financed through NSSF contributions, which are currently 20 percent of employee salary, of which the employee contributes 10 percent and the employer 10 percent.

The coverage includes the insured person, spouse and up to four children. The 50,000 registered SHIB members represent less than half a percent of the population. A NSSF pensioner is also entitled to membership of the SHIB provided he or she is willing to accept a 6 percent deduction from the pension after retirement. Reasons for low enrollment include insufficient public information, employer-provided health care for some private sector retirees, and limited or no access to accredited facilities in some areas.

The SHIB benefit package covers both inpatient and outpatient services. These services include accommodation, consultation with clinical/medical officer/specialist or consultant, basic and specialized investigations, minor and major surgeries, drugs on the Essential Medicines List, and referral to higher-level hospitals. Exclusions include services received free of charge from other government schemes,

such as maternity, immunization, TB and leprosy, cancer, HIV/AIDS, epidemics, mental illness, diabetes, injuries where a third party with insurance is involved, cosmetic surgery, services/ treatments for self-inflicted diseases, physiotherapy at home, medical examination for employment, therapeutic trials, and expensive specialized investigative procedures like MRI and DNA typing.

SHIB uses capitation to reimburse service providers. The method has built-in incentives for providers to keep costs down by maximizing efficiency in the services provided to SHIB members. It was found that most of the private providers prefer SHIB to NHIF. Lankers et al. (2008) noted that like the NHIF, the NSSF-SHIB also has very high reserves. One reason for this is that the NSSF's contribution rate included funds for health care costs right from the beginning, even though the SHIB was not introduced until much later.

The NHIF and SHIB are reasonably small pools, and only cover those who have jobs in the formal sector. More importantly, it is of some concern that two separate insurance pools (through two separate mandatory insurance schemes) have been established, which reduces the opportunity for income and risk cross subsidies (McIntyre et al. 2008).

5.5.3 COMMUNITY HEALTH FUND (CHF) AND TIBA KWA KADI (TIKA)

The CHF started in 1996 as a pilot scheme in Igunga district and was later expanded to other councils with the expectation of eventually covering the whole country (Ministry of Health 1999). The CHF was introduced as an alternative to user fees charged at public health facilities. It is designed to cover people in the informal sector and rural areas. TIKA was introduced more recently and targets people in rural areas. Initially, CHF was under the direct supervision of the MOHSW, but recently the ministry has mandated the NHIF to manage and supervise CHF and TIKA. Currently, 99 out of 132 districts have introduced and adopted the CHF and TIKA.

Households join the CHF and TIKA on a voluntary basis. As noted above, it provides them access to health care without paying user fees at the point of service. The CHF and TIKA are based on the concept of risk pooling and solidarity, where members pay a small yearly premium to obviate the risk of being required to pay much larger amount through user fee if they fall sick. Contributions to the CHF and TIKA are matched one for one through a government matching grant. Currently, premiums range from TSH 5,000 to 15,000 per year per household[9] in various districts. These premium levels contribute towards the costs of consumables but are hardly sufficient to cover the costs of care (Musau 1999).

The CHF works with rural and selected urban public health care facilities only. Where there are no public health care facilities, a special arrangement is made with a local private provider. Only registered private health care facilities enter into a service provision agreement with the health board for provision of service to members. The benefit package varies from district to district and is not portable across districts borders. The package is decided at the district level. While in some districts the benefit package may include only basic primary care services, in other districts it also includes a few selected secondary services.

CHF membership (enrollment) has been reported to be below the targeted 85 percent of the population living in rural area (see Chee, 2002; Shaw, 2002; Musau, 2004, Mtei and Mulligan, 2007; Chitama, 2007). The percentage of households joining the CHF ranges from 4 percent to 18 percent in

[9] The CHF Act.2001 defines a household as a nuclear family including father, mother, and children less than 18 years of age

different districts. This trend suggests that there is slow uptake in membership and high dropout of CHF members notwithstanding a few isolated successes in some districts. Low enrollment leads to a small risk pool – the extent of risk pooling depends on the size of the pool, that is, the number of contributing members and beneficiaries. For this reason, the efficiency and viability of the CHF covering the financial consequences of illness over the long run becomes questionable.

Factors to which various studies have attributed CHF's unsatisfactory performance include the following:

- Poor design (unattractive benefit package and premiums) and lack of professional support especially in financial management
- Weak CHF management
- Low quality of care and lack of choice
- A waivers and exemptions policy that allows many people to receive free treatment, limiting the need for insurance
- Limited CHF knowledge in the community due to inadequate advocacy and low understanding of the concept of health insurance
- Low trust in CHF management by the community, especially regarding the availability of services (e.g., drugs) when needed
- Introduction of NHIF to compete for rural government employees
- Inadequate monitoring and evaluation of the schemes

5.5.4 PRIVATE SECTOR HEALTH INSURANCE

Private health insurance in Tanzania became popular with most private companies and some government agencies in the second half of the 1990s, when implementation of health sector reform began. To date, Tanzania has about 15 registered insurance companies, of which five have a health insurance component covering approximately 120,000 people, less than 1 percent of the total population. According to Lankers et al. (2008), the growth of private health insurance is slow due to the poor quality of health care in many parts of the country. Private health insurance companies do not report to the MOHSW but are – together with other forms of private insurance – supervised by the Tanzania Insurance Regulatory Authority (TIRA).

5.5.5 HEALTH MICRO INSURANCE SCHEMES

The number of health micro insurance schemes has increased over time. Currently, about 36 schemes have registered under the Tanzania Network of Community Health Funds (TNCHF). (Many others have chosen not to register. For example, UMASIDA and VIBINDO, both based in Dar es Salaam, and Anglican Health Network, still in the design stage, are not registered.) Most of the schemes are sponsored by religious groups, informal groups, associations, international organizations such as the International Labor Organization (ILO), PharmAccess, GTZ, and International Center for Development and Research (Centre Internationale de Developpement et de Recherche, or CIDR). Membership in these schemes is voluntary and the membership fees vary from one scheme to another. The actual number of members covered by these schemes is limited, estimated to be around 20,000. Services that are covered by these schemes include PHC, outpatient services, reproductive health, and minor surgery.

In some districts health micro insurance schemes have been integrated with the CHF. Currently, there is no systematic documentation of the contribution of such schemes to the overall health sector resource envelope.

5.6 PURCHASING AND PROVIDER PAYMENT

5.6.1 POLICY FOR USER FEE PAYMENT IN THE PUBLIC SECTOR

User fees were introduced in public facilities in 1993, as part of a broader package of reforms. The fees were intended to mobilize financial resources that would complement funding from the government health budget.

National cost sharing guidelines were developed outlining the charges for services at all levels of the public health care system. The guidelines set a single flat rate fee irrespective of ability to pay, although exemptions were provided for the poorest. The use of revenues collected through user fees is not known, and often it is not possible to determine the share of reported council income and expenditure from user fees. The user fees collected are spent at the points of collection, although they are sent to the CHMT for banking as facilities do not maintain bank accounts. According to Laterveer (2004), as a nationwide average, the user fees have generated around 5 percent of total recurrent health expenditures, inclusive of administrative costs (this proportion is also mentioned by WHO). This revenue provides a valuable source of financing at the health facility level for urgently needed drugs and medical supplies or facility maintenance. However, there is increasing concern about the long delays in facilities getting their requested funds, due to complicated bureaucratic procedures required.

In recognition of the equity issues around user fees, a national waiver and exemption policy was developed. It states that "an exemption is a statutory entitlement to free health care services, granted to individuals who automatically fall under the categories specified in the cost sharing operationalization manual: MCH services, including immunization of children in all Grade III services; children of 5 years of age and below; patients suffering from TB, leprosy, paralysis, typhoid, cancer and HIV/AIDS; cholera, meningitis, plague, and long term mental disorders" and that "a waiver is granted to those patients who do not automatically qualify for statutory exemptions but are in need of the same, and classified as unable to pay, in the cost sharing operationalization manual.

However, the exemption and waiver system often functions poorly, putting vulnerable and poor people at risk by denying them access to public sector health services. In addition, identification of the poor for waivers is a challenging task as there are no explicit criteria for use in identification.

5.7 STRENGTHS

The GOT has made health a priority sector and demonstrates its commitment by annually increasing the amount of funding provided to the MOHSW. Other significant areas worthy of mention include:

- The current efforts to widen risk pooling in health through the establishment of various schemes including: SHIB, CHF, NHIF with a vision to have 45% of the population covered through these schemes.
- The National Health Policy calls for the establishment of social health insurance and this has already started with the establishment of the National Health Insurance Fund catering for public servants.

- The CHF after a slow start appears to be gaining momentum and with a major increase in membership from 236,277 households in 2009 to 454,624 households in 2010.
- Clear guidelines and tools exist for proper planning at the LGA level and various initiatives are under way to strengthen financial management at this level.

5.8 KEY FINDINGS AND RECOMMENDATIONS

Several issues with regard to the financial functioning of the Tanzania health system have emerged, and are summarized below.

Findings

i. Funding

- Total government expenditure on health has not reached the Abuja target of 15 percent of government budget. There is no clear strategy to increase government budget in line with the government's stated commitment to the health sector as a core priority sector although the government's commitment is evident in the consistent increase in funding for health over the last ten years.
- The health system is highly dependent on donors, which poses a major challenge to sustainability and reliability.
- At the council level, the funding for health services is fragmented and uncoordinated. There is no clear information on how cost sharing money is used.
- There are often delays in facilities getting requested funds disbursed due to complicated procedures for funding disbursement.

ii. Budgeting process

- Resource prioritization and performance linking are poorly applied during budget formulation. It is not clear extent to which the activities selected for inclusion in the budget are the highest impact activities because there is an absence of critical sectoral analysis and priority setting criteria.
- The CCHP guidelines do provide guidance on criteria to be used in selecting interventions for funding. The essential health package provided in the CCHP is not costed and is too general to guide councils. Due to lack of data, planning skills and knowledge, councils primarily rely on historical plans and budgets to guide future activities.

iii. Health insurance

- The NHIF spending level is still very low and much of the fund remains unutilized. While having a huge reserve indicates the NHIF's financial stability, it also raises questions about whether NHIF is delivering value for money to its members. Many facilities (especially public facilities) do not submit claims for reimbursement from the NHIF, citing cumbersome claim procedures.
- Two separate pools (through two separate mandatory insurance schemes, NHIF and SHIB) have been established, which reduces the opportunity for income and health risk cross-subsidization.

- There is slow uptake in membership and high dropout of CHF members (which may be due to low service quality) notwithstanding few isolated successes in some districts.

Recommendations

i. Funding

- Streamline procedures for the disbursement of funds from central to lower levels and reduce lead time between request and disbursement of funds.
- Develop a health financing framework to guide all levels of the health system including the LGAs.
- Develop explicit criteria to guide the identification of the poor who qualify for fee waiver in cost sharing.

ii. Budgeting process

- Support the councils to use health data to guide the development of the CCHP and PlanRep2 and decision making at council level.
- Develop a clear strategy to guide the government toward meeting its commitment to the 15 percent Abuja target of government spending on health.
- Extend the resource allocation formula beyond the district level or design criteria to guide prioritization and resource allocation within the council.
- Develop a health management training curriculum and incorporate it into pre-service and in-service training.

iii. Health insurance

- Continue to strengthen the CHF in terms of management, benefit package, premiums and promotion to rural communities, to make it more attractive to the population.
- Streamline and simplify NHIF claim procedures and build capacity of health facilities to submit claims in a complete and timely manner.
- Harmonize the nationally mandated health insurance schemes (NHIF and SHIB) to provide larger risk pools with greater opportunity for income and health risk cross-subsidization.

6. HUMAN RESOURCES

6.1 STATUS OF HEALTH WORKERS, BY CADRE

The health sector is facing a serious human resource (HR) crisis that is negatively affecting the ability of the sector to deliver quality health services. There is a severe shortage of HR at all levels. The shortage is more severe in rural districts. The shortage is exacerbated by the HIV/AIDS pandemic, malaria, TB, and population increase. A study conducted in 2008 by NIMR found that the number of health workers in the country is far below the required standard numbers based on staffing norms prepared in 1999.

Despite the effort done by the MOHSW in staffing the health facilities at all levels including the recent emergency hiring initiatives under Benjamin Mkapa AIDS Foundation (BMAF) and the recent effort of the ministry to disburse funds to councils according to posted staff to avoid lack of salaries soon after reporting, there is still more work to be done to recruit, deploy, and retain public sector health workers, especially those assigned to remote and rural areas. MOHSW efforts continue to be hampered by administrative problems together with the absence of an effective incentive scheme and poor retention. This impedes improvement in the quality of care in large parts of the country and contributes to inequities in access to services.

Shortage of qualified staff is more evident at lower level facilities and in more remote areas. The shortage is caused mainly by low output of qualified staff, maldistribution, poor remuneration, poor infrastructure, lack of attractive retention schemes, and migration to other countries after training, and inter-sectoral movement and/or retraining in other disciplines. Table 11 provides a summary of available workforce based on the established staffing norms. The deficit is apparent for specialist doctors, medical doctors, nurse/ nurse-midwife/public health nurse II, radiographers, clinical officers, and pharmacists/technicians. The available number is around 50 percent or below of the establishment.

TABLE 11. STATUS OF HEALTH WORKERS, BY CADRE

Cadre	Establishment	Available	Deficit	%Deficit
Specialist doctors	229	96	133	58.1%
Nurse/ NW/PHN II	20,373	9,241	11,132	54.6%
Radiographer	197	97	100	50.8%
Clinical officers	11,316	5,655	5,661	50.0%
Pharmacist/technician	621	311	310	49.9%
AMO/ADO	2,407	1,295	1,112	46.2%
Health officers	1,823	990	833	45.7%
Laboratory technician	821	480	341	41.5%
Asst. clinical officers/ MCH aide	760	451	309	40.7%
Medical doctors	748	469	279	37.3%
Nursing officers/ PHNA	6,559	4,381	2,178	33.2%
Health secretaries	269	196	73	27.1%
Others\ medical attendants	24,154	18,891	5,263	21.8%
Total	70,277	42,553	27,724	39.4%

Source: MOHSW (2009a)- CCHP report 2009/2010

Note: NW=nurse-midwife, PHN=public health nurse, AMO=assistant medical officer, ADO=assistant dental officer, PHNA=public health nurse assistant

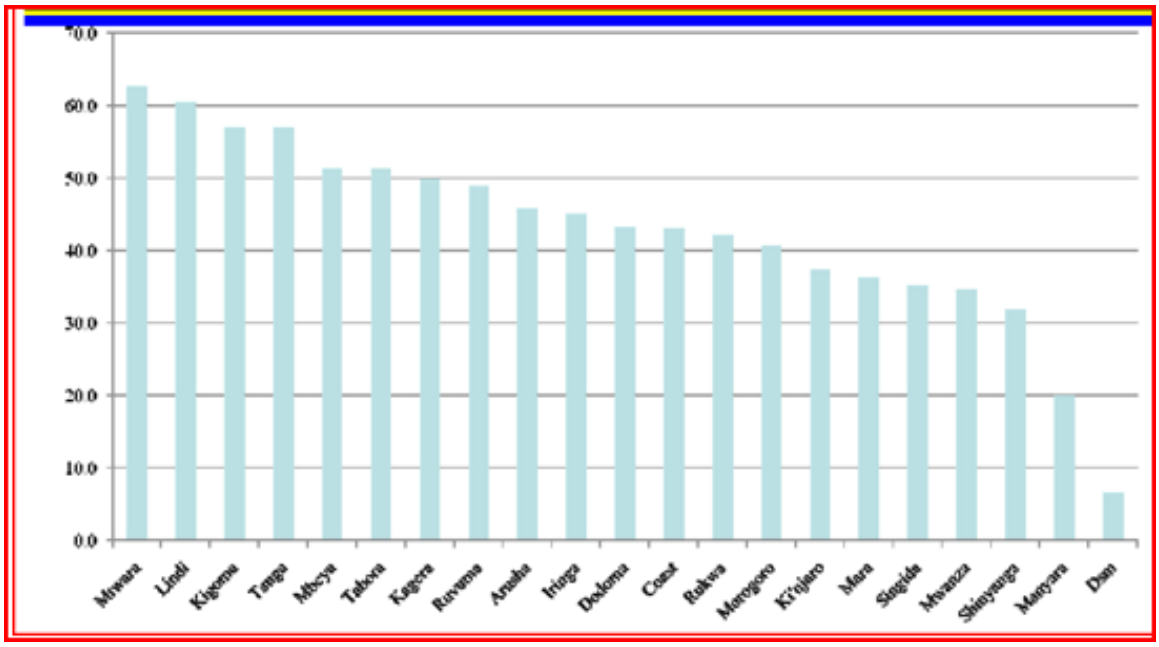
There is also the problem of poor distribution of the available workforce. In some parts of the country, the shortage is twice as severe as other parts. Figures 13 and Figure 14 show the status of health worker positions by region. The regions with the highest deficits of health workers are Mtwara (62.6 percent), Lindi (60.4), and Kigoma (57 percent), and regions with the smallest deficits are Dar es Salaam (6 percent), Manyara (20 percent), and Shinyanga (32 percent) according to payroll data.

FIGURE 13.DISTRIBUTION OF HEALTH WORKERS, BY REGION

Region	Establishment	Available	Deficit	% Deficit
Mtwara	2,380	1,416 (37.4%)	1,490	62.6
Lindi	3,166	1,253 (39.6%)	1,913	60.4
Kigoma	2,277	981	1,299	57.0
Tanga	2,114	1,023	1,206	57.0
Mbeya	5,116	2,495	2,621	51.2
Tabora	2,604	1,495	1,333	51.2
Kagera	4,311	2,643	2,146	49.8
Ruvuma	3,770	1,931	1,839	48.8
Arusha	3,337	2,221	1,528	45.8
Iringa	3,960	2,179	1,781	45.0
Dodoma	2,792	1,583 (56.7%)	1,209	43.3
Coast	2,624	1,889 (57.0%)	1,128	43.0
Rukwa	1,960	1,135 (37.9%)	825	42.1
Morogoro	2,322	1,582	941	40.5
K'njaro	4,835	3,030	1,805	37.3
Mara	3,127	1,991	1,136	36.3
Singida	2,143	1,389	754	35.2
Mwanza	8,300	5,433	2,867	34.5
Sinyanga	4,378	2,083	1,305	31.0

Source: MOHSW (2009a))- CCHP report 2009/2010

FIGURE 14. DISTRIBUTION OF HEALTH WORKERS, BY REGION



Source: MOHSW (2009a))- CCHP report 2009/2010

The regional averages conceal the fact that intraregional and intra-district distribution is also uneven. Thus, the less popular districts and more remote health facilities are especially disadvantaged. The national shortage of health staff means that the "better-off" districts and regions can continue to hire staff. The inequitable distribution of HRH will persist until a workable package is found that incentivizes staff to serve in less popular districts and villages.

There is critical shortage of mid-level cadres (clinical officers, nursing officers, enrolled nurses, and laboratory assistants). These four cadres make up almost 85 percent of the current adjusted deficit of health care workers. Clinical officers account for about one-third of the current deficit of health care workers, nursing officers for almost one-quarter (Christian Social Service Commission 2009). Table 12 shows the degree of shortage of these mid-level cadres, based on estimates made in 2009. Since then there has been significant investments in increasing production capacity, so that the projected deficits shown below are eliminated by 2018.

TABLE 12. PROJECTIONS OF HEALTH CARE WORKERS NEEDED FOR REGIONAL HOSPITALS, DISTRICT HOSPITALS, HEALTH CENTERS, AND DISPENSARIES FOR MID-LEVEL CADRES

	Adjusted Deficit	Production Estimate (2007/8–2017/18)	Estimated Vacancy Rates by 2018 at Current Production
Clinical officers	33,120	5,495	83%
Nursing officers	21,263	2,170	90%
Enrolled nurses	17,033	4,480	74%
Laboratory assistants	14,932	2,960	80%

Source: MOHSW (2009a)

6.2 HUMAN RESOURCES FOR HEALTH AND THE PRIMARY HEALTH CARE SERVICES DEVELOPMENT PROGRAM (2007–2017)

Under MMAM (described in earlier sections of this report), the MOHSW set a goal of establishing a dispensary in each village and a health center in each ward by 2017. Meeting this goal will require a rapid increase in the number of health care workers to fill existing staffing gaps and appropriately staff these additional health facilities.

In 2006, the government estimated a shortage of over 90,000 health professionals in existing public and private sector health facilities (Tables 13 and 14). Through MMAM, Tanzania plans to build 3,088 dispensaries, 19 district hospitals, 95 maternity waiting homes, and 2,074 health centers to extend PHC services. The number of additional professional health care workers required to staff these new facilities is estimated to be almost 88,829 (including 0.5 percent per year attrition rate), bringing the total new health care workers needed for the public sector alone to about 142,043 by 2017.

As the number of health facilities increases with the implementation of MMAM from about 5,000 to over 13,000 by 2017 (MOHSW 2008a), the need to further increase the training and absorption of skilled health workforce is necessary. Efforts to scale-up training, recruitment, and retention of health care workers must be ambitious and comprehensive if the MOHSW is to meet MMAM's objectives.

TABLE 13. HUMAN RESOURCES STATUS AND PROJECTION IN PUBLIC SECTOR FACILITIES

Facility	Health Facilities			Health Staff					
	Available Facilities 2006	New Facilities (MMAM) 2007-2017)	TOTAL	Required per Establishment 2005	Required for Existing Facilities	Medical Professional Staff Available 2006	Shortage 2006	Shortage %	MMAM Requirement (2007-2017)
Referral and specialized hospitals	8	-	8	*	8,546	4,477	4,069	48%	-
Regional hospitals	21	-	21	346	7,266	2,481	4,785	66%	-
District hospitals	95	19	114	197	22,458	7,364	15,094	67%	3,743
Health centers	331	2,074	2,405	36	11,916	4,908	7,008	59%	49,776
Dispensaries	3,038	3,108	6,146	10	30,380	9,384	20,996	69%	31,080
Training institutions	72	4	76	*	1,711	449	1,262	74%	-
TOTAL	**3,565**	**5,205**	**8,770**		**82,277**	**29,063**	**53,214**	**65%**	**84,599**
								Attrition Rate 0.5% per year	4,230
									88,829
Total new staff required for public health facilities (2007-2017) is 88,829 + 53,214 = 142,043									

Source: Primary Health Care Services Development Program (2007-2017)

TABLE 14. HUMAN RESOURCE STATUS AND PROJECTION FOR PRIVATE SECTOR FACILITIES

Total New Staff Required for Private Health Facilities					39,383	
Facility Level	**Available Health Facilities**	**HEALTH WORKERS**				**Staff Shortage %**
		Required Staff per Establishment 2005	**Required Staff for Existing Facilities**	**Available Staff 2006**	**Staff Shortage 2006**	
Hospitals	132	197	26,004	3251	22,753	87.5%
Health centers	150	36	5,400	758	4,642	86.0%
Dispensaries	1,641	7	11,487	1842	9,645	84.0%
Training institutions	36	*	756	288	468	61.9%
TOTAL	1959		43,647	6139	37,508	85.9%
				Attrition rate 0.5% per year	**1,875**	
				Total new staff required for private health facilities	**39,383**	

Source: Primary Health Care Services Development Program (2007-2017)

6.3 HUMAN RESOURCES MANAGEMENT

Overall HR policies and the conditions of service for all public servants are determined and regulated by the PO-PSM. The MOHSW Department of Personnel and Administration represents the PO-PSM. Under the current decentralized system, regions and districts have the mandate to identify and fill existing staff vacancies. However, long procedures and low HR management capacity at LGA level have contributed to a slow recruitment process, delay in staff placement, and a slow promotion process. HRH planning, forecasting, career development, and succession planning capacity are still poorly developed. Within existing budget ceilings on PEs, a mechanism should be worked out on how best to utilize the PE budget to support the recruitment of required staff and filling of vacant posts as currently there is failure to fill funded posts by 100%. Awareness on promotion procedures is lacking among many health workers, making it difficult for them to follow up on their promotions and promotion rights.

Living conditions in many districts are considered hardships, with poor roads, communication network, electricity, recreation, water, and schools. The inability of the government to arrive at some form of incentive package health workers and other sectoral staff in underserved areas has contributed to the continuing problem of understaffing and significant lack of motivation to function effectively.

The government faces a challenge to fill approved and funded posts in the disadvantaged regions/districts. While the MOHSW posts new health workers to remote and rural areas, sometimes the health workers do not report to their new stations. When this happens, often LGAs do not provide feedback to the MOHSW such that a replacement staff or the posted worker can be found. In Masasi and Nanyumbu (Mtwara region), the assessment team confirmed that out of 35 approved and funded posts for 2009/10 for the region, only two new staff had taken up their posts. The MOHSW in collaboration with the BMAF has undertaken tracking of new employees' reporting to posts, to determine the real magnitude of the problem as well as to identify necessary action to address it.

According to payroll records from the PO-PSM, actual employment of new health sector employees (all cadres) by local government authorities between 2002 and 2008 averaged 1,600 per year, equivalent to a tenth of the new-hire "requirement" and barely enough to compensate for attrition, let alone achieve significant growth of the health workforce. In this context, the projected growth of the health workforce looks gloomy at best. It will be essential that more resource-constrained options are considered – including phasing/prioritizing of new facilities according to need, revisiting the staffing norms to take account of actual workload, and finding ways to improve staff productivity. This will entail putting more resources into a HR management system, to facilitate monitoring, forecasting, developing, and managing health system staff. The MOHSW has begun to take action including increasing salaries and improving HR management skills.

The underserved regions mentioned above have several health training institutions located within their district/council, yet many health facilities in these regions are facing acute shortage of staff. The students admitted into these health training institutions do not come from these disadvantaged regions (many come from Dar-es-Salaam and other urban areas) and prefer to work in more urban areas. Studies have shown that workers who were raised and attended school in rural areas are most likely to be comfortable working in rural areas, compared with those raised in urban areas. The MOHSW therefore should consider (i) putting in place a mechanism to allow LGAs to participate in the selection and financing of candidates for pre-service training, and contracting them to serve in the district/council; and (ii) conducting recruitment in secondary schools in underserved LGAs in order to admit more eligible students from these secondary schools to health professional training through advocacy/publicity.

The retention rate of health workers is higher in public health facilities than in private and faith-based ones (31 percent of health facilities) despite the low rate of incentives in the public sector. Movement of

health workers between public and nonpublic facilities has been common in the recent years. There has been movement from private to public facilities mainly due to job security and availability of various opportunities in public facilities such as training and promotions, unlike the trend in years past. This new trend of movement is also in response to the 2006 salary increase for all public health workers.

6.4 HEALTH WORKFORCE AND HIV/AIDS WORKPLACE POLICY

In 2006, the MOHSW developed the HIV/AIDS Workplace Policy and Strategic Plan targeting health workers. The government has also initiated activities to develop HIV/AIDS workplace programs in various sectors to support workers affected or infected by HIV/AIDS. There is, however, a need to strengthen implementation of universal safety precautions and post-exposure prophylaxis.

While strategies to fight HIV/AIDS have increased, HIV prevalence is still high in many districts. Contracting HIV is a serious occupational hazard and protection of health workers in this environment is critical. Nonetheless, protective supplies for workers are in short supply, and there are no active workplace educational programs at the health facilities.

The health sector continues to suffer through workforce attrition and low productivity arising from AIDS-related illnesses and death. Despite the fact that HIV/AIDS-related programs bring financial and material resources to the council level, these programs also compete for the few available staff in the district, further weakening the system.

6.5 HUMAN RESOURCE PLANNING AND POLICY DEVELOPMENT

Health sector strategy documents clearly demonstrate an understanding that HRH is an important limiting factor in achieving sector objectives. All partners agreed during the Joint Health Sector Review (JAHSR) 2001 that HRH should be given higher priority. The current HRH Strategic plan (2008-2013) was developed in a participatory manner and attempts to address the main problems recognizing both the political and economic context. However, it lacks adequate supply and demand projections, including adequate financing.

HRH planning has been hampered by the weaknesses in the HR management information system, which at times has been sorely underfunded. More recently, the MOHSW has made a renewed effort to update the system, with an initial roll out to seven regions and seven referral hospitals, which is ongoing. The experience has shown that the system is simple and is capable to show trends in many aspects such as attrition, maldistribution, age profile, etc. An up-to-date HR MIS will be extremely useful for improving HR management.

As efforts were made to decentralize HRH functions, a limited form of HRH planning has been devolved to councils and carried out mainly through the staff strength analysis done annually in the CCHP. For the CCHPs, council planners compile available resources and compare them with the facilities staffing standards developed in 1999. Council health managers and workers regard these standards as seriously outdated in that they do not reflect the present workload and disease burden. Moreover, staffing level norms are identical for each health facility of the same type (hospital, health center, or dispensary), irrespective of utilization levels, resulting in very uneven workloads between facilities.

HRH problems are influenced by the broader governance context of the country, because they require coordinated action between several ministries (Gilson and Erasmus 2005). Key policies to address the

HRH problems such as financial and non-financial incentive packages and changes in recruitment, require intensive and difficult negotiations with other ministries (PO-RALG, PO-PSM, MOFEA, and MOEVT), which is a possible reason why it has taken so long to address them. As evidence of the overall commitment to health, however, MOHSW requirements for hiring health workers are relaxed compared with other sectors, and the MOHSW is given priority over other sectors in adding workers.

In the 1990s, many public health workers moved to FBO and private facilities, attracted by higher salaries and better benefit packages, working environments, and training opportunities. However, in recent years, a reverse movement has occurred, largely due to the same factors, with the GOT now offering better employment conditions. The government is addressing this by paying salaries for all seconded staff to FBO health facilities. During the time of the HSA, the MOHSW finalized its draft of the PPP Strategic Plan.

Another area in which urgent action is needed is the out-migration of an unknown number of professional staff from the country to find work in other African countries, in particular in Botswana and South Africa. Gilson and Erasmus (2005) suggest that the post-independence policy of developing allied health professions has served the country well, as their qualifications are not transferable internationally and such cadres are therefore much less likely to migrate. On the other hand, a policy to retain more highly qualified staff as medical officers and registered nurses in Tanzania is now urgently needed.

The MOHSW identified three indicators out of 43 HSSP III indicators for monitoring HRH progress (Table 15), namely: i) number of medical officers and assistant medical officers per 10,000 population by region, ii) number of nurse-midwives per 10,000 population by region, and iii) number of pharmacists and pharmacy technicians per 10,000 population by region.

TABLE 15. HUMAN RESOURCE INDICATORS

Indicator	Numerator	Denomi-nator	Baseline 2008	Target by 2010	Target by 2015	Data source	Type	Frequenc y
Number of nurse-midwives per 10,000 population (by region)	Number of medical officers and asst medical officers available	Total population	0.4 MOs per 10,000 (HMIS 2004/05) 0.7 MOs and AMOs per 10,000 (HMIS 2004/05)	X	X	HMIS	Input	Annual
Pharmacists and pharmacy technicians per 10,000 population (by region)	Number of nurse-midwives available	Total population	2.6 per 10,000 (HMIS 2004/05)	X	X	HMIS	Input	Annual
Pharmacists and pharmacy technicians per 10,000 population (by region)	Number of pharmacists and pharmacy technicians available	Total population	0.15 per 10,000 (HMIS 2008)	X	X	HMIS	Input	Annual

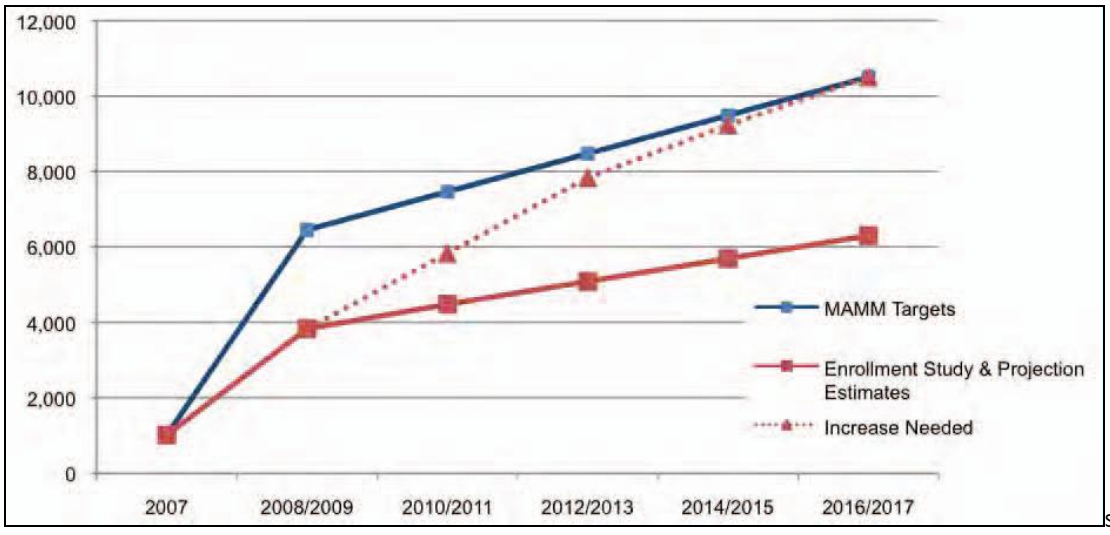
Source: MOHSW (2008a) based on analysis of government payroll
Note: HMIS=health management information system

6.6 HUMAN RESOURCE FOR HEALTH TRAINING AND DEVELOPMENT

Another serious HRH challenge is the existing low production capacity both quantitatively and qualitatively. There are knowledge and skills gaps among health workers due to the fast technological advancements in health. The training and supply of health workers has not kept pace with health sector needs, either quantitatively or qualitatively. The country has 116 training institutions, 72 of which are government owned and 44 are private sector or FBO owned (MOHSW 2008a). There are seven medical universities, six of which are privately owned; 59 allied health colleges; and 57 nursing colleges, both public and non-public (MOHSW 2008a). For the past 10 years, the output from medical schools is 23,474, which includes all health worker cadres from certificate to postgraduate studies. The training institutions face challenges including infrastructure shortages (classrooms and hotel facilities, clinical preceptors), inadequate numbers and skills of their teaching staff, inadequate capacity to plan and manage the institutions due to insufficient funding.

The MOHSW's objectives under MMAM call for an increase in health training institution enrollment over a 10-year period from 1,013 students to 10,499 by 2017 (MMAM 2007). The MOHSW HRH Strategic Plan projected that new enrollment in pre-service institutions would reach more than 6,000 students by the middle of 2008 (MOHSW 2008a). However, the rapid assessment of enrollment trends conducted for the HRH Working Group in 2009 showed that in September 2008, the new enrollment rate was only 3,831 students instead of the targeted 6,450 students (Figure 15).

FIGURE 15. MMAM ENROLLMENT TARGET, 2009 ENROLLMENT STUDY FINDINGS AND PROJECTIONS



Sources: MOHSW 2006, MOHSW 2009a

Although the growth from 1,013 students to 3,831 students was substantial, the planned building of dispensaries and health centers through MMAM requires that the MOHSW and its partners keep expanding training capacity in order to fully address the HRH crisis. As Figure 15 indicates, if the enrollment trend continues at only 60 percent of the MMAM targets as it did in 2008/09, the gap between actual and projected health training institution enrollment will continue to increase. Swift

action is needed to correct the course of this trend. Most recently, there have been aggressive efforts to increase training capacity and to enroll students. For 2010/11, enrollment for nursing, allied health and undergraduate students was 6,713, surpassing the MMAM target of 6,450.

6.6.1 PRE-SERVICE TRAINING

Although Tanzania has a total of 116 public and private health training institutions, 21 approved institutions provide the bulk of pre-service training. The increased numbers of pre-service health training institutions and existing schools expanding and taking on more tutors has resulted in more health workers being available. The Muhimbili University College of Health Sciences has increased its intake from 50 to 200 medical students per year and developed post-graduate programs for medical personnel and support staff. In addition, the MOHSW reports that since 2006, more key medical staff has been sent for long-term overseas training. There has also been an increase in the number of HRH auxiliary paramedical personnel training schools in recent years. The HRH strategic plan 2008-2013 observes that, between 1995 and 2005, pre-service health training institutions produced a total of 23,474 health workers. However, this is still far below the requirements of the sector, as the current overall deficit exceeds 90,000.

There are concerns about the quality of the training provided in relation to National Council for Technical Education and Tanzania Commission for University Standards. In response, there has been a review of curricula in training institutions, with 17 out of 22 reviewed and revised to incorporate more competence-based training. The pre-service training institutions also face problems with shortages of classroom and hostel facilities, clinical preceptors, tutors and teaching aides, inadequate re-training of tutors, and insufficient funding. Some pre-service training institutions have donor funding but there are continuing problems of sustainability. The increase in the number of health personnel training schools has also created logistical problems for health personnel professional bodies that monitor the quality of training across the country.

6.6.2 IN-SERVICE TRAINING

As Tanzania faced large numbers of staff with relatively low qualifications having clinical responsibilities in health facilities, a policy was introduced to encourage existing staff to upgrade their skills and knowledge in order to improve performance. The upgrades being emphasized include from MCH aide to public health nurse, assistant clinical officer to clinical officer, clinical officer to assistant medical officer, pharmacy assistant to pharmacy technician, and laboratory assistant to laboratory technician. These in-service courses are usually undertaken at the initiative of the individual staff with support from the DMO, but have to be approved by the MOHSW. Costs are borne by the MOHSW and the staff member. The staff retains their salary and their post while in training; however, the cost of training borne by staff can be a disincentive. An important negative effect of this in-service training is the absence of staff members while in training courses, creating increased workloads for the staff who remain on site, as temporary replacements are never available.

6.6.3 ZONAL TRAINING CENTERS

The MOHSW has increased the number of ZTCs, which offer both basic and post-basic training, from six to eight in order to facilitate the upgrading of health workforce skills. The ZTCs also conduct structured monitoring of the various health training institutions in their respective catchment areas.

In recent years, the ZTCs have helped to train all CHMTs and RHMTs in using the CCHP planning guidelines. Recently, ZTCs have been offering short courses in Council Health Management, Integrated Management of Childhood Illnesses, and the use of PlanRep2 Guidelines for developing CCHPs, using tools developed from the national expansion of the Tanzania Essential Health Intervention Program (TEHIP).The tools program also provide ZTCs with guidance to develop business plans. The ZTCs have been able to attract skilled core staff, mobilize financing, and conduct better marketing of their services. These are areas in which ZTCs still face serious problems and limitations in their effectiveness.

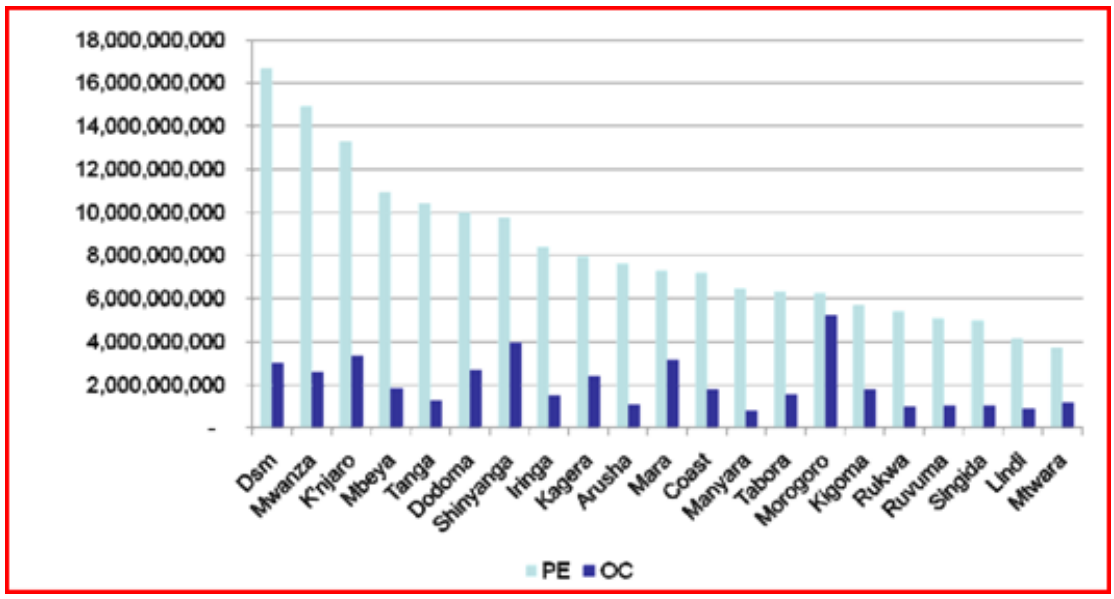
6.6.4 TRAINING ON BASIC SKILLS OF OPERATIONAL RESEARCH ON HUMAN RESOURCES FOR HEALTH AND HIV/AIDS

The NIMR under a cooperative agreement with the Centers for Disease Control and Prevention (CDC) has organized a tailor-made training of basic skills on operational research with a focus on HRH and HIV/AIDS. The target group for the training has been CHMT members. It is envisaged that this course will give CHMTs the basic skills for carrying out small-scale research in order to generate evidence for planning and prioritization. The HSA team suggests that approved protocols could be financed under the district health basket provided they are included in the CCHP. The ZTC could work with NIMR in order to institutionalize the methodology in the ZTC's programs.

6.7 HRH FINANCING

Despite increased funding for the health sector, there is no evidence to show that there is a greater pool of skilled health workers in Tanzania's health facilities. The 2008 PER findings show a wide gap between the HRH resources and the costing figures as stipulated in the HSSP III. If HR needs as identified in the HR Strategic Plan are to be met, about 20 percent of the MOHSW budget should be allocated to HR development. However, only 6 percent of the MOHSW budget has been allocated to HR development in 2008/09, representing approximately 31 percent of total resource requirements for HR. The "formula-based" distribution of block grant funds for health has never been applied to personnel. Budgetary funds go where the health workers are, not where there are greatest health needs. More equitable redistribution of existing health staff is the most immediate measure that can and should be undertaken, given the critical and chronic shortage of health workers. Figure 16 shows that funding for personnel is unrelated to funding for other charges, with funding for personnel significantly higher in urban areas that are desirable work posts, while funding for OCs are based on needs.

FIGURE 16. ALLOCATION OF FUNDS TO LOCAL GOVERNMENT AUTHORITIES FOR PERSONNEL EMOLUMENTS AND TO OTHER CHARGES



Source: MOHSW (2009a))- CCHP report 2009/2010

The MOHSW recently submitted a $176 million, five-year health systems strengthening proposal to the Global Fund to Fight AIDS, Tuberculosis and Malaria. More than half of the funding is targeted to HR: $57,843,731 for the production of health workers and $44,335,583 for enhancing health workforce recruitment and retention to scale up services. The proposal has been approved and the MOHSW is in the position of planning the program for the first two years in 2010-2011. Other donors have expressed an interest and willingness to provide additional funding to support the MOHSW's Health Workforce Initiative (HWI).

The health PER update for the period ending in FY 2008 indicated that the available expenditure information was insufficient to provide an indication about spending trends in HR. A separate study has been recently commissioned to: i) identify how resources are mobilized and channeled into institutions and used, ii) determine who pays and how much is paid for HRH, iii) present how HRH funds are distributed across regions, districts, health facilities, and training institutions, and iv) determine what areas are benefiting most from the current HRH expenditures.

6.8 LEADERSHIP AND STEWARDSHIP OF HUMAN RESOURCES

To effectively perform its HR leadership and oversight functions, the MOHSW is expected to work in partnership with other service providers and line ministries that have HR management responsibilities. The implementation of previous HRH strategic plans did not proceed as intended, primarily for two reasons: uncoordinated effort and little funding. Future plans must address these issues, but this calls for development of strong HR management, leadership skills, and stewardship at central, regional, and district levels.

The current budget allocation for HR is inadequate to address specific problems such as workforce retention, capacity building, improvement of operational environment, and infrastructure development. Hence, deliberate efforts are required to enable HR to contribute to the achievement of the MMAM objectives. Therefore, there is a need to advocate for significant allocation for the HR as it is a fundamental requirement if high-quality and accessible health services are to be achieved.

6.9 PARTNERSHIPS IN HUMAN RESOURCES

Promoting PPPs is a key HSSP III strategy. The MOHSW Hospital Services Directorate has a unit dealing with the coordination of private health facilities to ensure quality health services provision. There is also a PPP working group. The Private Sector Training Services are coordinated under the Human Resource Development Division. Outsourcing of noncore function to the private sector is coordinated by the Directorate of Administration and Personnel while Private Social Welfare Services are coordinated by Social Welfare Commission.

Private sector providers, particularly FBOs, are important actors in the health sector. The MOHSW provides grants to FBO providers based on the size of the facility. Similarly, the government provides grants to the FBO training institutions according to the school capacity. Support is also provided to FBOs through staff secondment arrangements. Better coordination is needed in the area of HR including appropriate staff supervision, training, and monitoring staff migration trends.

6.10 KEY FINDINGS AND RECOMMENDATIONS

Findings

- The sector strategy documents clearly demonstrate an understanding that HRH is an important limiting factor in achieving sector objectives and government is making concerted efforts to address the problem.
- HR management is a high priority and significant investments have been made. Nonetheless, further strengthening is needed to improve management to ensure that facilities are sufficiently staffed.
- MOHSW efforts in providing management skills training to CHMT staff, as well as regional and central level staff are commendable.
- Continued problems of understaffing and significantly under-motivated health workers staff in underserved areas has contributed low quality of health service delivery in these areas.
- The needs-based formula for distribution of block grant funds for health has does not apply to personnel. Budgetary funds for personnel go where the health workers are, not according to need.
- Staffing level norms are identical for each health facility of the same type (hospital, health center, or dispensary), irrespective of utilization levels, resulting in very uneven workloads between facilities.
- The approach to capacity building using off-site meetings and seminars as opposed coaching and on-the-job training is ineffective. There is high absenteeism as staff are attracted to financial incentives (per diem) given during off-site trainings, seminars, workshops, and other meetings.
- The qualifications of many existing CHMT members do not meet the job description requirements.
- There is low enrollment of students coming from rural regions/districts in pre-service training institutions, negatively impacting the retention of staff in these areas.

Recommendations

- HRH management needs to be taken urgently at all levels of the MOHSW, including strengthening the skills and resources of the HRH Management Unit.
- Where feasible, the health sector should strive to implement some form of incentive package to motivate staff and promote retention, particularly in rural areas.
- Review and if necessary redesign funding allocation formulas to address the inequity of HRH among regions/districts.
- Staffing norms should be revisited and a mechanism put in place for CHMTs to determine staffing of health facilities based on the workload and the type of services rendered by the facility
- More coaching and on-the-job training of CHMTs and technical staff is necessary and off-site seminars and workshops should be discouraged.
- Rationalize and reorganize the responsibilities of the CHMT by reviewing all of the functions (supervision, monitoring, reporting) assigned by various programs and departments to define a core set of efficient management functions that can be implemented to meet all the priority needs.

- Streamline HR procedures, and develop an orientation process for those posted, particularly to remote facilities. In addition, simplify the recruitment process to reduce the current number of days it takes to fill a vacancy.

7. PHARMACEUTICAL MANAGEMENT

Effective management of medical products and pharmaceuticals is critical to high quality service delivery. The MOHSW's HSSP III identifies medicines and supplies as a key issue in implementation of its 11 health strategies.

7.1 OVERVIEW

Expenditures on pharmaceuticals in 2000 was 10.4 percent of total health expenditures, valued at approximately $1.00 per capita, according to The World Medicines Situation (WHO 2004). More recent figures show that expenditures have increased significantly, both in absolute terms, and as a percentage of total health expenditure. While increases have come from government and other sources, total expenditures are still considered insufficient.

In 2006/07, the total value of medicines delivered through health facilities was $315.2 million, or just under $8 per capita (MOHSW 2008b). Of this, the largest categories of medicines were essential medicines (20.9 percent), antiretrovirals (18.0 percent), and antimalarials (17.2 percent), as detailed in Figure 17.

FIGURE 17. EXPENDITURES ON PHARMACEUTICALS IN 2006/07

Category of Product	# Donors	Total Expenditures 2006 2007 ($)	Total Expenditures 2006 2007 (%)
Essential Medicines	3	$65,869,000	20.9%
Anti-retroviral HIV/AIDS medicines	9	$56,853,000	18.0%
Antimalarial	3	$54,201,000	17.2%
TB medicines	2	$4,700,000	1.5%
Medicines for opportunistic infections	7	$3,722,000	1.2%
Pediatric formulations for HIV/AIDS and malaria	4		
Vaccines	3	$17,300,000	5.5%
Contraceptives	2	$17,734,000	5.6%
Condoms	3	$3,905,000	1.2%
Medical supplies	5	$53,859,000	17.1%
Reagents for blood safety including HIV test	13	$37,027,000	11.7%
TOTAL		**$315,170,000**	**100.0%**

NB: Actual value of the directly donated goods was not wholly captured; the percentage contribution by partners would have been significantly higher if the actual value of all donated goods is captured).

As Figure 17 shows, while the total amount has increased significantly, 63 percent–79 percent (depending on how medical supplies are allocated across diseases) of public pharmaceutical expenditures go to five programs (AIDS, TB, malaria, family planning, and immunization), with 21 percent–37 percent going to treat all remaining diseases and conditions.

Within the MOHSW, the Pharmaceutical Services Unit (PSU,) part of Curative Services, coordinates pharmaceutical management and requirements. The PSU is responsible for pharmaceutical policy, providing technical support, budgeting for pharmaceuticals and supplies, and forecasting medicine and supplies needs for all public facilities, as well as FBO facilities. Government funding for medicines and supplies is allocated through the PSU. PSU in turn allocates to MSD accounts for individual health facilities at all levels of care. The MSD is responsible for procurement and distribution of all public sector medicines and supplies. Lastly, the TFDA is responsible for medicine quality, including overseeing medicine distribution mechanisms in both public and private sectors.

The MSD is a semi-autonomous, public non-profit entity responsible for procurement, storage, and distribution of medicines and medical supplies. It operates nine zonal stores, each serving 2-4 regions. The MSD distributes pharmaceuticals and medical products to all public and NGO health facilities. It is also the only authorized importer of narcotics, and provides these medications to public and private providers.

Of the pharmaceuticals distributed through health providers, 56 percent are distributed through public facilities, with the remainder distributed through FBOs (30 percent) and for-profit providers (14 percent) (MOHSW 2009b). Table 16 summarizes the key actors in the distribution of medicines in Tanzania.

TABLE 16. DISTRIBUTORS OF PHARMACEUTICALS IN TANZANIA

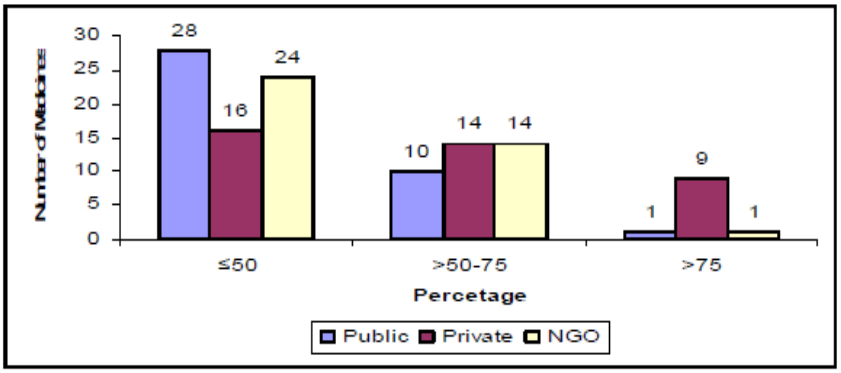
Institution	Number	Description/Role
Medical Stores Department	1 central store, 8 zonal stores	Procures, stores and distributes medicines to all public and NGO health facilities.
Private wholesalers	197* (as of Mar 2007)	Procures and distributes medicines to hospitals, pharmacies, and drug sellers.
Health facilities	5,379** (public, NGO, and private)	Majority are public and NGO facilities.
Drug sellers (duka la dawa baridi, DLDB)	6,000+*	Licensed to sell nonprescription medicines only.

*Source: Euro Health Group 2007.

** Source: MOHSW, 2009b.

Availability and access to medicines is a critical issue, with many studies showing problems with chronic stock outs of essential medicines. Data from 2007 (Figure 18) shows that of 40 tracer medicines, only 11 medicines were available in over 50 percent of the public facilities surveyed (MOHSW 2007c). By comparison, 23 of the 40 medicines were available in private facilities, while 15 of the medicines were available in NGO facilities.

FIGURE 18. AVAILABILITY OF MEDICINES BY TYPE OF FACILITY



Overall HR shortages limit the ability of the PSU to function effectively. According to the Pharmacy Council, there are estimated 640 registered pharmacists, 352 pharmacy technicians, and 312 pharmacy assistants. Other documents refer to 800 pharmacists and 600 pharmacy technicians. The PSU consists of nine staff[10] at the central level, supported by regional pharmacists and district pharmacists at each level, who are staff of their regions and councils. Regions play only a small role in pharmaceutical management, because districts provide medicine orders directly to the MSD. It is estimated that only about 55 percent–60 percent of the district pharmacists have pharmacy training. In remaining districts, the post is unfilled, with a nurse taking on some of the responsibilities. An assessment of the pharmaceutical HR situation was undertaken in 2009, revealing critical shortages of pharmaceutical staff. A framework for development of pharmaceutical staff was developed, but has not been implemented.

The general perception is that pharmaceutical dispensing and management is undervalued. Local governments have to fund pharmacist positions, and those making decisions place a low priority on this function. During the assessment team's visit to the Mtwara Regional Hospital, the two staff dispensing medicines in the pharmacy were medical attendants (normally responsible for housekeeping duties).

External support and input on pharmaceutical supply under the SWAp technical working groups (TWGs) goes to Pharmaceuticals, Commodities, Infrastructure, and Food Safety. This last TWG was expanded in 2009 to include infrastructure and food safety, significantly expanding its scope of work and diluting its technical focus.

7.2 PHARMACEUTICAL POLICY, LAWS, AND REGULATIONS

The National Medicines Policy was revised in 2008. The National Essential Medicines List for Tanzania (EML) and Standard Treatment Guidelines (STG) were updated in 2006 and 2007, respectively. Although some facilities did not have access to the new guidelines for some time, all facilities have now been sent copies of the EML and STG.

The TFDA is responsible for the regulation of medicines and medical devices, and oversees private and public drug outlets (including hospitals, health centers, medicine wholesalers, and drug shops). TFDA has

[10] The PSU staffing level information is from a key informant interview.

four regional offices to support its work, but capacity for regular inspections and enforcement of regulations is weak. They have also delegated responsibilities to the councils, which have limited capacity.

7.3 PROCUREMENT, STORAGE, AND DISTRIBUTION

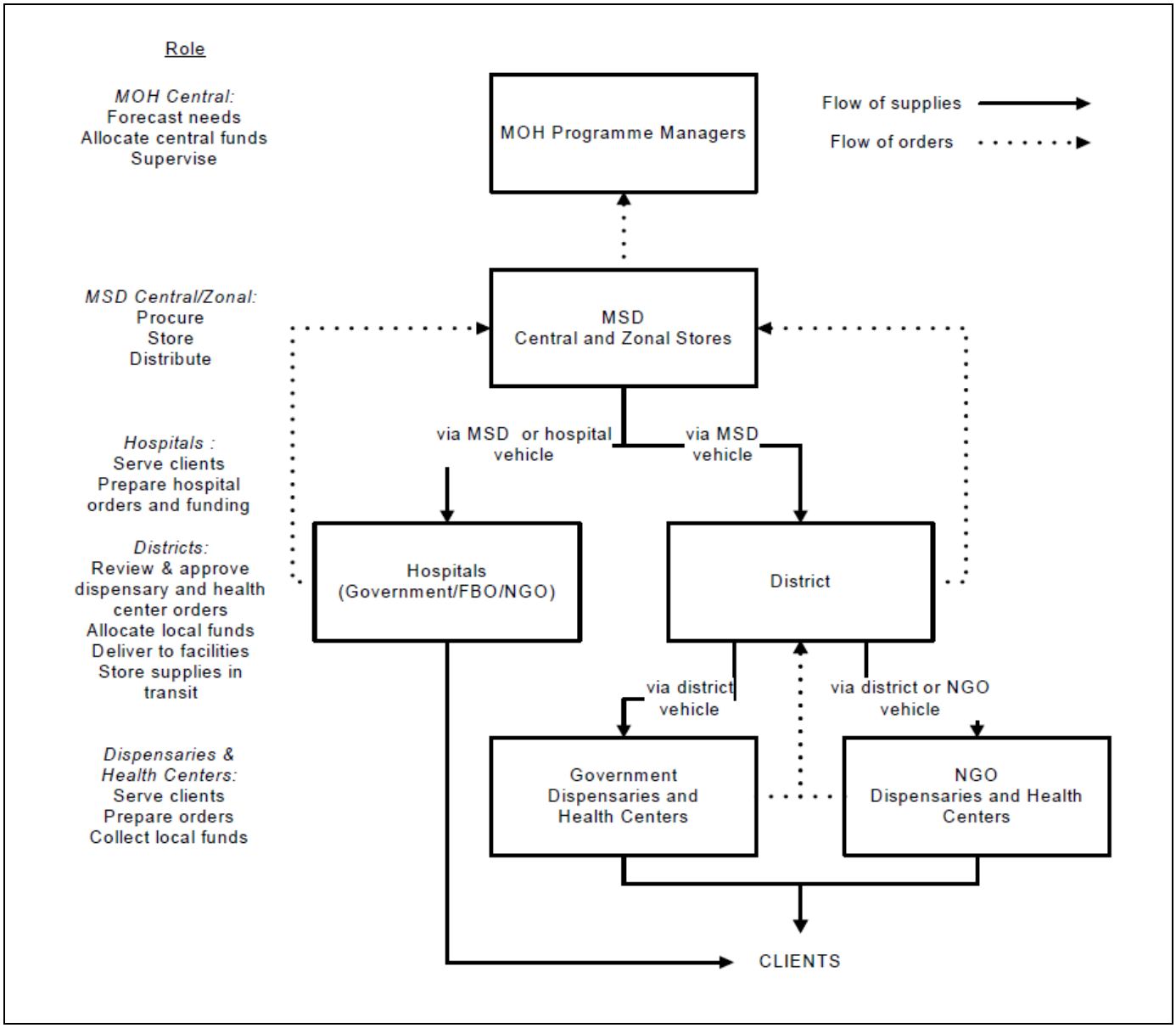
The large majority of medicines and supplies (90 percent) procured using the government budget (including budget support from development partners) is procured through the MSD. Approximately 53 percent of medical products were procured with government funding in 2006-2007. The remainder of the medical products, particularly those funded through nongovernment sources, are procured through international procurement agents.

The MSD follows the Public Procurement Act no 21 of 2004, procuring through international competitive bidding. Data show that the prices obtained are good, averaging 0.69 times international reference prices (Ministry of Health and Social Welfare 2004). However, the processing time takes approximately 9-12 months. The MSD's procurement functions have been assessed by the Tanzania Public Procurement Regulatory Authority, as well as by the Global Fund, both with very positive reviews. The MSD has also adopted new contracting mechanisms (discussed below) that reduce the lead time.

The MSD central and zonal medical stores are generally found to be functioning in accordance with good storage practices, where stocks are secure, protected from sunlight, properly ventilated, well organized, and clean. The USAID-funded Supply Chain Management Systems project is supporting upgrading of four of the zonal stores to state-of-the-art warehousing facilities that will allow better stock management. A study in 2007 found storage conditions in 63 percent of hospitals and 50 percent of health centers and dispensaries to be of acceptable quality (Euro Health Group, Denmark and MOHSW 2007). This same study found 17 percent of health centers and dispensaries to be very dirty and untidy.

Tanzania fully transitioned to an Integrated Logistics System (ILS) from one based on distribution of standard essential medicine kits as of 2009. Both government and NGO health centers and dispensaries send orders to the district on a quarterly basis. The districts review and approve orders and send them to the MSD. MSD processes the orders and debits the facility accounts. Districts may allocate supplementary funds from local sources. Hospitals can place orders with the MSD for medical supplies as needed. The MSD delivers orders placed to districts, while districts are responsible for delivering medical supplies to their health centers and dispensaries. Figure 19 summarizes the distribution system. In reality, there are problems with the logistics system, as discussed in the section regarding access to medicines.

FIGURE 19. TANZANIA PHARMACEUTICAL SUPPLIES AND LOGISTICS SYSTEM



As a result of a directive from the Senior Management, the distribution system is being reformed. Under the new system, the MSD will deliver directly to all facilities, cutting out the CHMT's role in physical delivery. However, the DMO will still approve individual facility orders prior to sending to MSD. This new system has been piloted in one region (Tanga), to assess the additional resources required within the MSD. It is unclear how this will affect the MSD's service fees and initial capital investments required (expanded transport fleet).

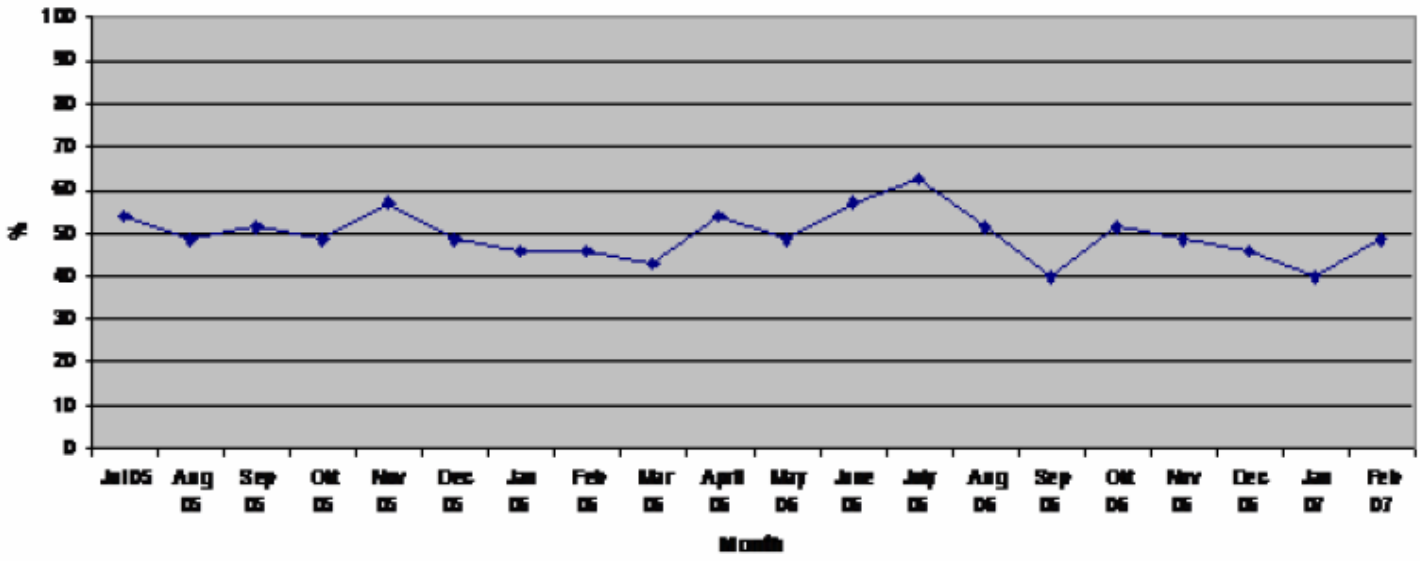
The MSD provides distribution services for all of the essential drugs as well as medicines and supplies for vertical programs. The vertical programs may have their own arrangements for procurement, and districts may not order through the ILS. The TB and Leprosy program procures its drugs through the Global Drug Facility, with the MSD responsible for clearance and distribution once medicines are in

Tanzania. The TB program is not part of the ILS, the integrated system for ordering and stocktaking. Instead, the central program provides distribution instructions to the MSD, which unlike with other medicines, only distributes to the regional level. There are then Regional TB Coordinators who deliver down to district and facility level. Similarly, the National AIDS Control Program (NACP) determines the products and quantities needed for the AIDS program, which are procured by both the USG-funded Supply Chain Management (SCMS) project using PEPFAR funds, and the MSD using GOT and Global Fund funds. Once in-country, the supplies are the responsibility of the MSD for distribution. Facilities place orders through the CMHT, with support from zonal SCMS coordinators, who ensure that orders are placed and supplies are in place.

Malaria medicines and family planning supplies are delivered according to facility orders as part of the ILS. In Mtwara region, the responsibility for family planning and AIDS supplies at district and regional hospitals was delegated to individuals within the MCH and CTC units, and not within the responsibility of the pharmacist in charge.

Procurement and distribution through the MSD has strengths and weaknesses. Although low pricing is an important benefit, this must be weighed against ongoing supply problems within the MSD. A study of stock over 18 months from 2005 to 2007 (Figure 20) shows that the MSD had less than a three-month supply of approximately 50 percent of a list of tracer medicines (Euro Health Group, Denmark and MOHSW 2007). So even though the MSD may show over 90 percent in-stock of critical medicines, the supplies may be so low that when an order arrives, it is not filled entirely to avoid depleting stocks. This is also confirmed with data on order fulfillment showing that 68 percent of orders at hospitals and 67 percent of orders at PHC facilities (health centers and dispensaries) were filled. The MSD estimates that it is currently fulfilling between 70 percent and 90 percent of all orders.

FIGURE 20. PERCENTAGE OF TRACER ITEMS WITH A THREE-MONTH STOCK



Management of suppliers within the MSD has been weak and was identified to be an important part of the medicine logistics problem. A study in 2007 found that less than 50 percent of items arrive on time, based on contract terms (Euro Health Group, Denmark and MOHSW 2007). Moreover, there was no system in place to monitor contracts or orders, working with suppliers to expedite orders particularly if stocks reach critical levels. The MSD has taken two important steps to address this problem. It is

moving toward framework contracts with all its suppliers; these are multi-year contracts whereby future orders are contingent on past performance. In addition to motivating better supplier performance, the lead time is reduced to three months for subsequent orders. Further, the MSD has introduced more systematic contract management procedures that identify specific checkpoints where action is taken if deadlines are not met.

7.4 PRIVATE DISTRIBUTION OF PHARMACEUTICALS

As of March 2007, there were 197 private medicine wholesalers registered with the TFDA, although the TFDA estimates that most of those registered are not active. Most operate from Dar es Salaam, procuring from international and domestic suppliers and distributing to 352 pharmacies and over 6,000 private medicine sellers. These wholesalers are an important part of the pharmaceutical supply chain, distributing to private health facilities, pharmacies, and medicine sellers, as well as to public and NGO hospitals.

Both public and faith-based hospitals use the private wholesalers to supplement their supplies from the MSD. The Catholic Ndanda Hospital in Masasi District estimated that approximately half of their medicines and supplies are purchased through private wholesalers. Their prices are higher than those of the MSD, but their stocks are much more reliable. We do not have data on the proportion of medicines at public hospitals provided by private wholesalers.

Private medicine sellers (Duka la Dawa Baridi, or DLDB) are often health providers in remote areas. Data from 2001 show that private medicine sellers and general shops accounted for 31 percent and 34 percent, respectively, of provider visits for fever and malaria in rural areas (Goodman 2007). Private facilities also provide 23.4 percent of contraceptives for current users (primarily oral contraceptives and condoms) (National Bureau of Statistics [Tanzania] and ORC Macro 2005). Studies show that availability of tracer medicines was most complete in private health facilities, compared with public and mission facilities (MOHSW 2007b). At the same time, however, cost of medicines is 30 percent to 32 percent higher in the private sector (MOHSW 2007b).

With an estimated 6,000+ stores, private medicine sellers constitute the largest type of licensed outlet for medicines. The total number of all types of health facilities is estimated to be less than 5,000 (including public, private and mission hospitals, health centers, and dispensaries) (Euro Health Group, Denmark and MOHSW 2007). By law, DLDB is only allowed to sell non-prescription medicines. However, studies show the large majority (85 percent in Dar) sell some prescription medicines.

Originally piloted through a USAID program, the GOT has committed to adopt the Accredited Drug Dispensing Outlet – ADDO (Duka la Dawa Muhimu, DLDM) program throughout the country. ADDO is an effort to professionalize medicine sellers, with outlets meeting minimum requirements in staff training, drug quality, and availability, sanitation, and hygiene. Two important improvements are that each ADDO has two trained dispensers (who undergo a five-week training program) and only sell a pre-approved list of medications, including 49 prescription medicines, largely corresponding to the list of EML for dispensaries. ADDOs may purchase medicines from any registered wholesaler, and set market prices. Implementation of the ADDO program includes training for local officials to certify and monitor ADDO standards.

The goal was to upgrade all DLDB to the standards of ADDO by 2010; however, there are only 1,515 ADDOs across 12 regions today. Further expansion has not occurred primarily due to lack of funding. Implementation of ADDOs is largely dependent on donor funding, with USAID and the Bill and Melinda

Gates Foundation being the key donors in the past. Funding is included in the Global Fund proposal for Rounds 7 and 9, and further expansion awaits additional funding.

For existing ADDOs, there is little follow-up and support. Under decentralized management, the CHMTs are responsible for supervising ADDOs, providing reports to the TFDA. It is unclear whether any supervision is currently taking place, as the TFDA receives very few reports on the performance of ADDOs. There is limited funding at the central level to conduct supervision – it was estimated that in 2009 visits were made to four regions, and a few districts in each region.

The assessment team visited two ADDOs, and one Level 1 pharmacy in Mtwara region. One ADDO was recently upgraded, with the attendant having completed his training in 2009. The attendant was a retired nurse, and operated the shop, which was owned by his son. After the training, he was inspected and received a list of required renovations, which he has just completed. He has notified the council authorities so that they may return to inspect is shop, so he may be officially qualified as an ADDO. Another ADDO visited was across the road from the Mtwara Regional Hospital. The attendant reported that the owner was a doctor at the hospital, and that she was a nurse at the hospital. She reported that patients from the hospital often come because medicines are not available at the hospital. Lastly, the team visited a pharmacy in Mtwara town. The facility was in very good condition, with several staff. The owner was a clinical officer in a nearby health center, and was in the facility. He estimated that approximately 30 percent of his customers came to the pharmacy directly, while the rest came with prescriptions after visiting a health facility. His medicines came from a wholesaler in Dar es Salaam. Neither the ADDOs nor the pharmacy kept copies of the prescriptions.

7.5 APPROPRIATE USE

There is little rigorous data regarding rational medicine use. However, the general impression from organizations working in the area of pharmaceutical supply chain (pharmacists, partners in pharmaceutical management, MSD) is that medicine prescribing and medicine use practices are poor. Doctors tend to overprescribe, prescribing too many medications and multiple medications for the same treatment (antibiotic combinations). Doctors often prescribe unnecessary medications that are not part of standard treatment guidelines. Patients do not always use medications as prescribed – some patients take partial doses due to medicine cost. Further, patients pressure providers to prescribe many medications, as that is associated with good care.

Most of the interviewees also reported that little has been done to make improvements in this area. Every health facility should have a copy of the STGs, but little is done to discipline doctors who do not prescribe accordingly. One area to explore may be to use the NHIF to reinforce STGs, by tying reimbursement to adherence to the guidelines. Consumer education is another option for reducing over-prescribing practices.

The Strengthening Pharmaceutical Systems (SPS) project is working to promote rational use of ART. While there are STGs, they can be complicated to follow. Inconsistent availability also affects rational use, as patients will be switched to different treatments solely based on the stock on hand. The project is working to develop clear treatment protocols and train providers.

7.6 ACCESS TO QUALITY PRODUCTS

The TFDA ensures the quality of medicines by testing of all imports and post-marketing surveillance. Medicines imports are carefully monitored and testing is conducted prior to entry. The TFDA also conducts regular testing of medicines in the marketplace through random selection.

Substandard or counterfeit medicines do not appear to be a serious problem in Tanzania. The TFDA estimates that there may be a few cases of counterfeit medicine, mostly lifestyle medicines, although it has also discovered counterfeit malaria medication. There have been some issues with substandard malaria medicines, but generally the quality failure rates are low.

Although there are signs of improvement in medicine availability, it remains a critical issue. A study was conducted in five regions in early 2010, tracing malaria medications, family planning supplies, and three essential medicines. The stock out rates for the medicines ranged from 32 percent to 54 percent, but stock outs for family planning supplies were much higher, 77 percent for Depo-Provera.[11] Table 17 presents those findings. This severe contraceptive supply problem stems from national-level funding issues, and was confirmed in Mtwara region, which also reported severe shortages in the first half of 2010. A few informants at district and regional levels did report that medicine supplies had improved in the last few years.

TABLE 17. STOCKOUT RATES FOR SELECTED ILS ITEMS

Item	Stockout Rate (%)
ALu 1*6	36
ALu 4*6	32
Quinine Inj	38
SP	38
Depo-Provera	77
Microgynon	74
Condoms	65
Albendazole	54
Amoxicillan	34
Cotrimoxazole	32

There are many potential points in the system where supply chain breakdowns occur – at the top of the chain is MSD procurement. For some items, MSD does not begin procurement until funds are provided by through government channels (MOFEA and MOHSW). In 2009/10, actual MOHSW disbursements for pharmaceuticals were only 75 percent of the budgeted amount. Although the team did not review MSD financial reports, several informants described the MSD as de-capitalized, with US$30 million outstanding due from the GOT. These funding irregularities prevent the MSD from making rational and timely procurements. Further, their procurements are based on historical consumption data, which reflects the historical medicine supply constraints and funding problems.

Despite initiatives within the MSD to improve stock shortages within their system, problems persist. While in Mtwara region, the team learned that examination gloves are out of stock at the regional hospital, and at the MSD zonal store. The MSD Mtwara reported that they are very short on gloves, and are only providing very small amounts to facilities. Based on their records, the last delivery of

[11] There were severe shortages of family planning supplies during the first half of 2010, but we were unable to investigate the causes.

examination gloves from MSD headquarters was February 2010, approximately five months prior to the HSA team visit. We also learned that gloves were at the port that day, waiting to clear customs.

There are also problems in the distribution chain – facilities do not place orders when they are supposed to or miscalculate their orders, CHMTs do not forward orders to the MSD on a timely basis, the MSD does not fill the order in full because of its own stock issues, and/or the CHMT does not deliver the goods from the MSD to facilities in a timely manner. Reports from 2005 to 2007 also indicate a problem with the MSD withholding orders because facilities did not have sufficient funding in their accounts due to erratic funding transfers. While funding is still erratic, the MSD now informally allows health centers and dispensaries to carry a negative balance up to its budget for one quarter so as not to delay deliveries. However, that credit is not extended to district or regional hospitals, which must have funds in their account at the time of order – although it appears that negative balances may also be occurring on an exceptional basis. The Masasi District Hospital reported that they currently have a deficit of approximately Tsh 10 million with the MSD, but that they were not being extended any more credit.

Studies from a few years ago showed problems with quantification and forecasting, but more recent studies (2010) show that nearly 80 percent of staff were forecasting correctly (DELIVER project 2010). However, there are still problems with facilities ordering out of turn. The ILS assigns all health facilities to one of three groups (A, B, or C) with each group assigned to place its ILS order during a specified month each quarter. Recent data show that this procedure was not being followed. The assessment team found that Masasi District Hospital was out of stock of Triomune, the most common AIDS treatment. The problem was reported to the MSD zonal store and the zonal supply chain monitoring advisor. The SCMA reported that a pharmacy assistant from Masasi District Hospital had been at the store one week earlier, and had not ordered Triomune. Lack of coordination between essential medicines and vertical programs is a significant system impediment.

Orders from hospitals tend to be more erratic because they can only order when they have money. The amounts ordered by hospitals are based on funding available as much as stock needs and consumption forecasts. If a hospital receives a large inflow of funds, they may want to place a very big order. Generally, hospitals order as much as they can afford. However, when funding is low, it is not clear how they prioritize among different items, or whether they ration their order evenly among all the needs.

Hospitals also can purchase medicines and supplies from private wholesalers using facility generated funds (user fees, NHIF reimbursements, etc.) if items are not available through the MSD. In principle, health centers and dispensaries may also purchase medicines on the private market, but they tend to do so much less frequently. Some health centers may not know this is an option, and some may not bother to access their funds because of the bureaucratic process.

The RHMT plays a supervisory and coordination role, but has no funding or authority to intervene even during severe stock outs. The regional pharmacists primarily look after the pharmacy at the regional hospital and conduct supervision, but are not accountable for the supply chain. At the district level, the DMO is accountable to the DEDs, whose interest in health services varies.

According to the ILS, the stock on hand at the facility level may vary from a three- to a seven-month supply, with a clear formula for calculating quantities to be ordered, such that there would always be a minimum three-month supply to act as a buffer. Informants agreed, however, that facilities are generally unable to maintain a minimum stock of three months of essential medicines. Facilities may order properly, but orders are generally not fulfilled 100%. Further, RHMTs and CHMTs are not meant to maintain buffer stock, so there is no intermediate back-up at those levels. Medicine supply problems cannot be corrected without bringing facilities to the three-month supply as a baseline, nor having a

second line of buffer stock. For example, the TB program, which reportedly has no stock out problems, maintains a six-month buffer at the central level, three-month at the regional level, and three-month at the district level. In total, there is a one-year buffer stock nationally.

Another issue in the supply chain is that the MSD has no system for responding to back orders. If a request is received for an item that is out of stock, or low on stock, the item is not shipped. But the facility receives no information on when stock is expected, nor are they notified when the item is restocked. Given the MSD's issues with maintaining stock levels, order fulfillment can be quite random – if your order arrives when the item is out of stock, you will not receive it until you place another order next quarter. A scenario where a facility's unfilled item becomes available the week following the order, and remains available for the next two months, but then is out of stock in the third month, when the facility next places an order, is entirely feasible.

7.7 KEY FINDINGS AND RECOMMENDATIONS

Findings

- Investments in MSD over the last several years are improving the procurement process, and shortening lead times.
- MSD has identified ways to work around administrative issues related to financing flows, alleviating one of the causes of medicine stock outs.
- Implementation of the ILS nationally was completed in 2009, although additional support to the facilities is needed to improve its functionality. Support and supervision from the district and regional levels is lacking due to limited staffing and lack of accountability.
- Consistent availability of medicines and supplies in health facilities remains a big challenge. Irregular and insufficient funding negatively impacts the MSD's ability to procure sufficient volumes on a timely basis.
- The very limited number of pharmacists at the district level are overwhelmed with their theoretical workload, which includes supervising every health center and every medicine seller each quarter. The HR constraints in the area of pharmacy are even more severe than for other cadres of staff, which unqualified staff dispensing medicines even at hospital level.
- There are many competing priorities at the district level, and little attention is paid to ensuring medicines and supplies are available in facilities when needed. The DMO is not held accountable for medicines availability.
- It is unclear how the MSD's new mandate to distribute directly to all facilities will affect medicine availability. Careful monitoring is required to document changes in medicine availability.
- Lack of medicines in facilities means that patients often must go outside to private outlets and pay much higher prices. For the poorest patients, these prices are often unaffordable, and contribute to misuse of medicines (partial doses).
- Some of the vertical programs are much better able to manage their medicine and supplies because there are more support mechanisms and they are managing a much small set of items. The TB program has regional TB coordinators, while HIV/AIDS has regional and district AIDS coordinators, as well as supply chain monitoring advisors at the zonal level focused solely on supplies. Problems

with supplies of essential medicines (medicines that are on the EML but not part of a vertical program) are left solely to the district pharmacist, and possibly the DMO.

- There is little engagement with private medicine sellers, even though often they are the first source for health care. Roll-out of the ADDO program is inadequately supported. While this model has the moral authority of the GOT, it cannot be effective if the supervision and inspection mechanisms are not in place – the current policy of relying on CHMTs does not appear to be functioning.

Recommendations

In light of the findings from our literature review and in-country data collection, we offer the following recommendations for improving access to pharmaceuticals:

- Undertake one-time fundraising to re-capitalize the pharmaceutical system, including infusions for MSD working capital, and facility-level buffer stocks.
- Improve central-level financial management to allow predictable funding flows.
- Support the MSD to put in place a system that allows it to communicate expected arrival dates for out-of-stock items, and to respond to backorders.
- Consider the addition of essential pharmaceutical coordinators at the district level (with basic support, i.e., transport) who would act as liaisons between facilities, MSD, and PSU to resolve medicine availability problems.
- Continue to improve staff capacity to implement the ILS, through support of the essential pharmaceutical coordinators, or other mechanisms.
- Undertake advocacy activities, involving community representatives, targeting the DEDs to promote the importance of allocating district funding for medicines, and for pharmaceutical management (pharmacists and pharmacy technicians).
- Provide financial incentives for the district pharmacist and the DMO based on performance of indicators such as stock outs of tracer medicines.
- Assess the feasibility of a contracting mechanism with a few suppliers to provide medicines at more favorable prices to district and regional hospitals to supplement MSD supplies.
- Assess the feasibility of creating a pooled purchasing mechanism for ADDOs for a limited set of high-priority medicines to provide lower prices for consumers.
- Identify alternative mechanisms for inspection of ADDOs to ensure continued high standards.

8. HEALTH INFORMATION SYSTEM

8.1 INTRODUCTION

The GOT places great importance on the functioning of the HIS and this is reflected in the new HSSP III (2009-2015). A national health management information system (HMIS) within Tanzania was designed and piloted between 1990 and 1994 and fully rolled out to all regions in 1997. Since the introduction of this HMIS (the MTUHA system), there have been no comprehensive revisions. The expansion of reportable conditions and the advent of vertical programs with their own demands for data have rendered the HMIS very inadequate, resulting in multiple and duplicative data collection and reporting subsystems. With the current scarcity of staff and other resources, these subsystems have rendered the MTUHA even more unresponsive to the information needs of the MOHSW and captured data is not only inaccurate but also incomplete and reported late.

A comprehensive modernization and strengthening of all aspects of monitoring and evaluation within the MOHSW is underway. This new project includes strengthening the HMIS to improve data collection, reporting, and use for decision making at all levels of the health system. It aims to integrate and harmonize all the existing (more than 10) subsystems, which have been created in an attempt to respond to the deficiencies of the main HMIS.

8.2 RESOURCES, POLICIES, AND REGULATION GOVERNANCE

The country does not have a national policy to govern the flow and use of health data. However, HSSP III recognizes the importance of health information and sets in motion clear steps towards strengthening this area. The five-year Operational Plan for HMIS Improvement (MOHSW 2008c) states that "the Tanzania health sector already has a wealth of high quality population-based data from Census, Surveys and Demographic Surveillance. The aspect that is presently weakest – and yet is the most essential for routine planning and management – is the routine Health Management Information System". However, the Ministry with the assistance of WHO-Health Metrics Network, has embarked on the process of developing this policy a draft is now ready and will be followed by the development of an HIS strategy.

The GOT has led efforts to secure the required funding for revamping and modernizing the HMIS and other aspects of monitoring and evaluation from donors such as Norway, Netherlands, PEPFAR/CDC and through the Health Basket Fund, as well as from the Global Fund, Round 9. The Health Metrics Network core group has carried out an assessment of the HMIS and proposed solutions to perceived weaknesses. Reforms in the HMIS are overseen by the Monitoring and Evaluation Technical Committee of the Health SWAp. By elevating these reforms to the SWAp committee level, this will help to ensure that the new HMIS will be sensitive to the demands of the current vertical programs and ensure that there is proper harmonization of data collection, dissemination and use.

8.2.1 HUMAN RESOURCES FOR HIS

The HR situation is dire across all categories of staff. Figure 21 shows the situation regarding administrative staff, among whom are the medical records officers and health secretaries who are primarily responsible for ensuring that data are collected and reported accurately and in a timely

manner. Seventy-four percent of medical records officer positions were unfilled as of December 31, 2008. As more fully explained in the HRH section of this report, the shortage of clinical health workers is equally critical. This makes it difficult for many clinicians to keep up with the record keeping required to capture patient information fully.

FIGURE 21. HUMAN RESOURCES STATUS OF ADMINISTRATIVE STAFF

No	Staff	Available	% Available	Deficit	% Deficit
1	Medical Records Officer	301	26	852	74
2	Launders	358	45	439	55
3	Catering Officer	33	14	195	86
4	Health Secretaries	149	51	141	49
5	Mortuary Attendants	481	62	291	38
6	Nursing Auxiliaries	11,989	90	1,399	10
7	Laboratory Assistants	840	60	553	40
8	Medical Attendant Dental	176	47	198	53
9	Pharmacy Assistants	261	46	301	54
10	X-ray Assistants	156	62	96	38
11	Accountants	240	57	184	43
12	Drivers	623	73	228	27
13	All others	4,066	71	1,634	29
	Total	**19,673**	**75**	**6,511**	**25**

Source: Department of Policy and Planning (2008)

The GOT is keenly aware of the HRH deficit for HMIS and has already taken steps to address the situation. For example new cadres of HMIS staff have been created; in-service training at all levels is strengthening the capacity to correctly collect and analyze data. Due to the limited scope of this assessment, no in-depth review of the level of effort required of clinical staff to fulfill their HMIS-related functions was conducted. This is an area that is worthy of further study to determine the impact of these clerical duties on clinical staff time and on quality of care.

8.2.2 FINANCIAL RESOURCES

The project to strengthen the HMIS is estimated to cost approximately Tsh 62 billion, or US$ 41 million (Tsh 1,500 = US$ 1) (see Figure 22).

FIGURE 22. PROJECTED FINANCIAL REQUIREMENTS FOR HMIS PROJECT

	Budget for the period						Total
From	7/1/2009	7/1/2010	7/1/2011	7/1/2012	7/1/2013	7/1/2014	
To	6/30/2010	6/30/2011	6/30/2012	6/30/2013	6/30/2014	6/30/2015	
Sources	**Year 0**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	
Project Account	-	4,680,422,500	6,688,860,000	6,826,695,000	6,316,912,500	5,035,585,000	29,548,475,000
UDSM/UiO	872,340,500	1,371,342,000	1,314,395,000	1,089,429,500	945,719,000	638,094,000	6,231,320,000
CHAI	167,218,000	420,299,000	376,319,000	308,256,500	246,915,500	88,155,500	1,607,163,500
IHI SAVVY	-	639,895,000	639,895,000	639,895,000	639,895,000	639,895,000	3,199,475,000
IHI SENTINEL	-	952,425,000	678,375,000	-	-	-	1,630,800,000
CDC Coag (Direct Support)	64,653,000	346,140,000	29,350,000	-	-	-	440,143,000
JICA	30,000,000	163,125,000	68,925,000	68,925,000	-	-	330,975,000
MOHSW	-	209,700,000	279,600,000	427,450,000	726,512,500	777,760,250	2,421,022,750
Regional Office	-	33,000,000	340,000,000	488,520,000	673,610,000	818,320,000	2,353,450,000
District Council(s)	-	110,550,000	457,040,000	1,630,915,000	2,013,620,000	2,933,485,000	7,145,610,000
MOHSW Basket	-	-	-	-	-	-	-
P4H	489,872,750	846,224,125	980,787,500	954,500,000	690,525,000	674,370,250	4,636,279,625
CDC Tech Support Partner (TBD)	-	500,000,000	500,000,000	500,000,000	387,500,000	350,000,000	2,237,500,000
Total	**1,624,084,250**	**10,273,122,625**	**12,353,546,500**	**12,934,586,000**	**12,641,209,500**	**11,955,665,000**	**61,782,213,875**

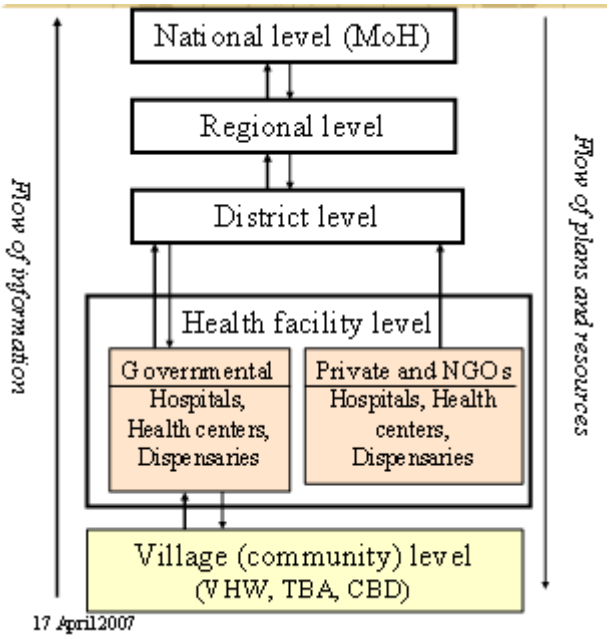
Source: MOHSW (2008c)

8.3 HIS STRUCTURE

As detailed in Figure 23, the comprehensive organization of Tanzania's HIS includes facility-based health statistics, population-based health statistics and research, management statistics, information and communication technology (ICT), and support management.

The HMIS has a well-established structure that should allow the efficient flow of data from service delivery sites through the districts and regions to the national level. Supervisory structures also are defined so that the CHMT supervises the district hospitals as well as health centers and, through a cascade system, the health center supervises the dispensaries.

FIGURE 23. HEALTH INFORMATION SYSTEM IN TANZANIA



Source: Igira (2007)

8.4 DATA COLLECTION, REPORTING, AND USE

The HMIS collects all basic health and facility administration data (staffing, equipment, physical structures, maintenance, etc.) from health facilities through the 12 books of the MTUHA, and reports up quarterly (or more frequently for disease surveillance purposes) through the district. Data are compiled at the district level into the District Processing File for aggregation of all district data. The district prepares quarterly and annual reports for submission to the regional and national levels. This system exists in parallel to the different reporting arrangements developed by vertical programs that have their own specific indicators and reporting timetables that must be met. This issue is discussed later in this section.

Data analysis at the facility level is done manually except where computers are available in which case spreadsheets (Microsoft Excel) may be used. Demand for data for decision making at the facilities varies depending on the initiative of the management, especially the medical or clinical officer in charge.

One key activity for which data appear to be used is in preparation of the CCHP. Councils are required to prepare CCHPs that take into account the burden of disease and other health information from the health facilities under them and this therefore forces them to make use of such data. There is no feedback, however, to the facilities that provided the data and hence the absence of motivation for the production of accurate and complete data at facility level.

The following reports are currently available from the different levels of the health system (Rubona 2007):

National level: The key information product of the MOHSW is the Annual Statistical Abstract. The most recent one available as of July 31, 2010, is for calendar year 2008.

Regional level: At the regional level, no data entry is done but data are transmitted electronically to the national level as received from districts.

District level: The districts compile data and send them electronically to the Region in three reports:

- *District Staff List.* This report is prepared at the district level and sent to the region at the beginning of each year
- *District Quarterly Report.* This report is prepared at the district level and sent to the region.
- *District Annual Report.* This annual report is prepared at the district level and extracts information from the Facility Annual Report (see below).

Facility level: Health facilities prepare reports monthly, quarterly, or annually as required by "Book 10" of the MTUHA. These reports are:

- *Staff Listing* (reported by all health facilities). This report is completed and submitted at the beginning of the year. All staff employed at the health facility are listed on this form, with specific information about each staff member. The form is completed in duplicate; one copy is kept at the health facility, and one is sent to the DMO office.
- *Equipment Inventory* (reported by all health facilities). Completed and submitted at the beginning of the year, this form lists all equipment. In large health centers and hospitals, separate pages can be used for each department or section. The form is completed in duplicate; one copy is kept at health facility, and one is sent to the DMO's office. (If a department wishes to keep a copy, the form is completed in triplicate).
- *Physical Structure Inventory* (reported by local government health facilities and all government hospitals). This report, completed at the end of the year and submitted immediately, lists all rooms in all buildings. It is completed in duplicate; one copy is kept at the health facility, and one is sent to the DMO's office.
- *Health Facility Quarterly Report* (reported by all health facilities). This report is filled at the end of each quarter (at the end of March, June, September, and December). All of the information is described in the Guidelines Manual, and recorded in the health facility data book. The form is completed in duplicate; one copy is kept at the health facility, and one copy is sent to the DMO's office.
- *Health Facility Annual Report* (reported by all health facilities). This report is filled out at the end of the year and submitted immediately. Based on data collected throughout the year, the form is completed in triplicate: one copy is kept at health the facility, one copy is sent to the DMO's office, and one copy is sent to regional medical office.
- *Renovation/Maintenance Report* (reported by local government health facilities and all government hospitals).This report records equipment repair or replacement and renovation and maintenance work done at health facilities during the year. The form, which is submitted at the end of the year, is completed in duplicate; one copy is kept at the health facility, and one copy is sent to the DMO's office.
- *Equipment Breakdown Report* (reported by local government health facilities). This report is filled when and if there is a breakdown of any essential equipment at the health facility. Each breakdown is reported only once. The form is completed in duplicate; one copy is kept at the health facility, and

one copy is sent to the DMO's office

- *Notifiable Disease Report* (reported by all health facilities). This report is required immediately when a notifiable disease is suspected by the health facility. It is sent to DMO's office as soon as possible.

Parallel donor-supported systems: Donor preferences for information on their projects in different formats and timeframes have led to the establishment of parallel reporting systems for their "vertical" health programs in the health sector. This has complicated the national HMIS in Tanzania and impoverished it as these parallel systems compete for the limited human resources available. The current efforts to reform the HMIS will hopefully eliminate the need for such parallel structures if the national system functions as it should and wins the trust of development partners as a reliable tool for producing all the data they need for program monitoring and reporting to their home constituents.

8.5 STRENGTHS

The government clearly recognizes the value of sound health information and is backing this up with appropriate financial and staff investment in strengthening the system to make it responsive to the monitoring and evaluation needs of all stakeholders and health management for the country. There is a high level of coordination in this effort as the key ministries of health and local government collaborate with multiple development partners under the SWAp structure established in the MOHSW. A five-year work plan 2010–2015 has been developed to guide implementation of this project.

Focus areas of the new project include:

- Management and revision of indicators and monitoring and evaluation tools
- HMIS national roll-out and consolidation of data
- Data use and systems strengthening
- Surveillance (Demographic Sentinel Sites), surveys, and research
- HMIS software development, systems integration, and ICT
- In-service and pre-service training
- Project management and administration
- HMIS test region

Working groups have been formed to oversee various aspects of the project, under the overall direction of the project manager.

8.6 KEY FINDINGS AND RECOMMENDATIONS

Findings

The key weaknesses in the current HMIS have been well documented and it is not the intention of this assessment to repeat them. Some of the key weaknesses in the current HMIS include:

- There is currently no national policy on data flow and information use, making it easy for parallel subsystems to be established. However the MOHSW is already in the process of developing such a policy and the corresponding national strategy for HIS.
- There is lack of coordination and sharing of data among systems.
- There is fragmentation in the collection and reporting of health information caused by strong vertical programs running their own reporting systems.
- There is need for the creation of an integrated framework, such as a data warehouse/repository, whereby data across data sources and types can be analyzed and correlated.
- There is not as much consistency as there could be between the data collected and the information required to support decision-making processes.
- There is could be more use of the information at the local level. Data and information pass through various levels of the administration, but are passed on rather than actively used for local planning. The higher levels of the hierarchy do not provide feedback to the lower levels.
- There is no mechanism to ensure that communities have access to reports submitted by service providers in their areas.
- Motivation for staff involved to ensure the quality and timeliness of data collection and reporting is lacking and there is no evidence that they understand the value of health information data. Clinical staff play a key role in the collection of data but the impact of data collection on their time has not been studied to determine how this affects quality of care.
- Staff capacity needs to be strengthened, both in terms of number of staff and skills for HMIS at all levels.
- Data in the commercial private sector is often not collected (and possibly not requested).

Recommendations

The following recommendations only serve to emphasize or in some cases fill any perceived gaps in the strengthening of the HMIS.

- Provide data and charts to councils on a quarterly basis, so they see how their district compares with others. This will spur competition and illustrate how the information they provide is crucial and an important part of the health system. (Each stakeholder needs to visualize how they contribute to the health of Tanzania.). Such data would be more readily useable for decision-making than the Annual Health Statistical Figures and Chart which is already available to them.
- Develop incentives for timely collection/compilation of data. The Pay for Performance scheme currently being piloted in Pwani may provide a mechanism to encourage better performance in this area.
- Use supervision to strengthen the use of data by CHMTs. For example, require them to show evidence of data use in facilities.
- Conduct on-the-job training in supervision, with emphasis on how data collection and feedback should be conducted by CHMT members as already recognized in the M&E Strengthening Project.

Make CHMT responsible for ensuring that health facilities are aware of the importance of accurate data in contributing to the health system. District, regional, and national feedback of the impact of accurate data need to be conveyed to each facility.

- Make full use of the revised HMIS data collection tools (plus the DHIS reporting features) to ensure regular monitoring of finances and service delivery.

9. CONCLUSIONS AND RECOMMENDATIONS

9.1 CONCLUSIONS

This assessment of the Tanzanian health system reveals a mixed performance picture over the past decade. On the one hand, there have been significant improvements: total expenditures for health have increased significantly (including the government's contribution), with a larger share allocated to the district level; infant and under-five mortality has declined; the proportion of births in health facilities has risen; and HIV prevalence has declined. On the other hand, serious challenges continue to undermine progress, including:

- Difficulties in the implementation of the decentralization by devolution policy of government functions and finances
- A continuing HIV/AIDS epidemic that takes a heavy toll on the health system in the form of human and financial resources to manage the disease
- Increasingly scarce HRH worsened by poor HR management
- Inadequate financial resources whose allocation and use remains a challenge

These changes have affected all components of the health system, as detailed in each of the system component modules. More importantly, these changes have had cross-cutting impact on the entire health system, beyond the effects in each component. The assessment team grouped the key issues from all the health system components under five cross-cutting constraints that follow in the sections below. The recommendations are arranged under the different levels of the health system where action should be taken.

Accountability

The lack of accountability throughout all levels of the health system is a problem affecting all functions. There is no clear mechanism to address and act upon poor performance and enforce responsibility. The inability to enforce responsibilities affects how health facility staff treat patients, whether HMIS data are compiled and submitted as directed, whether the DMO takes action to alleviate medicine shortages throughout the district, and whether SWAp TWGs implement their planned activities. There are neither incentives for staff who make extra efforts to resolve problems, nor punishments for staff who do not perform their basic responsibilities.

The assessment team identified the governance structures at council level as insufficient for holding DMOs and CHMTs accountable for health sector performance. In theory, DMOs and CHMTs are given the bulk of the responsibility for planning and supervising all aspects of health services, including faith-based and private facilities and medicines outlets. While DMOs formally report through the CHSBs to the DED, in practice, CHSBs are not always functioning and may not have the technical capacity to

oversee the DMO. The boards Health Facility Governing Committees that are supposed to be in place at the ward level to govern facilities are even weaker, and there is no culture of community or citizen action to resolve complaints.

In order to create a culture of accountability, we propose a set of interventions aimed at establishing a set of measurable indicators against which health system staff can be assessed. Indicators would be designed for council-, regional-, and central-level staff and teams, against which performance could be assessed and performance incentives provided.

Staff Roles, Responsibilities, and Capacity

As mentioned, limited HR capacity is a critical issue in Tanzania. While this problem is often analyzed in terms of the numbers of various cadres of staff, there are other aspects of staff management that impact the productivity of the existing staff. A review of staff incentives to find the most appropriate means to motivate them is an essential element that requires an innovative look and bold action. Staff roles and responsibilities are not always clearly communicated, and sometimes new responsibilities are assigned with little budget or other support. A donor project may train staff in facilities to deliver a new service or implement a new initiative, with its corresponding responsibilities that are not necessarily communicated to managers. It is not clear who is keeping track of all the responsibilities assigned to various staff or to the CHMT. Also often lacking is attention to supporting staff as they take on new responsibilities, such as facility medicine management or ART delivery. In addition to one-time classroom training, intensive support is required in the early stages of performing new activities, to ensure that any problems or misunderstandings are resolved early quickly.

In order to make best use of the available HR capacity, we focus on a set of recommendations to improve recruitment of health staff, speed up the hiring process, and promote staff retention, especially in rural areas. Concurrently with efforts to increase the numbers of staff, it is also important to review and rationalize staff responsibilities to ensure that they are manageable and reasonable, starting with the responsibilities of the CHMT members. Creating and communicating very clear and manageable job tasks will improve staff motivation and productivity. Lastly, all partners must commit to reviewing its training procedures to ensure that offsite training is fully complemented by *budgeted* on-the-job support mechanisms to ensure training skills are appropriately applied.

Existence of vertical health programs and projects with weak coordination and implementation

Fragmentation and lack of coordination in many different areas of the health system diminishes its performance. Devolution of service delivery to Councils increases the complexity of management, requiring more attention to coordination between Ministries at national and sub-national levels, as well as communication from national to sub-national levels within each ministry. This assessment found many examples of weak coordination affecting the health system, including staff recruitment and retention policies requiring improvement in coordination with LGA and POPSM, weak collaboration with the private sector, and poor communication from central to lower levels. There are multiple sources of funding including targeted and general funding, various working groups and committees setting health policy and delegating tasks to regions and districts, and competing health programs with different management systems.

It can be difficult to bridge the gap between policy-setting at the central level, and implementation at periphery levels, but the division of responsibilities among different institutions makes it particularly challenging. While the central level may expend a significant effort to develop good policies and guidelines, if there is not adequate support to disseminate those guidelines and ensure implementation,

all efforts are lost. Inadequate coordination between MOHSW, PMO-RALG, and PO-PSM, and between the central, RHMT, and CMHT levels leads to confusion and poor implementation. One of the most pressing problems within the health system, HR constraints, cannot be addressed by the MOHSW alone – it must work more closely with PMO-RALG and PO-PSM on HR recruitment, deployment, and financing, if the HR gap is to be addressed.

The assessment team developed recommendations that focus on reaching out to PMO-RALG and PO-PSM to include them in central-level MOHSW decisions, improving communication between central, regional, and district levels, and improving coordination among health development partners. New policies and activities can only be effectively implemented if there is sufficient commitment from all stakeholders (development partners, PMO-RALG, etc.), including stakeholders committing adequate funds to support communication, follow-up, and monitoring.

Prioritization of Interventions and Use of Resources

Closely related to the issues around weak coordination are issues related to prioritization of interventions and making efficient use of limited resources. Lack of clear priority setting at all levels limits the resources available to effectively implement critical activities – health staff go about pursuing many various activities, but implementing few well. The government of Tanzania adopts many initiatives and strategies, some of which are significantly underfunded – a few examples from HSSP III include the Primary Health Care Service Development *Programme (Mpango wa Maendeleo ya Afya ya Msingi*, MMAM) (estimated to cost over US $8.0 billion,) various health insurance schemes including the National Health Insurance Fund, Tiba Kwa kadi (TIKA) and the CHF, and Accredited Drug Dispensing Outlets (ADDOs). After the initial introduction of each initiative (which often involve trainings and meetings with associated per diems,) ongoing support and supervision are less than adequately funded, and staff attention turns to new activities.

The inconsistent timing of funding disbursements also affects the ability of staff to manage their work – CHMTs often face situations where there are no funds to carry out planned activities for two months of a quarter, then multiple sources of funding released in the last month, requiring that staff conduct all supervision and medicine procurement for the quarter within two weeks. This type of situation limits the staff time available to carry out any of those activities well.

There is weak management capacity, and this little authority to prioritize and approve new activities, taking into consideration the available staff resources and their current commitments. While the SWAp TWGs each have their own responsibilities, the SWAp technical committee does not play a strong role in overseeing the multitude of activities, prioritizing activities to take place at the district level, and providing an overall check on implementation feasibility.

Management tools and management skills must be improved at all levels. Creating mechanisms to compile the information on planned activities across the various initiatives is a first step to allow managers to begin to plan sector-wide. Stronger leadership at the central level to prioritize activities will take the burden off CHMTs who face many competing requests and responsibilities.

HIV/AIDS and other Vertical Programs

Lastly, HIV/AIDS continues to be a driving force in the health sector – its impact on staff management, funding, and service delivery is felt at all levels. While attracting substantial additional funding for health, HIV/AIDS programs also compete for limited health staff at the district level and above. Weak management and leadership at all levels leads to competition both among HIV/AIDS programs and with

other vertical programs and services. HIV/AIDS and other vertical programs tend to operate independently, further exacerbating fragmentation and inefficient use of resources.

The assessment team recommends ways to strengthen coordination at the central level, and enhance collaboration among HIV/AIDS and other vertical programs. More coordinated joint regional- and district-level planning involving all the vertical programs is also recommended.

9.2 KEY ISSUES AND RECOMMENDATIONS

The core cross-cutting issues and recommendations of the assessment team are summarized in Table 18.

TABLE 18. HSA ISSUES AND RECOMMENDATIONS

ISSUES	RECOMMENDATIONS
ACCOUNTABILITY	
A. There could be a better mechanism to address and act upon poor performance and enforce responsibility within the health system. B. In theory, there are clear channels of reporting issues/problems up the health system hierarchy; in practice, they are unknown to or unused by many due to lack of communication or fear of reprisal C. CHMTs have the bulk of the responsibility for planning, supervising, and ensuring service delivery, but in practice they are not held accountable to meet work plan targets. D. The prevalence of staff in "acting" positions contributes to lack of accountability and follow-through. E. Patients often do not fully understand their rights, or how/where to address their complaints and questions.	**Central** • A1. SWAp technical committee should set performance targets for central-level TWG focal persons. • A2. Central-level TWG focal persons should be given appropriate incentives and be held accountable to meet targets. • A3. District Health Services Coordinator in collaboration with the RAS should set performance targets for RHMTs. • A4. Open Performance Appraisal System (OPRAS) should be simplified and appropriately implemented. • D1. A system at the MOHSW, PMO-RALG, and PO-PSM levels needs to be put in place to monitor how long a person has been in an acting position. **Regional** • A5. RHMT should be held accountable to specific performance targets set by the RAS and MOHSW. • A6. Feedback to the council and regions should be part of these targets. • A7. An appropriate reward could be given to the RHMTs that have the best-performing districts. • C1. RHMTs should develop tools to provide better supportive supervision and evaluation of CHMTs activities. **Council** • B1. Incentives should be created, tied to meeting Comprehensive Council Health Plan (CCHP) performance-related targets. • C2. CHSB functionality should be re-examined, including the ability to hold CHMT accountable. • C3. CHSBs are in most cases not functioning appropriately. The way they select members should be revised. Terms and conditions of membership should ensure members are actively fulfilling their roles. **Community** • E1. Community groups should be provided with information on basic rights and complaint channels (may include print, radio, and other communication channels). **Cross cutting**:

ISSUES	RECOMMENDATIONS
	• E2. The information and communication technology (ICT) unit should be involved in creating appropriate mechanisms, e.g. hotlines, web-based tools that allow those at all levels to bring up issues directly to responsible officers.
ROLES, RESPONSIBILITIES, AND CAPACITY	
A. Appropriate incentives are necessary to motivate staff to perform better. B. HR management at all levels is could be improved to better fulfill the role of ensuring that facilities are sufficiently staffed. C. The responsibilities placed on CHMTs are too broad. CHMT members do not delegate responsibilities and signatory authority to ensure completion of assigned duties. D. The approach to capacity building using offsite meetings and seminars rather than coaching and on-the-job training is ineffective. E. Qualifications of many existing CHMT members do not meet the job description requirements. F. There is low enrollment of students from disadvantaged regions/districts in pre-service training institutions. G. Filling approved and funded HR posts due to over-complexity and serious delays in decision making and procedures is a challenge. H. Data are often not available to RHMT, CHMT, and health facility managers in a user-focused format for planning and decision making.	**Central** • A1; B1. Explore alternative incentive mechanisms to raise staff performance. • B2; G1. Streamline HR procedures, and develop an orientation process for those posted, particularly to remote facilities. Simplify the recruitment process to reduce the current number of days it takes to fill a vacancy. • F1.Design policy/guidelines to enhance communication between secondary schools, districts, health institutes, health facilities, and relevant ministries. Encourage enrollment of students from nearby rural areas in health training institutions and deploy them in their home areas. **Regional** • D1. Each region should have a team of mentors that can help build the capacities of the CHMT and its members. • E1. Zonal resource centers should be fully resourced to provide management training to CHMTs and to follow up with on-the-job assessment of application of skills. **Council** • A2. Explore alternative incentive mechanisms to raise staff performance • D2. Develop health management training that includes on-the-job mentoring and coaching, to assist CHMT members to more efficiently conduct responsibilities. • A3. Develop incentives for CHMT staff to delegate responsibilities to others. • F2. Create links between the health sector and the education sector, particularly in areas that are disadvantaged. DMOs and other CHMT members should actively pursue secondary school students and advertise the possible positions within the health sector, as well as provide information on the training institutions in the district. • F3. Put in place a mechanism so that LGAs can participate in selection, financing of candidates for pre-service training, and bonding them to serve in the district/council. • C1. Rationalize and reorganize CHMT responsibilities by reviewing all of the functions (supervision, monitoring, reporting) assigned by various programs and departments to define a core set of efficient management functions that can be implemented to meet all the priority needs. • H1. Involve the ICT unit in developing data management training, which includes data cleaning and processing in a simple and user-focused format for planning and decision making. The use of Demographic Surveillance System information/outputs in planning and decision making should be emphasized.
EXISTENCE OF VERTICAL HEALTH PROGRAMS AND PROJECTS WITH WEAK COORDINATION AND IMPLEMENTATION	

ISSUES	RECOMMENDATIONS
A. Multiple initiatives in health sector could be better coordinated and can lead to confusion, duplication, and wasted resources. B. Multiple funding and health insurance schemes could be better coordinated at all levels. C. Although policies are well writen, implementation is a challenge, because policies are not disseminated and communicated as often as necessary. D. Coordination between and within MOHSW, PMO-RALG, and PO-PSM could be improved.	**Central** • A1. PMO-RALG and PO-PSM should be represented within central-level working groups more frequently to ensure common understanding and support of all policies, and to agree on how new policies are to be disseminated and implemented. • A2. Coordination should be improved between the various TWGs at central level, to improve implementation of multiple programs and initiatives that may compete for limited staff resources at district and facility level. • C1. Central-level policies and guidelines should be simplified so that they are easy to understand and implement, with appropriate budget to support dissemination and sensitization at all levels. • D1. Joint quarterly meetings of the MOHSW, PMO-RALG, PO-PSM, and MOFEA should be held to deal with critical cross-cutting issues such as HRH recruitment and deployment and financing. • B1. A risk-equalization mechanism should be introduced between the various insurance schemes (NHIF, CHF/TIKA, and SHIB). **Regional** • C2. RHMTs need a budget for disseminating policies. • A3. RHMTs should conduct a donor and NGO mapping activity to see what is being done in their region. Best practices should be shared throughout country.
PRIORITIZATION OF INTERVENTIONS AND EFFICIENT USE OF RESOURCES (FUNDS, HUMAN, COMMODITIES)	
A. The flow of funds from the national level, mobilization of revenue at the local level, and capacity to plan and spend could be improved. B. Capacity to prioritize interventions could be improved so that resources are used more effectively. C. There could be more flexibility to manage resources according to council needs, including uncertain timing of funds, staffing of vacant positions, pharmaceuticals, etc. D. Quality of health services could be improved with more efficient management of HR, supplies and equipment (including transport). E. High absenteeism due to financial incentives (per diem) given during off-site trainings, seminars, workshops, and other meetings. F. Low absorption capacity of available fund due to long and time-consuming procedures in the councils.	**Central** • C1. Streamline and strengthen the recruitment process because failure to fill approved and funded HR posts is due to over-complexity and serious delays in decision making and procedures. • B1; D1 Health management training curriculum should be developed and incorporated into pre-service and in-service training. • A1; C2. Within their ceilings and with proper guidance, each council should be allowed more flexibility to manage their funding (e.g., saving it for later) so that they can accommodate peak seasons (e.g., of malaria) or work around rainy seasons, which prohibit them from constructing new facilities. • E1. SWAp technical committee to create mechanism for all programs and initiatives to provide a report of upcoming trainings (including dates, districts, and individuals) that is compiled and sent to councils in advance to facilitate staff planning. Set and enforce a limit on the number of person days of offsite training per council. **Council** • B2. Provide better guidance to CHMTs to translate health data into health plans, with appropriate prioritization of activities based on health needs. • D2. Create incentives to encourage better performance in supervision of health facilities. • C3; F1. Strengthen financial management capacity at facility and council levels for all sources of health funding in the CCHP, focusing on on-the-job mentoring and coaching rather than off-site training. Streamline fund acquisition procedures to reduce lead time between requesting and actual payment of the requested funds.

ISSUES	RECOMMENDATIONS
HIV/AIDS AND OTHER VERTICAL PROGRAMS	
A. HIV/AIDS has a negative impact on HRH in the form of workload, staff morale, and infections/death. B. HIV/AIDS and other vertical programs compete for limited service delivery staff and do not collaborate among themselves nor with other vertical programs and health services.	**Central** • B1. Design ways and allocate funds to tackle HR issues in donor activities on HIV/AIDS. • A1. Put in place mechanisms to enhance workplace HIV/AIDS programs for HRH in health facilities. • B2. Create a new position that is a liaison between the National AIDS Control Programme and other vertical programs to ensure more effective collaboration, and to identify functions that could be integrated for better performance and higher efficiency. **Regional** • B3. RMO should create a mechanism for quarterly joint planning by all of the vertical program coordinators (TB, malaria, AIDS, maternal and child health, etc.). **Council** • B4. Create a mechanism at Council level for joint planning by all vertical programs.

ANNEX A: REFERENCES

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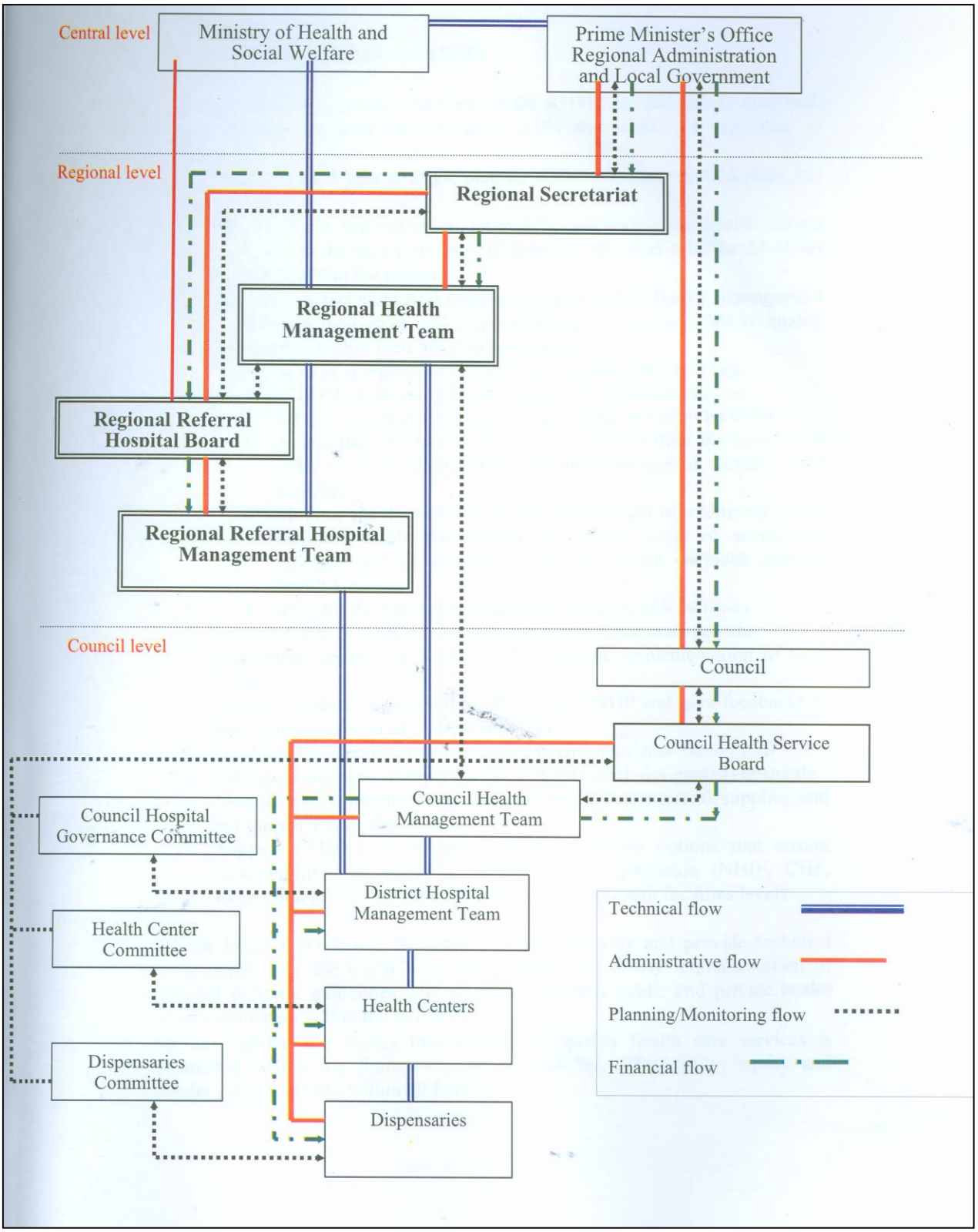
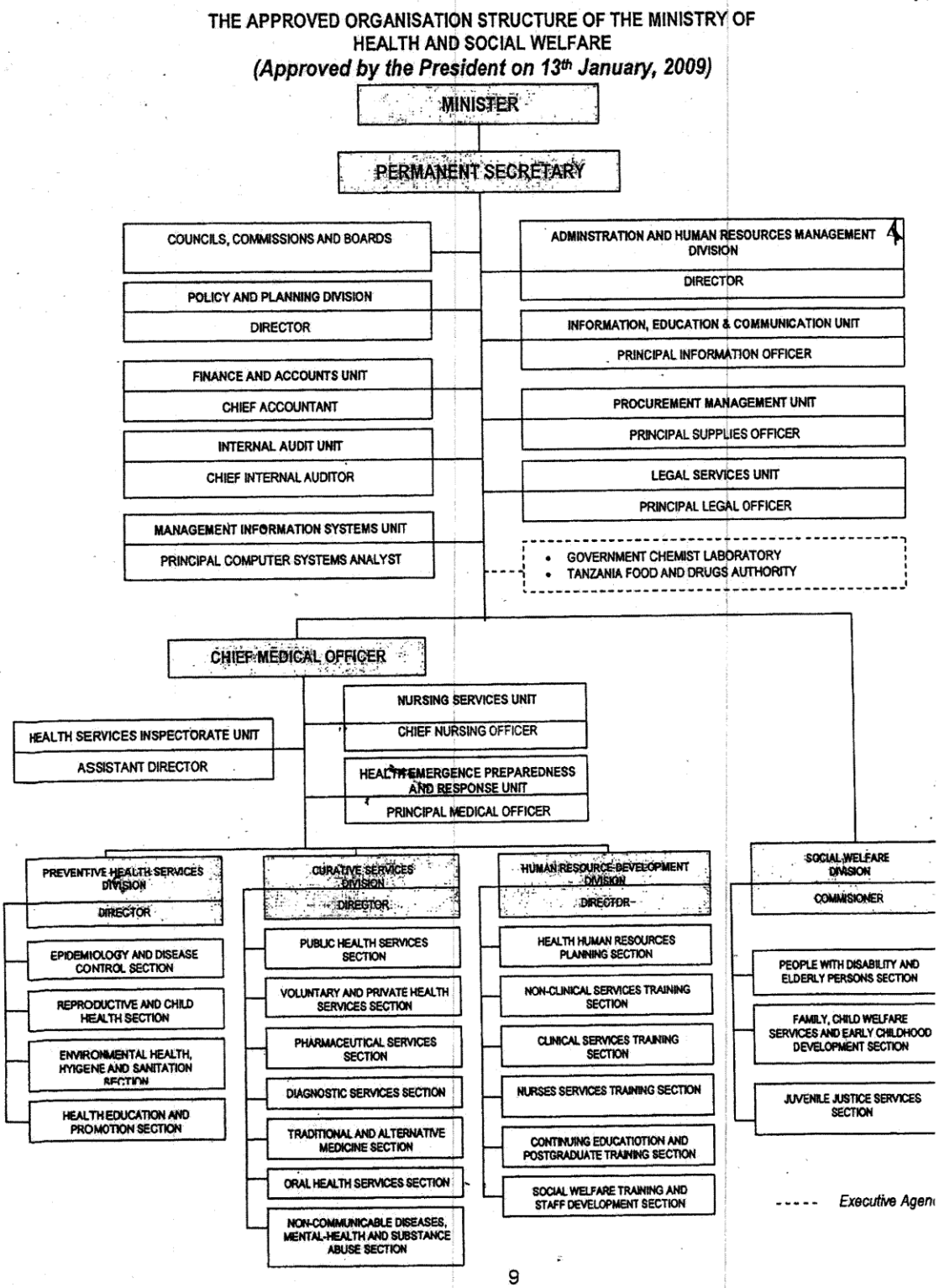
ANNEX C: WORKING RELATIONSHIP AT EACH LEVEL



ANNEX D: ORGANIZATIONAL CHART OF THE MINISTRY OF HEALTH AND SOCIAL WELFARE



ANNEX E: SUMMARY OF HEALTH SYSTEM ISSUES AND INTER-RELATIONSHIPS

Summary of health systems issues and inter-relationships, color-coded by cross-cutting constraint

Source of issue / Building Block	Origin of key issues affecting the Building Blocks					
	Service Delivery	**Leadership and Management**	**Financing**	**Human Resources**	**Pharmaceuticals**	**HIS**
Service Delivery	• Ineffective supervision, and lack of supportive clinical supervision • Poor operations management including: staff, patient flow, stocks of medications • Referral system problems such as transport, extensive paperwork • Few mechanisms for collaboration with private sector	• Policies well crafted, but not understood at district, community, CHMT levels • Communication breakdown between central and other levels • Community voice not adequately considered in policy formulation and implementation	• Cost sharing exemptions may cause patients to overuse the system • Severe financing delays or no financing disrupts staff, medicines, equipment • Integration of vertical programs and PHC is a challenge due to large disparities in funding	• Not enough qualified staff • MMAM implementation will be challenged by HR constraints • More management skills at DMO level needed for supportive supervision • Vertical programs compete for quality staff	• Not enough medicines/equipment • Providers (private sector) with no qualification to dispense medicines	• Service providers have no time or qualification to collect data • Service providers don't value data because they hardly ever use it. • Providers within public and private sectors do not get feedback from the central level on data collected
Leadership and Management	• Guidelines are not known, understood, or followed • Lack of mechanisms to receive and respond to patient and DMO concerns regarding health care quality • RHMT and CHMT members often are not held accountable for their supportive supervision role	• Many problems require action from multiple ministries, and no mechanisms exist to ensure collaboration • Lack of clarity on who is responsible for what • Lack of feedback to lower levels erodes their confidence in the system • Households/ communities voice is not adequately heard	• Challenges in accountability with MOFEA responsible for funding while MOHSW and PMO-RALG have responsibility for how to use those funds	• Regional teams have limited financial, human, and data resources, constraining their ability to support councils • Too many staff in "acting" positions do not fully understand their roles	• MSD is not accountable to districts. Districts do not have any bargaining power since the money for supplies is transferred directly to MSD from the central level • DMOs are not accountable for medicine availability	• Data not available to managers to improvement management or to hold responsible people accountable for performance
Financing	• Poor quality of services may be responsible for low CHF membership • Inefficiency in service delivery wastes resources • Inability to use revenue from user fees due to cumbersome processes or lack of understanding of procedure to follow	• Not clear who should be held accountable for the poor flow of funds from central to lower levels	• Burden of out-of-pocket payments • Fragmented health insurance • High donor dependence • Low government spending for health	• Low planning and budgeting skills • Budgets not guided by sound evidence re priorities due to failure to use, or lack of knowledge of, guidelines	• Pharmaceuticals delayed and underfunded	• Data for decision making not readily available to guide planning and monitor efficiency of service delivery

Source of issue / Building Block	Origin of key issues affecting the Building Blocks					
	Service Delivery	**Leadership and Management**	**Financing**	**Human Resources**	**Pharmaceuticals**	**HIS**
Human Resources	• Health management skills needed • Staffing norms are based on facility type, not patient volume, resulting in very uneven workloads • HRH production versus MMAM requirements is inadequate	• Poor recruitment process vs. retention/ motivation in LGA, PO-PSM, MOHSW, MOFEA • Lack of enforcement of contracts • Some CHMT members unqualified for the positions they hold hence poor supportive supervision and enforcement of regulations	• Insufficient funding for HR needs • Unlike block grants, funding is not based on needs, but based on filled positions (in more desirable areas) • Staff remuneration not tied to performance • Staff attracted to off-site meetings and seminars with per diems, resulting in many absent managers	• HR management weak at all levels. • Failure to fill approved and funded positions due to complex process, as well as the shortage of candidates with required skills, e.g. Specialists. • Capacity building using off-site trainings ineffective • Few students from poor areas in pre-service training, affecting eventual retention in those areas	• Not enough pharmacists or supervisors specializing in pharmaceuticals • Unqualified personnel dispensing medications due to HR shortages	• Unreliable HRH data from the private sector (for-profit)
Pharmaceuticals	• Frequent stockouts at facilities hence patients go to DLDB and pay more • Little engagement of private medicine sellers even though they are often the first source for health care	• DMO not accountable for medicines availability • Health centers and dispensaries unable to make medicine purchases outside of MSD	• Basket funding irregular and insufficient hence MSD cannot procure sufficient quantities on timely basis • All health centers and dispensaries get the same allocation of medications irrespective of workload	• Limited number of pharmacists, and unqualified staff dispense medications in hospitals and health centers • More support and supervision is needed for the ILS to function effectively • Vertical programs have more staff to oversee medicines availability	• Facilities have no buffer stock	• No routine information on stockouts • No routine information on MSD performance
HIS	• Data is not used by health care providers, and only seen as an addition to their heavy workload	• Value of health information data not understood, and data is not connected to decision-making. • No feedback on data from central to lower levels		• Lack of staff with skills in data management • Inadequate numbers of clerks to collect and report data from health facilities • No scheme of service available for HIS clerks		• Poor record-keeping • Parallel systems of data collection, with vertical programs operating their own systems • No coordination or integration of data collection tools • No integrated data warehouse

Note: MMAM= *Mpango wa Maendeleo ya Afya ya Msingi* (Primary Health Care Service Development Programme), DMO=district medical officer, MOFEA=Ministry of Finance and Economic Affairs, PMO-RALG-Prime Minister's Office–Regional Administration and Local Government, CHF=Community Health Fund, MSD=Medical Stores Department, LGA=Local Government Authority, PO-PSM=President's Office–Public Service Management, DLDB= *Duka la Dawa Baridi* (Private Drug Sellers)

COLOR SCHEME: Accountability (pink); Staff roles, responsibilities and capacity (blue); Existence of vertical health programs and projects with weak coordination and implementation (purple); Prioritization of interventions and use of resources (green); HIV/AIDS and other vertical programs (red)