CAPACITY BUILDING PROGRAMS FOR DHMTs: A CASE STUDY OF SIMANJIR0 DISTRICT, TANZANIA

Suresh Babu Kokku

India

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Capacity building programs for DHMTs: A Case study of Simanjiro District, Tanzania

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Master of Public Health

By

Suresh Babu Kokku

India

Declaration:

Where other people's work has been used (either from a printed source, internet or any other source) this has been carefully acknowledged and referenced in accordance with departmental requirements.

The thesis Capacity Building Programs for DHMTs: A case study of Simanjiro District, Tanzania is my own work.

Signature:……

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Abstract:

DHMT capacity is an important component in health service delivery in decentralized context. Little is documented about how to implement and sustain the capacity building interventions at the DHMT level in a resource constrained settings. This paper is a retrospective study of the Simanjiro Mother Child health capacity building project (2001-2007) in Tanzania. The objective of this paper is to analyze the Simanjiro DHMT capacity and project inputs by using the Potter and Brough capacity pyramid model.

The goals of the health system can better reached by developing adequate capacities at DHMT and health facility levels. This study found that the capacity building programs needs to be more comprehensive in addressing all the areas of Potter and Brough model. The activities implemented and approaches used by Skillshare International were successful and contributed in improving the vaccination coverage and Antenatal care coverage. Apart from classroom trainings the project used approaches like mentoring, coaching and on job training to build the DHMT capacity.

The school health program had a positive effect on children by reducing the dropout rates. HMIS, Indent system and leadership development related activities helped DHMT to function better. However institutionalization of the capacity related indicators would have been more useful in measuring the project impact.

Potter and Brough model is useful in analyzing the DHMT existing capacity systematically. The better diagnosis of gaps will help to design better capacity building programs which will eventually lead to effective utilization of limited resources.

Based on the country experiences and the case study this paper concludes that a systemic approach is needed for building and sustaining the capacity of DHMT.A list of recommendations were made in the end and further research is needed on capacity development at DHMT level in resource limited settings.

List of Abbreviations

AMO	Assistant Medical Officer
AIDS	Aquired Immuno Deficiency Syndrome
BMAF	Benjamin Mkapa AIDS Foundation
CCHP	Council Comprehensive Health Plan
CHF	Community Health Fund
CO	Clinical Officer
DACC	District AIDS Control Coordinator
DHMT	District health Management Team
DHSB	District Health Service Board
DMO	District Medical Officer
DTLC	District TB & Leprocy control coordinator
ELCT	Evangelical Luthern Church of Tanzania
EmOC	Emergency Obstetric Care
FGM	Female Genital Mutilation
GNP	Gross National Product
HIV	Human Immunodeficiency Virus
IMF	International Monitory Fund
IMR	Infant Mortality Rate
MCH	Mother and Child Health
MMR	Maternal Mortality Ratio
MoH	Ministry of Health
MoPE&E	Ministry of Planning, Economy and Empowerment
NGO	Non Governmental Organization
NHP	National Health Policy
OECD	Organization for Economic Cooperation and Development
PHNB	Public Health Nurse B
PMO	Prime Ministers Office
SMMU	Simanjiro Masai Mobile Unit
TBA	Traditional Birth Attendants
TDHS	Tanzania Demographic and Health Survey
TEHIP	Tanzania essential Health Interventions Project
THIS	Tanzania HIV/AIDS Indicator Survey
TSPA	Tanzania Service Provision Assessment survey
UNDP	United Nations Development Program
UNICEF	United Nations Children Education Fund
VHC	Village Health Committee
WHC	Ward Health Committee
WHO	World Health Organization

Introduction

Capacity is one of the widely supported concept in the field of international development.The emphasis given on capacity during the Paris declaration on aid effectiveness makes more important.Adequate capacity of District Health Managemnt Team (DHMT) will contribute towards the better service delivery to the target population.Goals of the health system (quality,efficiency,equity and responsiveness) can be better attained by improving the DHMT capacity.

I have worked in Tanzania from 2004-2007 for a capacity building project for Simanjiro DHMT.The project was implemented by Skillshare International from 2001-2007. Being a medical doctor by qualification it was quite an experience for me to work on a capacity building project in a remote district like Simanjiro.In this thesis I had an opportunity to look back into the project by applying the skills I have acquired during my MPH course here at Royal Tropical Institute.

I have used Potter and Brough model to explain and analyze the district capacity and the project inputs. I have compared experiences from other countries with the project.This thesis will through a light on what we did and what all other factors to be considered while designing the future capacity building programs for DHMT.I have discussed about the use and limitations of Potter and Brough model in designing the capacity buidlding programs. Personally this study is good learning experience and an eye opener for me which helped to see capacity with a new perspective and undestand the concept.

Chapter 1: Back Ground Information

1.1 Tanzania Country Profile

Tanzania located in East Africa region with around 40 million people (Projections based on 2002 census) with per capita GNP around $980 (WHO, 2006). For several years Tanzania like many other African nations faced duel burden of a severe shortage of resources and a public health crisis causing a spiral of health problems for the system. The spread of malaria, TB, Malnutrition, HIV/AIDS and other childhood diseases proved deadly to the communities causing high morbidity and mortality (WHO, 2006). Maternal Mortality Ratio (MMR) is 573/100,000 live births Infant Mortality rate (IMR) is 68/1000 live births, under five mortality rate (UMR) is 112/1000 live births (TDHS, 2005).Total Fertility Rate is 5.7 and 46% of deliveries are attended by skilled personnel. Life expectancy at birth for males is 50years and females 51 years. Total expenditure on health per capita international $ 45, total expenditure on health as percentage of Gross Domestic Product (GDP) is 5.5% (WHO, 2006).

Adult literacy rate is 69.4% and the net primary school enrolment ratio is 83.The population below basic needs poverty line is 30% and the population below the food poverty line 15% in 2003 (Tanzania poverty and human development report (TPHR), 2005).The TPHR , lowered the poverty line to less than $0.27 PPP hence the percentage of population is low. However the UNDP estimates that 37.7% people live below less than a dollar per person per day (UNDP, 2006).

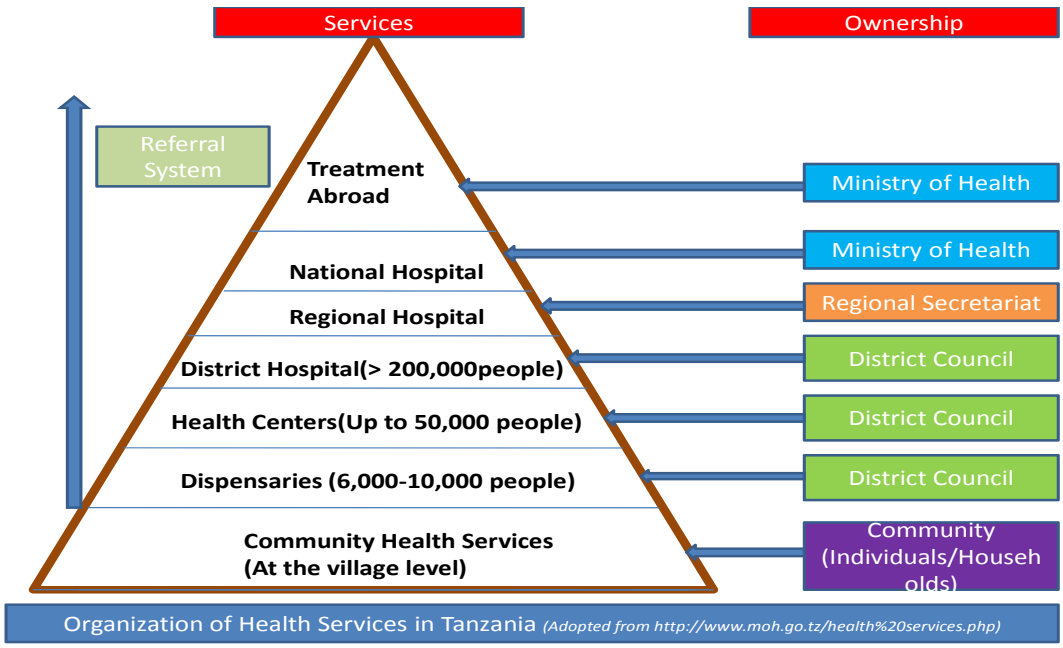
1.2 Millennium Development Goals (MDGs) and Tanzania

According MDG Progress report (2006) prepared by Ministry of Planning, Economy and Empowerment (MoP E& E), Tanzania is on track to reach the indicators related to primary education, proportion of children vaccinated access to sanitation and gender equality. However it is lagging behind in the remaining areas (MoP E & E, 2006).

1.3 Organization of Health Services in Tanzania

The health system and especially the Government referral system is a pyramidal pattern which starts from the community level (village) and goes up to the treatment abroad (MoH, No date).

Figure 1: Organization of health services in Tanzania



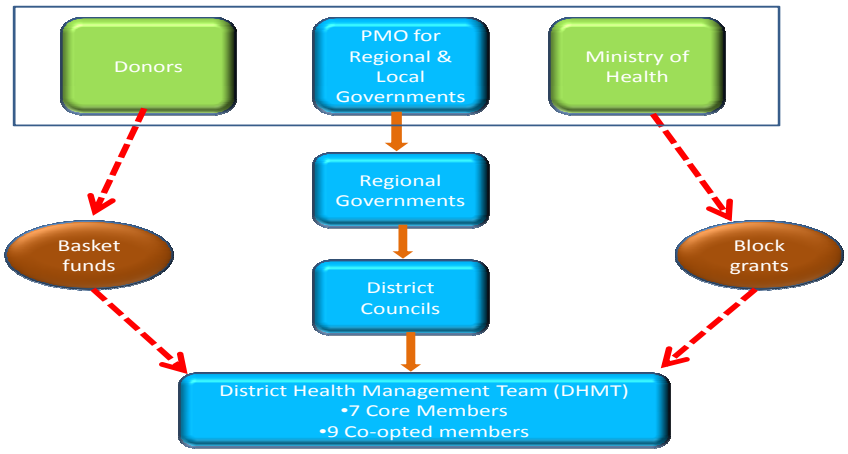
(Source: http://www.moh.go.tz)

1.4 Decentralization-National Level

Since Independence, the government has adopted several decentralization measures geared towards promoting rural and urban development by giving the people more power in decision making and involving them in the planning, implementation, and evaluation process . The decentralization process started in 1967 with an introduction of Regional Development Fund and the decentralization of government administration started in July 1972 by creating development committees at regional, district and ward levels (Hutchison P,2002).The type of decentralization in Tanzania is devolution of powers through local government democratic organs.

Though the decentralization process in many DHMTs is far from complete, it is yielding better results where the process has begun. The reasons being greater availability of funds, better coordination with donors, greater ability to attract and retain staff etc, (Hutchison P, 2002). For example 42% of DHMTs in decentralized districts reported that the availability of funds from the district level to implementers was good/very good as compared with 32% of DHMTs in non decentralized districts (Hutchison P, 2002).

Figure 2: Decentralization in Tanzania



(Decentralization in Tanzania- Source: MoH, Tanzania)

1.5 Simanjiro District

1.5.1 General information

Simanjiro district is one of the 5 districts of Manyara region of Tanzania. The district is 21,000 square kilometres in area and it has 6 divisions 15wards, 48 registered villages and 227 sub villages (CCHP, 2007). The district is sparsely populated with Mererani being the largest town. District head quarters are in Orkesumet where DHMT and other District council offices are located.

1.5.2 Demography situation

According to the 2002 Tanzania national Census, the population of Simanjiro was 141,136, males being 76,351 and females 64,785(Census Tanzania, 2002).The projected population for 2007 is 181,000 (CCHP, 2007).Rural population is 99,672 and urban 41,464 and the ratio of women to men in Simanjiro District is 97 to 100 (Census, 2002). Population density per square kilometre is 7 (TPHR, 2005).The Maasai contributes about 92% to the total population of the district. Other ethnic groups include: Waarusha, Meru, Nguu, Pare, Bondei, Chagga, Somalian, Ndorobo, Ngoni, etc. (CCHP, 2006)

1.5.3 Culture &Gender

Maasai society is patriarchal in nature dominated by men. Men are the power centres in the family with decision making authority (Hodgson, 1999). Female Genital Mutilation is a common cultural practice among the Maasai which is contributing to unwanted obstetric outcomes like postpartum haemorrhage etc.(WHO,2005).Gender norms of the Maasai society could have an influence on the health status of the women as they

are not in a position to make decisions to seek health care services (Hodgson, 1999). Maasai culture encourages polygamy within and outside of marriage resulting in to large networks of sexual relationships which could easily facilitate the spread of HIV within the tribe (Talle A, 1995).

1.5.4 Economic situation

The Maasai population in the district is primarily rural and livestock-dependent, the majority of the households increasingly diversifying towards agropastoralism and non-farm activities like bee keeping etc (CCHP, 2008). Other economic activities include mining, fishing and petty business (CCHP, 2006). Percentage of population living below poverty line is 43% (District health in Tanzania, n.d.) and households with electricity are 9.1 % (TPHR, 2005). No data is available for the per capita income at district level.

1.5.5 Transportation

There are no tarmac roads in the district but it has 240 kilo meters gravel, 1,085km earth roads. The district has 13 air strips, which are mostly used by large scale farmers and Flying Doctors (CCHP, 2006). In general the district has limited road network and inadequate infrastructure; hence the transportation and communication across the district is difficult especially during rainy season as the earth roads become difficult to travel (CCHP, 2006).

1.5.6 Educational situation

According to District Education Officer report for the year 2006-07 the government runs 65 primary schools (CCHP, 2006). Adult literacy rate in the district is 62% (TPHR, 2005).

1.5.7 Health sector situation

The table in the annexure 1 explains the morbidity data from all the health facilities in the district. The project needs assessment report, 2000 states that about 30% of people live within the 5 km radius of a health facility. Average number of people per health facility 5,041 in the district (TPHR, 2005).As district is large in size and population density is sparse the services are not accessible to the people due to long distances to travel (Masuma and Maggie, 2003). Generally the health seeking behaviour of the Maasai is poor as in case of disease they first approach a traditional healer with in their community. Supply side issues like availability and accessibility of health care services also have an influence on utilization of services(Project needs assessment report, 2000).

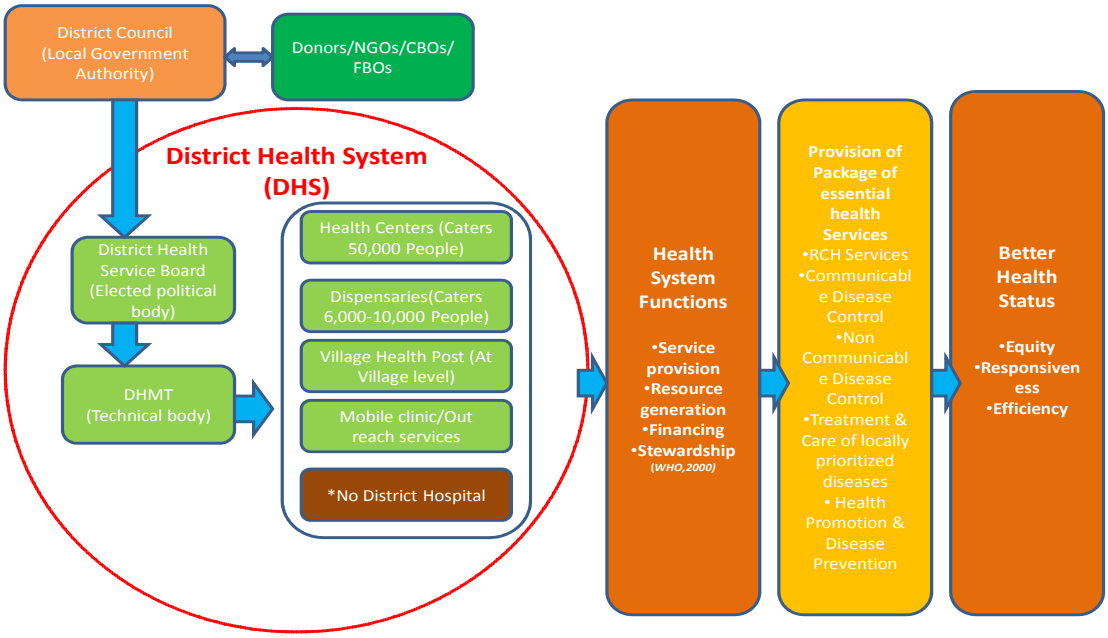
A .*Health infrastructure*

The district has 33 dispensaries (government &NGOs, Private), out of which 21 dispensaries provides Reproductive and Child Health (RCH) Services (CCHP, 2006).Dispensaries do not provide Emergency Obstetric Care (EmOC) but it is available at health centre level..Five of the NGO and private dispensaries are located in Mererani town and surrounding areas. The district has 3 health centres and has no district hospital. A district designated hospital is under construction in partnership with Evangelical Lutheran Church of Tanzania (ELCT).There is a large gap in current and required staffing levels in the government owned facilities (CCHP,2008). The staffing situation at DHMT and health centre level is in Annexure 2.The staffing situation is explained in Table 2.

B. *Organization of district health system*

The below Figure explains the organization of district health system.DHMT being the technical agency responsible to district council through elected District Health Service Board (DHSB).DHMT supervises the health care delivery facilities both government and private and it is responsible for planning, management and delivery of services (curative and preventive) in the district.

Figure 3: Components of district health system:



(Source: MoH, Tanzania)

The detailed description about DHMT's functions is explained in Annex3

C. *DHMT-Organizational Structure*

District Health Management team headed by District Medical Officer. It has 7 core members who will form a decision making body for all health related matters in the district. The DHMT organogram is in annex 4.

The core members are appointed by the act of parliament and they are the decision making authority in the district. The DHMT appoints co opted members from the community and NGOs to provide advice. Co opted members have no authority to make decisions apart from providing the advice.

D. *District Health Service Board (DHSB)*

DHSB is an elected body which oversees functioning of DHMT, Hospital boards and Facility boards. It was formed in 2006 in the district (CCHP, 2008).Roles and responsibilities of DHSB are detailed in annex 5.

1.6 Capacity building definitions & Approaches

There is no single definition for capacity. The concept of capacity, its application and practice remain as a confusing puzzle particularly in international development. Like many other disciplines capacity is not an academic discipline and it is not obvious unless it is linked to human resources development (Morgan P., 2006).

The Organization for Economic Co-operation and Development (OECD) defines capacity as "ability of people, organizations and society as a whole to manage their affairs successfully" (OECD, 2006).It involves 3 three different but interdependent levels namely individual, organizational and enabling environment. Peter Morgan (2006) defined capacity as "the overall ability of a system to create a value" and competencies as "energy, skills, behaviours, motivations, influence and abilities of individuals".

For many years the capacity development was considered mainly as transfer of knowledge or organisational models through a technical process from north to south. The wider socio political context within which capacity development efforts took place did not received adequate focus and attention (OECD, 2006).

Until recently the terms capacity development and capacity building have been used interchangeably. Organizations like United Nations Development Program (UNDP) prefers to use capacity development rather than capacity building as it is more comprehensive and good at reflecting

its approach in a best possible manner (UNDP, 2008).These differences in language and usage of the term capacity reflects how capacity is understood earlier and how it is evolved to present level.

UNDP defines capacity development as "a process through which societies individuals, communities and organizations obtain, strengthen and maintain capabilities to determine and achieve their own objectives for development over a period of time'' (UNDP, 2008).

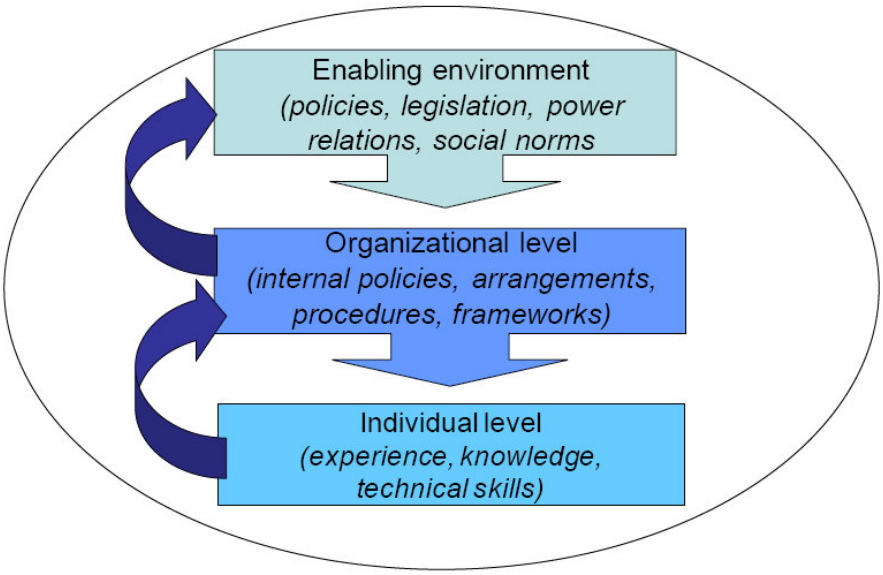
According to OECD the "Capacity development is a process whereby people, organisations and society as a whole unleash, strengthen, create, adapt and maintain capacity over time"(OECD,2006). Capacity development would not be effective unless it gets its impulse from within in order to start a process of endogenous change which eventually leads to overall change.

Capacity development often refers to the process of creating, building capacities and sustaining it for subsequent use. This process starts from existing capacity assets of an organization or system and driven from the inside which will create an ownership (UNDP, 2008).On the other hand capacity building often refers to a process which supports only the beginning stages of creating capacities with an assumption that there is no existing capacity within the system or organization before an intervention. This assumption makes it less comprehensive compared to capacity development as in all organizations and systems some amount of capacity always exists. To a certain extent the capacity building term can be applied to post conflict situations where capacities are completely lost.

OECD further explains 'capacity building' by saying that the 'building' metaphor suggests a process wit ah step by step erection of a new structure on a plain surface with a preconceived design. The capacity of an organization or a system is not successfully enhanced in this way according to the experience. (OECD, 2006)

The 3 levels of capacity development are explained in the below diagram. All three levels are interdependent and mutually interactive and each level has an influence on other level (UNDP, 2008).

Figure 4: Levels of Capacity



(Source: UNDP, 2008)

Though the definitions and understanding differs to an extent, it was commonly agreed that capacity development is a long term process which looks beyond individual skills and training and emphasizes use of existing national systems while adapting to the local circumstances (UNDP, 2008).The Potter and Brough model (Potter and Brough, 2004) which is used as framework in this thesis further expanded the above mentioned components to 9 categories.

Although the term capacity building is more comprehensive, throughout thesis I have used the term capacity building. The reason being when the project was started in 2001 the capacity development term was not used widely. In all the project documents and reports the term capacity building was used.

Chapter 2: Problem Statement, Objectives and Methodology

2.1 Problem Statement

The burden of disease in Simanjiro district is similar to the national trends (Tanzania Service Provision Assessment survey, 2006). Malaria is the leading cause of outpatient attendance at national level (41%) as well as at district level (40%) in the year 2006 (TSPA, 2006). The maternal mortality ratio (MMR) in the country has increased from 528/100,000live births in 1996 to 578/100,000 live births in 2006 (TSPA, 2006), but in the district the accurate data is not available as the 70% of all deliveries (CCHP, 2006) in the district are home based, assisted by Traditional Birth Attendants (TBAs) and the outcome of the pregnancies are often not reported. According to a report on decentralization and gender study (Lange S and Schanke L,2007), in the neighbouring Kiteto district where similar conditions exists (Simanjiro district was part of Kiteto district until 1994) the MMR was recorded in a study in 2006 as 645/100,000 which could give a picture of Simanjiro. Female genital mutilation is one of the risk factor for women's health and negative pregnancy outcomes (Lange S and Schanke L, 2007) which is a common cultural practice among the Maasai tribe ((Hodgson, 1999). WHO-UNICEF identified Simanjiro district as one among the 12 high risk districts in the mainland Tanzania, which needs special campaign for the elimination of maternal and neonatal Tetanus (WHO & UNICEF EPI discussion paper draft, n. d.).

Child health is a concern as the under five mortality being 57/1000 live births and infant mortality is 40/1000 live births in the district for the year 2005/06(District health in Tanzania, n.d.). The Tanzania Demographic and Health Survey (TDHS, 2006) states that 71% of all children among 12-23months were fully immunized nationwide as per WHO Expanded Immunization schedule and in the district according to Council Comprehensive Health Plan, 2006 (CCHP, 2006) it is 83%. A study in Simanjiro to assess the nutritional status among the children, the z-scores of weight-for-age, weight-for-height and height-for-age indicated that 31.2% of the children were underweight and out them 6.0% children were severely underweight (Nyaruhucha C N M *etal*,2006).

According to an update report by Water aid, based on population and housing census (2002), in Simanjiro 35% of urban households and 37% of rural households has access to improved water source (Wateraid,2005) The report also states that in the district 61% of households are not using a toilet facility which could be a contributing factor to the outbreaks of diarrhoeal diseases .For example every year during the rainy season there is increase in incidence of diarrhoeal diseases among the areas around Nyumba ya Mungu dam (Annual project report,2006). In 2005 the

Cholera outbreak spread across the district killing 3 people in Orkesumet village which is the district head quarters (CCHP, 2006).

Tanzania declared HIV/AIDS as a national disaster in 1999 (TSPA, 2006). According to the 2003-04 Tanzania HIV/AIDS Indicator Survey (THIS, 2005) the nationwide HIV prevalence is 7% among adults age 15-49 years and according to District AIDS Control Coordinator (DACC) annual report, the prevalence in the district is around 18% (DACC Annual report, 2006).In the Mererani town which is the home for Tanzanite mining industry it is estimated by some NGOs to be around 30% (vetaid,n.d.).

In Tanzania 68% of the rural population live is within 5 km of a health facility and 32% percent are within 10 km of a hospital (Poverty and Human Development Report, 2005). In the district the situation is worse, according to the project needs assessment survey (2000) only 30% of people live within the 5km radius of a health facility. Increase in number of dispensaries from 16 to 33 and health centres from 1 to 3 (CCHP, 2006) did not help much to improve the overall coverage due to the nomadic life style of Maasai. No district hospital is available for referral services. The geographical coverage of services is limited as the size of the district is huge and consists of sparsely populated scattered villages (www.hki.org , 2006) which in turn contributing to low utilization of services (Dor.A etal, 1987). For example a person in Loiborsoit village has to travel around 30km to reach Emboret to access the ANC services (Tanzania participatory poverty assessment report, 2003). According to the estimates about 43% of people in the district live below poverty line in the year 2005/06 (District health in Tanzania, n.d.) and many of these people remain at home when they are sick as services are not affordable financially.

Government run health facilities are understaffed which have adverse effect on service delivery (See annex 2). Tanzania loses 2.4% doctors and 2.2% of nurses and midwives due to premature mortality (deaths before reaching the age of 60 years) whereas for every 1000 currently active nurses and midwives only 3 new nurses and midwives enter into the workforce (UNICEF Tanzania,2007). According to a review report, out of 10 Clinical Officer vacancies only one was filled in Simanjiro district (Annual health sector review report, 2006). Furthermore only11 Public health nurse B are available out of required 40 and 12 medical attendants are available out of required 30. The total vacancies among all three categories of staff at dispensary level are 49 out of 118 posts (CCHP, 2006). The DHMT needs 4 more qualified people to be full in terms of numbers (CCHP 2006). Although there is an indent system the district faces recurrent shortages of essential drugs and supplies due to incorrect orders, irrational prescriptions and late submission of requisitions (Annual health sector review report, 2006). Half of the government health unit's buildings are in bad state (Annex 8), needing immediate repairs; others

lack rooms for deliveries and antenatal care. Infrastructure like staff quarters either don't exist at dispensary level or they are not enough for all staff at the health unit (Annual project report, 2006) which may have a negative effect on the motivation and functioning of the staff to perform their routine duties (Peters *et al* 2002).In some cases low staff morale could be due to low salary levels in the government system (Haynes A and Sanders D, 2005). Around 50 other NGOs and CBOs (District annual progress report, 2006) also provide either preventive or curative services in the district which requires a lot of time and capacity of DHMT to coordinate these stakeholders or the services. Among the NGOs 6 organizations are providing curative services (CCHP, 2006).

Health Management Information System (HMIS) is critical for the planning, efficient surveillance and response mechanisms to prevent the epidemics (WHO,SEARO,2003).A HMIS exists across the country but the information which is generated is not used at the district level (www.hki.org, 2006) for planning. District health planning is resource based and the evidence is hardly used to address the local needs.

The data still lacks comprehensiveness, reliability and timeliness which is not helping to make in planning and decision making at the district level and upwards (Annual joint health sector review, 2003). There are difficulties in ensuring the registration of births and deaths in the rural areas of Tanzania as in Simanjiro district. Although Tanzanian government had births and deaths registration ordinance since 1920 less than 10% of children registered at the national level (UNICEF, Tanzania, 2007).At the district level the data about births and deaths is not available but these figures could be much low due to the nomadic life style of Maasai people.

The Tanzanian health policy is influenced by various multilateral, bilateral donors as well as World Bank and IMF. Conditions put by these big donors directly or indirectly affecting the health care financing. Health sector reforms are largely driven by the external agencies and government is unable exert full control. Donors fund almost half (50%) of total health care budget and the government has to increase the funding for health sector to have better ownership (Shiner A, 2003).

The national health policy of Tanzania (NHP,2003),envisages to improve the health and well being of all Tanzanians focussing on most at risk by encouraging the health system to be more responsive to the needs of the people. One of the policy objectives is reduction of maternal and infant mortality by providing adequate and equitable maternal and child health (MCH) services. The health services under decentralization devolved to local government and DHMT is responsible for ensuring that the services are provided with an acceptable quality which in line with Ministry of

Health Policy Guidelines and Standards (NHP, 2003) which requires strengthening the capacity of lower level functionaries adequately (Collins C and Green A,1994) .

The capacity of DHMT to plan and provide the basic minimum package of health services to the target population according to the national standards is necessary (Conn CP *et al*, 1996). The district health care delivery depends upon the DHMT capacity to lead and manage the services as well as by effective partnership with other stakeholders within the district health system. According to WHO, some of the gaps in the implementation of primary health care strategy are due to lack of appropriate knowledge, skills and capacities in district health managers (WHO,AFRO,2004). WHO recommends that Leadership and management is one of the key areas which need to be strengthened among DHMTs (WHO,AFRO,2004).Therefore to address the capacity needs of Simanjiro district health management team, Skill share International implemented a capacity building project for a period of 6 years (2001-07).

2.2 Brief description about the Project

To improve the capacity of DHMT, Skill share International (UK Based Charity) in partnership with Simanjiro District Council implemented a capacity building program (Simanjiro District Mother and Child Health (MCH) Capacity Building Program) for DHMT for a period of 6 years from 2001-2007.The project was funded by Big Lottery Fund, UK. The project goal was to improve the MCH services in the district by building the capacity of DHMT. The anticipated outcomes were to improve the antenatal coverage, immunization coverage and community capacity. The project placed technical experts within the DHMT enabling them both to work hand in hand.

2.3 Rationale

The thesis will review the interventions of project to improve the DHMT capacity, in order to provide suggestions for future capacity building programs for all stakeholders.The paper will discuss the various activities carried out during the project life,achievements and challenges.It will also discuss about various socio cultural and political issues which have inluenced the project outcomes either negatively or positively.

2.4 Objectives

1. To idenify and describe the factors affecting the performance of DHMT,Simanjiro
2. To analyse capacity of DHMT and review what has been done by project to address the gaps
3. To analyse capacity building approaches for DHMTs experienced elsewhere in Low and Middle Income Countries.

4. To make recommendations to stakeholders involved in capacity building programs for DHMTs.

2.5 Methodology

2.5.1 Type of Study

This is a retrospective case study (descriptive) of Simanjiro Mother and Child Health Capacity building project,Tanzania from 2001-2007.

2.5.2 Search strategy

Various search engines were used to search the literature.Pubmed for peer reviewed articles,Google for grey literature,Ministry of Health website for policy guidelines and other latest health information,World Health Organization website to compare the regional information.Unpublished Council Comprehensive Health Plans,Project reports and District Progress Reports also frequently used.

During the thesis writing process I had group discussion with collegues,feed back sessions ,email and telephone communication with the people from Simanjiro district.

2.5.3 Key words

Capacity building, DHMT, District health system, Sector wide approach, Effectiveness of capacity building programs, Decentralization, Performance and motivation of health workers, basket funding, Tanzania national health policy, Ministry of Health, District Health System, Governance, Human resources for health, Poverty Reduction Strategy Paper, Local government reform program, Health care financing. The combination of above mentioned key words also used during the search.

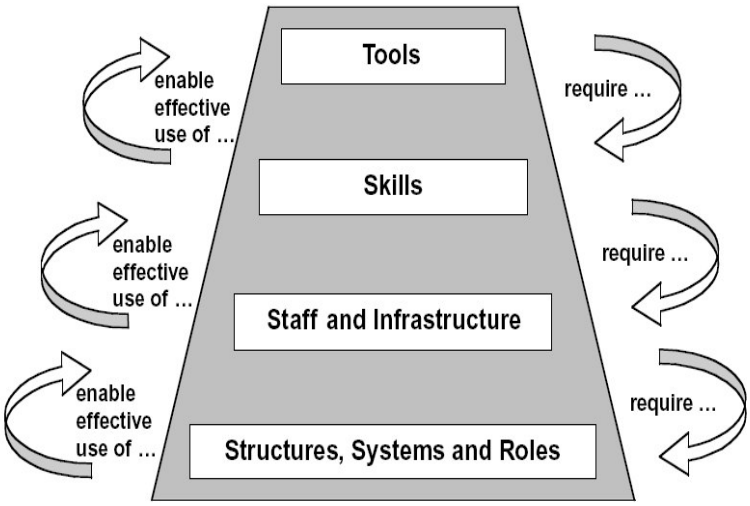
2.5.4 Selection & Modification of the Potter & Brough model

According to Potter & Brough (Potter C and Brough,2004) in a complex socio cultural scenario attempting to develop one definition for various capacity needs will have limited meaning.They have recognized that there is a hierarchy of capacity building needs for a given system/organization.By applying the capacity pyramid systematically to a given system it is possible to analyse the capacity gaps in each component which gives a better understanding about the organizational capacity gaps in a logical manner.

In many instances the capacity building is perceived as training the staff but Potter & Brough model goes beyond traditional view of capacity building by explaing in a systematic way. According to Potter& Brough, capacity building needs of an organization can be categorized into 4 major groups starting from the bottom of the pyramid: Structures, systems and

roles, Staff & facilities, Skills, Tools. The model helps to diagnose sector wise shortcomings at each level by emphasizing on the systemic analysis of capacity needs. This will ultimately improve the program/project design, implementation, monitoring and effective use of available resources. The model was developed through an extensive research in 25 states of India (Potter and Brough, 2004).

Fig 5: Potter & Brough- Capacity Pyramid

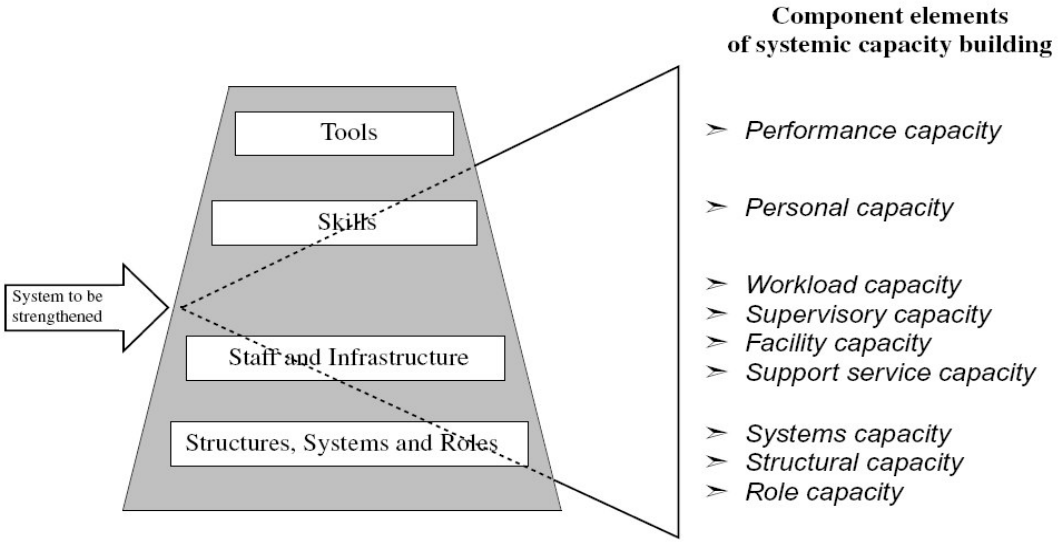


(Source :Potter& Brough,2004.Page 341)

A. *The nine subcomponents of capacity pyramid*

The below diagram explains the elements of systemic capacity pyramid.

Figure 6: Capacity Pyramid as prism



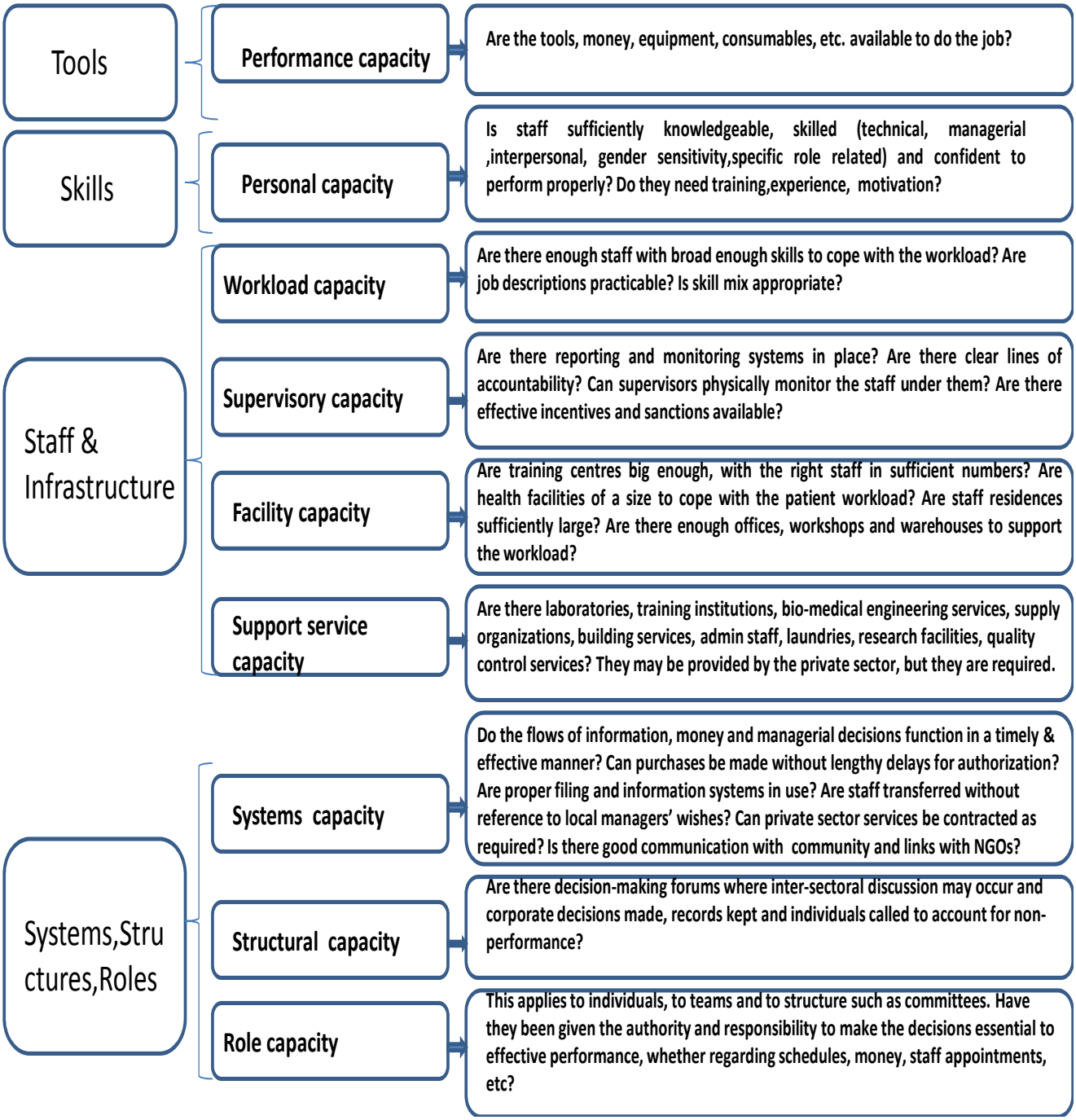
(Source; Potter & Brough, 2004. Page 341)

Potter and Brough explained about what can be included in each subcomponent of the model based on their action research experiences from India.

B.*Elements of capacity pyramid*

The below figure explains about various componets and their practical meaning.

Figure 7: Meaning of subcomponents in the capacity pyramid



(Source: Potter & Brough, 2004 Page 340)

2.5.5 Set up of thesis

This thesis is a retrospective analysis of situation beginning from 2001-2007.The model is used to explain the DHMT and facility capacity at the end of the project and the various project activities to reach the end situation.The trainings are analysed at output level (immediate results) as there was no inbuilt mechanism in the project to measure the capacity outcomes.Further more there were many different stakeholders in the district who were doing the similar capacity building activities like Skillshare International.

2.5.6 Limitations

The model doesn't explain about external political and socio cultural environment which may have influence on the systemic capacity building.Moreover certain components of the model are difficult apply in situations like Simanjiro where people are semi nomadic. For example having large facilities with all the capacity may not be useful in improving the coverage unless there is a well organized outreach service.

There was no hard data collected during the project implementation as well is during the final project evaluation process. The evaluation report analysed various inputs and attributed them to present situation in the district. Lack of adequate evidence to measure the project impact certainly a limitation for this thesis.

I had to use lot of grey unpublished literature while writing this paper. The accuracy and reliability of available data at the district is sometimes questionable (Annual joint health sector review, 2003).

Chapter3: DHMT Capacity

3.1 Analysis of different levels of DHMT Capacity

Potter and Brough capacity pyramid elaborates about 9 different capacity components in an organization. Different components of capacity of DHMT are explained below by using capacity pyramid model. The approach in this chapter is to explain and analyze the situation at DHMT level and facility level at the end of the project in 2007.The facilities includes health centres, dispensaries and mobile clinics unless it has stated otherwise.

3.1.1 Performance capacity

DHMT

The district receives 50% of its budget from central government. Since 2005/06 financial year the allocations for district health constantly improved (Details of the sources are in Annex 9) from Tsh 666,171,740/- (2005/06) to Tsh 1,177,500,894/- (2007/08) due to increase in the allocations from central government in the form of basket fund and block grants (CCHP, 2007). In Tanzania health basket fund is allocated $0.5 per capita per person per year for each district council. The allocation formula of basket funds and block grants is not favorable for Simanjiro as it considers only 4 variables: population (70%), poverty count (10%), District vehicle root (10%), and Under 5 mortality (10%) (MoH, 2002).The distance factor was given only 10% weightage and as it was said earlier that the district is sparsely populated with vast geography which forces DHMT to spend 20% basket funding on transport alone (CCHP, 2007) compromising some priority activities.

Health expenditure per capita in Tanzania (PPP US$) is 29, according 2007/08 human development index report, which makes Tanzania one of the lowest spending countries on health in the world.The recommendation from Commission for Macroeconomics and Health (2001) is that sub-Saharan African nations should increase their spending on health care to US$ 34 per person per year by 2007 and to US $ 38 by 2015, which is approximately about 12% of GDP and Tanzania is far away from the target.

DHMT has only one computer and a printer in the office which is used for administrative purposes. According to project annual report (2004), DHMT members should have one computer each to facilitate their work effectively.

There are 3 refrigerators to store the vaccines which are inadequate to keep enough stock for the entire district (Project report, 2006).All 3 refrigerators use gas which is expensive and occasionally there is shortage of supply. There is no solar power system at the DHMT office.

The DHMT has 4 cars and 3 cars brought by Skillshare International and 1 car by Mkapa Foundation making a total number of available cars 8 (CCHP, 2007). As the number of cars increased the maintenance costs also going up and sometimes cars grounded for months together as limited budget available for maintenance.

There are 2 petrol stations at the district head quarters and often they runs out of the stock which affect the DHMT travel plans particularly mobile clinics and supportive supervision.

Facility level

The district does not have X-ray unit, ultrasound, autoclave (CCHP, 2007) although according to national guidelines a district should have all these facilities. Three health centres have minor operation theatre facilities throughout the whole district. The only dental unit in the district is at Orkesumet which lacks basic equipment like an examination chair (CCHP, 2006). Lack of electricity except in Mererani and Nyumba ya mungu is a problem when it comes to usage of equipment which needs electricity like refrigerators and other lab equipment. Five out of 33 dispensaries were equipped with solar power and in remaining facilities the fridges run with gas which is expensive and occasionally suffer with shortages. Detailed information about inventory is not available.

The community health fund (CHF) was established for facility use in the district in 2006 (CCHP, 2007).According to CCHP 2009 CHF is contributing 9.8% of overall budget of DHMT. However it is still not well established and yet to show the results.

During the rainy season supplies become irregular and facilities face frequent shortages of supplies. There is no mechanism to transfer or shift the supplies between the health facilities when required.

3.1.2 Personal capacity

DHMT

Staff are knowledgeable and confident to perform routine administrative duties (Personal observation) although they all expressed a need for training in their specific job areas (technical) during the training needs assessment (Project needs assessment, 2000).Except District AIDS Control Coordinator (DACC) and District Tuberculosis and Leprosy Coordinator (DTLC) all other DHMT members need training on basic computer skills, disease surveillance and data interpretation.

Training is an important mechanism to increase the knowledge and skills among the providers which could ultimately contribute to the improved performance (M. dieleman *et al*, 2009).This article also states that none of the studies talks explicitly about how staff motivation can be achieved

,however it also states that like providing the financial incentives, creating a sense of belongingness and empowerment of staff to develop initiatives for change through creating an awareness will contribute to improve the motivation(M. dieleman *et al*, 2009).However in Simanjiro there is no mechanism of providing direct financial incentives to the staff but often they will be sent to various trainings where they may benefit financially to an extent. Some of the DHMT members have gone for long term studies leaving the duties for other members which affected the functioning of DHMT as the delegated persons inexperienced. (District lab coordinator from 2004-07, DMO from 2004-05, District Reproductive Health Officer 2005-07)(Project internal evaluation report, 2007). In Simanjiro once the staffs is trained and acquired adequate skills and experience they usually prefer to move to other better places where living conditions are good which makes situation worst.

My own observation is that the morale of the staff is low as the living and working conditions are harsh particularly in the central part of the district. The interpersonal skills among the staff are good and they maintain good relationships with each other could be due to cultural values (Personal observation). Also sensitive about the gender issues and in my experience I never came across a situation where staff complained about gender discrimination or not having the equal opportunities.

Facility level

The Final evaluation report (2007) states that although nurses and medical attendants are capable of doing basic calculations related to routine immunization services like vaccine wastage rate, usage rate and the cumulative number of clients' vaccinated. However still there is lot room to improve the accuracy and reliability of data. In study in neighbouring Hai district the primary health care workers felt that they were forced to handle the cases in which they were not trained (Manongi *etal*,2006) which could be applied for Simanjiro situation also.

The study also states that many clinical officers felt that they could have handled cases in a better way with some training. According to the service providers, the main factors resulting in low motivation among the staff working at primary health care facilities were workload combined with shortage of staffs, lack of exchange of knowledge among the professionals and lack of positive supportive supervision by DHMT and lack of emphasis on career development plans (Manongi *etal*, 2006).The motivation levels of the staff also affected by lack of recreation facilities, schools for children and lack of transport. Based on my personal experience the study results were well applicable for Simanjiro district.

The level of education and the wealth quintile of the client have a role in determining the quality of care. TEHIPs research elsewhere in Tanzania

found that the poorest people were treated differently from the richest at the facility level. Similarly women with secondary education has a better access to Caesarean section (over 12%) compared to women with no formal education (just over 1%) (Annual health sector review report, 2006). Based on this report which matches with my personal observation, one can say that service providers are not sensitive to client's absolute health needs but they are biased in giving preferential treatment to educated wealthy people.

Table 1: Level of education and Antenatal care

Access to Quality Antenatal Care: TDHS 2004/5 (from table 9.7)

Level of Education	Informed about pregnancy complications	Weight measured	BP taken	Urine taken	Received iron	Given antimalarials
None	36.4%	91.0%	53.1%	26.0%	57.4%	39.7%
Secondary +	65.7%	97.1%	92.9%	84.1%	58.9% (primary incomplete 65.1)	58.2%

(Source: TDHS 2004/05)

3.1.3 Workload capacity

DHMT

Ideally DHMT must have 7 core members according to MoH guidelines but it was never full in numbers during my period from 2004-07.According to CCHP, 2009 the DHMT needs 4 more people to be full. This is adversely affecting the overall functioning of the DHMT as existing members has to carry additional burden of the posts that are vacant. Often the number of co opted members is more than core members which has an influence on decision making. Occasionally the core members' responsibilities are delegated to co opted members who are not formally responsible for decision making according to MoH guide lines. No information is available about skills mix if it is appropriate (Details are in Annex 2) as everybody does everything. For example sometimes mobile clinic coordinator and environmental health officer go with mobile clinics even it is not their job according the job description.

Facility level

In Simanjiro most of the qualified staff located in the facilities which are bordering with other districts. Central part of the district often suffers with inadequate staff (Project annual report,2006).Qualified staff in the government run facilities carry more than twice the burden workload compared to facilities run by NGOs and more than 6 times the burden of

private for profit facilities. Compared to voluntary agencies, government facilities less attractive for personnel. The relatively low number of staff at government facilities is resulting in high workload per qualified staff in the district. According to CCHP, 2008 in the urban areas like Mererani township the work load is high compared to the rural remote dispensaries. For example in Orkesumet town, sometimes 3 DHMT members who are doctors have to perform clinical duties leaving their other management functions due to the lack of clinical officers. Although job descriptions are available the awareness among the staff is little (Personal observation). In certain instances the job descriptions are not taken into consideration while assigning the duties. Often it is done on ad hoc basis by DMO depending upon the need of that particular day.

Table 2: MANPOWER AT DISPENSARY LEVEL

Type of personnel	Requirement (According to MoH Guidelines)	Available	Understaffing
Clinical Officer	48	40	08
Public Health nurse B	40	11	29
Medical Attendants	30	18	12
Total	118	69	49

(Source: CCHP, 2008)

The staffing levels of health centres are in annex 3.

3.1.4 Supervisory capacity

DHMT

Within the DHMT there are clear lines of reporting and accountability according to organogram (Annex 4). The DHMT members are accountable to DMO who in turn is accountable to district council. The DHMT receives technical support from The Regional Health management Team (RHMT) provides technical support to DHMT through quarterly supportive supervision according to MoH guidelines. Apart from this the RHMT closely monitors DHMT during the emergencies such as disease out breaks.

The communication within DHMT happens through formal and informal ways. According my experience the communication adequate and effective and lack of communication among the DHMT members was never been an issue. A formal system for incentives and sanctions along with annual performance appraisal results is available in the district. At the DHMT level DMO monitors the staff physically. Reporting and monitoring between DHMT and peripheral facilities is inadequate due to distance and lack of reliable communication facilities.

Facility level

Reporting, monitoring and supportive supervision systems are in place. In supportive supervision visit there is an element of monitoring and reporting. The supportive supervision is not working according to the national guidelines (MoH, 2002). For example an annual schedule for supportive supervision is available it is frequently hampered by irregular flow of funds, lack of transport and in the rainy seasons (March-June) it is almost impossible to move from one place to another. According to the national supportive supervision guidelines the facilities which are providing antenatal care services should be visited once in a month and other facilities once in 3 months (MoH, Tanzania). Each year only 60%-70% of supportive supervision trips are conducted out total planned 300 visits. For the year 2006 out of planned 300 visits 186 supportive supervision visits were conducted (CCHP, 2007).

During the supportive supervision supervisors often does not physically monitor the health facility staff. Usually during each supervision trip 3 facilities to be visited in 2 days. Often the supervisors leave from headquarters in the afternoon and by the time they reach a facility it will be closing time in the evening. Again next day when they start supervision they may get an opportunity to physically monitor the staff at one facility if it is near. The supervision goes for four hours mainly looking at the records, immunization data, antenatal clinic data and prescription practices.

Supportive supervision supposed to be quality improvement tool which is still weak (Annual health sector review report, 2006).The supervision is more formal without adequate preparation and problem solving approach. The role of RHMT in the supportive supervision to the facilities is unclear which a matter of debate. (Annual health sector review report, 2006).

In a study (Manongi *etal*, 2006) about supportive supervision in Tanzania states that often the staff from peripheral facilities report that there is inadequate onsite supervision from the immediate supervisors and the DHMT supervision is irregular without being supportive. They also complained that they often don't receive any written feedback from the DHMT after supportive supervision visit. In the same study according to a DMO, the supportive supervision gets affected due to the ad hoc meetings and unplanned visits from MoH. According to my experience in Simanjiro the situation of supportive supervision is more or less similar and matches with the findings of the study.

Incentives and sanctions are available and used as per the MoH staff guidelines.

3.1.5 Facility capacity

DHMT

The DHMT at Orkesumet has an office with 9 rooms but only4 rooms are used for office purpose and the remaining used as stores (Annual project report, 2006). The available office space is insufficient as the total DHMT members are 20 (including core and co opted).There are no separate storage facilities or warehouses at the district head quarters and available space in not sufficient. There are no conference facilities for meetings. No staff residencies available for DHMT members.

Facility level

The structural quality of the buildings is a key element in the quality of care provided at dispensary and health centre level (L.Gilson, 1995). The available data (CCHP,2008) shows that out of 33 facilities in the district only 8 facilities are in good condition,21 facilities requires minor repairs and maintainace and 4 facilities to be demolished and reconstructed (Details are in the annex 7). At the district head quarters Orkesumet the health centre is run in 4 rooms (1 room for pharmacy, 1 injection room other 2 are for consultations) which makes difficult to cope with the patient load.

Average number of people per health facility in the district 5,041 (Tanzania poverty and human development report, 2005).Number of people covered by each dispensary is detailed in annex 7.The district has total 33 dispensaries 3 health centres (CCHP, 2007) and has no district hospital.

The Maasai is traditionally nomadic community and the static health facilities are not much useful in case of Simanjiro situation. DHMT along with other partners (World vision Tanzania, Skill share International, Flying Medical Services, Roman Catholic Church, Living Water Foundation, SMMU) organizes outreach services in 56 sites once in a month which includes antenatal services and immunization services for children (CCHP, 2006). Although no hard data available for utilization of mobile clinics according to my personal observation on an average each mobile clinic is visited by 70-100 people. As it was emphasized in National Road Map Strategic Plan to accelerate reduction of maternal, newborn and child deaths in Tanzania (2008-2015), there is a need to improve the number mobile clinic sites from present 56 to 100 out of total 200 identified sites (Project internal evaluation report, 2006). For this to happen the budget allocation to be increased from 6.5 million Tsh to 15million Tsh. A study from Gambia (Fox Rushby J.A ,1996) mobile clinic services are expensive compared to static services the indirect costs (like travel) on the clients will be less but more number of maternal deaths could be averted by early detection of pregnancy related complications. For Simanjiro situation also more people can be reached through mobile clinics and as a result many lives can be saved.

The utilization of general services is low compared with national standards. The low utilisation of services is striking when it comes to facility based deliveries. Although the 70% of pregnant mothers at least makes one ANC visit less than 30% of deliveries occurs in the facilities (CCHP, 2006). The nationwide trends also same where fewer than 50% deliveries occurs in the facilities which was explained by poverty, distance to travel to reach the health facility, availability of transport and cultural barriers (Annual health sector review report,2006).At dispensary level it is also could be true that client perception is that no EMOC services or staff are unavailable hence delivering at the facility is no added value (Annual health sector review report,2006).The facility related barriers like lack of supplies and equipment, non availability of staff also have an effect on utilization. There are around 980 Traditional Birth Attendants (TBAs) (District TBA Register, 2006) who conduct 70 % all deliveries in the district. The availability of TBAs within the community and their exercise of informal authority over younger mothers also contribute to the low percentage of facility based deliveries. Around 100 TBAs are trained (3 times and each time for 1 week) to conduct deliveries in hygienic manner and supplied with TBA kits but others still continue to do the deliveries in an unhygienic manner (District TBA Register, 2006).Although TBAs are still relevant to the districts like Simanjiro the MoH started discouraging TBAs since 2006.

There is neither district hospital and nor training centre in the district. The nearest training centre is in Arusha which 180km away. The staff residencies are available in Nyumba ya mungu, Naberera and Mererani health centres (CCHP, 2008).The dispensary staff usually has to arrange their own accommodation.

3.1.6 Support service capacity

DHMT

The district lab coordinator post is vacant (CCHP, 2006) and there is no district level laboratory. Within the district there no training institutions, biomedical engineering services, supply organizations, research facilities and quality control services(CCHP,2008).The district doesn't have a blood bank and district level laboratory. The building construction services are provided by government and there is no private sector involvement. A secretary is available in DMO's office for administrative work.

Maintenance services for medical equipment are not available in the district. For example if there problem with computer or refrigerator they have to be taken to Arusha. A garage to repair the cars exists at Orkesumet and Mererani town.

A referral system exists based on MoH guidelines. Often complicated cases from Orkesumet are referred to Arusha or Moshi which are

approximately 180 kilo meters away. The referrals are expensive as the patients have to be sent in a car which becomes one day trip.

Facility level

It was found in a study that especially in government health centres and dispensaries they make fewer blood slides for malaria and they are less likely to make correct diagnosis could be due to lack of lab facilities, equipment and supplies like reagents (Gilbert R.Milga, 2003). Out of 33 health facilities 21 are having basic laboratory facilities where ANC services are provided (CCHP, 2006).These labs are capable of doing more common tests like Malaria, Haemoglobin, Typhoid. The samples for CD4 count from HIV patients are sent to Arusha with the support of Mkapa Foundation program (CCHP, 2007).

The quality of care to be in consistent with national policies and allocated resources poses a major challenge. A mission report on Tanzania Health SWAp: Achievements, challenges and lessons learnt states that although significant gains were made in other areas; the quality remains still poor below the acceptable standards. Five years after inception of SWAp in 2003, the focus was shifted from process and system improvement to quality of care. One can assume that these changes will take some time to percolate into the rural districts such as Simanjiro (Paul C, 2005).

However some serious efforts were made with an intention to create the culture of quality among different stakeholders with in the health care delivery system by developing Quality Improvement Framework and National Tracer Standards and Indicators for Quality Improvement (Annual health sector review report, 2006).These were the tools to measure the functional as well as service inputs, utilization of services and final outcomes. The Quality Improvement and Recognition Initiative (QIRI) piloted in Singida and Manyoni regions showed an improvement in the quality of health services which was later expanded to Iringa, Arusha, Manyara regions (Simanjiro district is a part of Manyara region) failed to yield the same results like pilot areas and the reasons were not explained in the report (Annual health sector review report, 2006).The Initiative eventually lost its momentum and implementation in the district.

Other support services like training institutions, bio medical engineering services supply organizations; research facilities etc are not available at facility level.

3.1.7 Systems capacity

DHMT

The frequent experience for District Medical Officer is that he has no control over the funds and occasionally the funds may be diverted to

other activities by the District Executive Director who is the top local government authority in the district (Milga G.R., 2003), the situation could be applicable for Simanjiro also. Despite of some administrative control over staff at district level the main power to hire and fire staff is vested at ministry level. No banking facilities are available in the district and to cash the cheques one has to go to Arusha which causes delays in getting money apart from routine administrative delays.

At the national level the data from HMIS is very patchy in coverage unreliable and not used for planning as it is neither collated or nor disseminated timely. The data use for planning and management purposes was not adequately emphasized during the HMIS trainings instead there was much focus on data collection. (Tanzania joint health review, 2003).There are around 50 NGOs operating in the district (CCHP, 2006) making coordination a challenge for DHMT. Quarterly meetings with all partners are planned in the CCHP, but the attendance is usually low one of the reason could be that the expenses for participants are not paid. The information flow between DHMT and NGOs is a matter of concern particularly when it comes to activity budgets; NGOs are unwilling to disclose the details to DHMT. However DHMT has sufficient links with major NGOs like Marie Stopes International, World vision, ELCT, Roman Catholic Church, Mkapa foundation where DHMT regularly visit them in the field during supportive supervision

At the district level facility based morbidity and mortality data is being used during the annual planning which doesn't reflect the actual situation at the community level. As it was stated earlier in the problem statement the deaths and births happening in the community is often forgotten as they are not reported to the facilities. TBAs were encouraged to report births and delivery outcomes but the mechanism is not working yet as the distance to travel to go to nearest facility is far and no travel expenses are reimbursed by government.

There is limited involvement of private sector in health care delivery. There are 3 private for profit facilities in the district which are located in Mererani but they are also providing same services like other government dispensaries and health centres. Based on my personal experience there is no system or mechanism exists to contract private services in health care setting and during my tenure the DHMT never contracted private services.

The DHMT has to meet certain criteria to avail the donor funds and the DHMT is not well equipped to prepare timely plans and to submit accurate accounting information to the central government each quarter to receive the funds for next quarter (Brown A, et *al*, 2001).The project did not trained DHMT on financial and accounting procedures as this falls outside the planned project objectives.

My personal observation is that the communication between DHMT and community is adequate and DHMT members approachable and are open to listen from the community members. Generally the community bring their issues to the notice of the local councillor where they will be discussed during the council meetings every month.

Facility Level

In a study (Milga G.R., 2003) it has been found that even if the DMOs are given financial autonomy the health care delivery may not improve unless the autonomy reaches to the facility level which could be applicable to Simanjiro situation also. Health centres and dispensaries have no control on what medicine and supplies they buy. They are dependent upon district for the supplies (Milga G.R., 2003). Locally dispensaries and health centres are not authorized to make purchases. is possible that staff could be transferred without local manager's wishes as the staffs has contractual agreement with District council.

Usually facility (health centre, dispensary) staff has good communication and links with the community as they live within the local communities. The communication from DHMT to facilities is hampered by delays and lack of communication facilities.

3.1.8 Structural capacity

DHMT

There is schedule for routine council meetings where an intersectoral discussion occurs where all the departments are present. DHMT meets every Monday and minutes are recorded during the monthly meetings (Project annual report, 2006). There is official system of accountability where individuals are called for non performance. The annual Council Comprehensive Health Plan is fed into Council Development Plan.

The quarterly meeting with councillors discusses the issues brought up community on various issues including the health. During these meetings DHMT has to provide clarifications to the councillors for all health related matters.

Facility level

Facility management committees exist at all 33 facilities but only 12 are actively functional (Internal evaluation report, 2007) due to the fact that the members moved to another locality or some other reason. The village health committee which includes village chairman were established in 21 villages out of 43 villages to make decisions locally on health related problems (Internal evaluation report, 2007).

At the dispensary level there is no visible hierarchy, hence when it comes to non performance it is about the team and not about individuals. The

record keeping system is not good as everything is done manually and storage facilities are not adequate at dispensary level. It is common that the older records are eaten by rats and mites (Personal observation).

3.1.9 Role capacity

DHMT

The authority/capacity of individual departments in DHMT to make decisions is limited as the department heads are either not qualified or too dependent on DMO (Often for decisions related to finances). In some cases just the authority is delegated to make decisions without allocating the funds such as for village health committees.

DHMT as a team has been given authority to make technical decisions about the health in the district. However district council often interferes with the use of cars which in turn affects the scheduled mobile clinics and supportive supervision. Though the DHMT has full control over basket funds and block grants there are delays in getting the approvals from the council.

DMO is involved where the staff appointments are done by local council.

Facility level

At the facility level the staffs has authority over community health fund as they are part of the facility committees. The staffs at facilities are responsible for their own schedules for various activities like community outreach etc. However they have no authority over staff appointments.

3.2 Factors influencing the Capacity of DHMT outside of DHS

3.2.1 Cultural Factors:

My experience tells that health workers from non Maasai community are not very welcomed in the district. Councillors of local government prefer to have a Maasai as the head of DHMT rather than an outside non Maasai.

3.2.3 Political Factors

Politically Tanzania is a stable country which has conducive environment for long term capacity building and health system strengthening programs.

The issues of nepotism and favouritism like sending the staffs for trainings have an effect on overall functioning of the DHMT. Some staff receive enormous support from councillors because either they are relatives or belongs to same tribe which makes them less accountable.

Chapter 4: Simanjiro Capacity Building Project

4.1 Capacity building of DHMT by project

The approach to this chapter is to discuss the contribution by project activities implemented to reach the end situation discussed in chapter 3.

To address the various gaps found in the DHMT capacity during needs assessment (2000), project planned to strengthen the existing systems by training in General management, HMIS, Indent system and Supportive supervision etc.

The main objective of the project to improve the MCH services in the district through building the DHMT capacity. The two main expected outcomes were to improve the immunization coverage to 80% and ANC service coverage to 90%.

4.2 Approaches

A mixture of different approaches was used during the project to achieve the planned outcomes including placing the experts (health trainers) with in DHMT. Existing tools for supportive supervision and HMIS system were adopted to suit the local needs and equipments were provided to facilities. The health trainers supported DHMT in day to day activities through a process of mentoring and provided technical advice while participating in all planning meetings. The health trainers were part of the supportive supervision team and provided on job training for the facility staff.

4.3 What has been done to address the problems in the district?

The program specifically focused on improving management capacity of DHMT and operational systems, evidence based planning, effective resource allocation, establishing and strengthening of community based structures etc (Final evaluation report, 2007). The base line survey did not included capacity and performance related indicators to measure the outcome at the end of the project. The final evaluation was difficult as there were no baseline indicators to measure the capacity of DHMT and facility staff. Hence the project was evaluated at output level by comparing them with planned objectives like number of trainings conducted and number of mobile clinics supported etc.

Skill share International recruited volunteer experts called Health Trainers with variety of skills (doctors, nurses, community health workers, management specialists etc) to facilitate the project activities (Project annual report, 2004).

The project focussed on strengthening of existing systems by training such as introduction of training DHMT and facility staff on routine management, HMIS, Indent system, tools for planning, health needs

assessment, financial management, supportive supervision and many other inputs were provided informally. We also focussed on building the community capacity simultaneously by establishing village health committees and training of Traditional Birth Attendants etc. All above initiatives are accompanied by leadership and management training to develop knowledge and skills to adapt and use the tools and systems. In terms of capacity building the project looked beyond individuals and influenced a variety of external factors/stakeholders contributing to an enabling environment.

4.3.1 Performance capacity

DHMT

The project did not provided any direct budget support for DHMT instead it supported the activities that are mutually agreed upon like mobile clinics, school health program, community health planning and financing, IMCI and trainings for DHMT capacity building.

Three vehicles were bought by the project to facilitate the transport for the DHMT. These cars helped DHMT to increase the frequency of supportive supervision and supplies as earlier one of the reason for lack of supportive supervision was non availability of vehicles. The cars also helped in improving the coverage of outreach services. A resource centre was established with 250 books at the DHMT office with an intention to build the knowledge on various latest medical and clinical issues.

Facility level

Out of 980 Traditional Birth attendants 106 were (TBAs) trained on safe delivery practices. The trained Traditional Birth Attendants were supplied with 106 delivery kits to ensure the safe and clean home deliveries. The supplies were replenished on a regular basis from DMOs office upon the request from the respective health facility where TBA was registered. No study was done to know the effectiveness of TBA program.

Schools which are 10 km away from nearest health facility were (40 out of 56 schools) supplied with first aid kits with the first aid materials and basic medications. Teachers from the schools were trained to use the kits as well as to maintain the school medical records. The program was successful in reducing the dropout rates and improving the attendance rates (Project annual report, 2006).

Four refrigerators were supplied to the remote primary health care centres to improve the vaccination coverage. All 3 mobile clinic vehicles were equipped with clinical equipment such as weight scale, stethoscope,

thermometer, foetal heart monitor, rubber sheets, speculums, and other items.

4.3.2 Personal capacity

DHMT

Number of trainings were supported by the project apart from direct on job trainings, coaching and mentoring to DHMT. The project did not provided any financial incentives to increase motivation and performance of staff. It indirectly contributed towards them through trainings and other activities. Details about trainings are mentioned in annex 6.

The trainings which match with project priorities were planned in consultation with DHMT. DMO was the final authority to approve the plans.The sessions prepared by health trainers along with respective DHMT member. Usually the participants were nominated by DHMT based on the training needs assessment report.

Facility level

The project worked to improve the skills, knowledge through various ways. The health trainers took part in the planning process, supportive supervision, reporting, monitoring, coordination meetings through providing advice and mentoring support to the staff. For supportive supervision we worked to improve the tools, schedules and feedback mechanism to the peripheral staff although the number of visits (approximately 60% of total planned visits) is disappointing. The health trainers were given a status of co opted DHMT members which helped them to work hand in hand with staff.

4.3.3 Workload capacity

DHMT

The health trainers helped DHMT to review the existing job descriptions and to develop new job descriptions according to the local needs. There was a formal system of annual performance appraisal where health trainers were not involved in the mechanism. The DHMT was appraised annually by Regional Health Management Team (RHMT) and peripheral staff was appraised by DHMT but not always against the job descriptions. The District Health Service Board (DHSB) was formed in June, 2006 which is headed by a nurse. Her involvement in appraising the DHMT and facility staff was debate as before becoming chairwomen of the board she was working in a health facility.

Facility level

The health trainers were placed in Magadini dispensary and Naberera health centre were supporting the facility staff in routine work like attending the patients and deliveries. In the project document no activities were planned to reduce the work load on staff and no baseline data available on workload.

4.3.4 Supervisory capacity

DHMT

The project did not contributed to improve administrative reporting and monitoring at DHMT level. Technical support was provided in collating, analyzing and disseminating the HMIS data. As far as DHMT is concerned the sanctions and incentives mechanism implemented by Ministry of Health through RHMT. The district council has limited control over hiring and firing of DHMT as it is centrally done by MoH.

Facility level

The health trainers along with DHMT developed reporting formats for supportive supervision, TBAs, village health committees and school health program. The project did not contribute to the area of incentives and sanctions. However according to my understanding and informal communication with district officials, the DHMT has limited scope for implementing the sanctions and incentives due to the fear of losing the staff.

4.3.5 Facility capacity

No inputs were provided either at DHMT or facility level.

4.3.6 Support service capacity

No inputs were provided either at DHMT or facility level

4.3.7 Systems capacity

DHMT

The HMIS was one of the focus areas for project. All the DHMT staffs were trained on collecting, analysing and disseminating to different stakeholders. To make improve the supply chain and purchases the DHMT were trained on indent system twice by project. The results were the data is being used for planning and reporting purposes.

The health trainers worked to establish links with all the NGOs in the district. The district NGOs forum was established and it was agreed that the NGOs will have a common MoU with local government which was not materialized due to lack of finances (Project annual report, 2006). Although quarterly meetings were planned in CCHP as not many NGOs (15 people were present during two meetings) are attending them the meetings were stopped. The local government was unwilling to give a legal status to the NGO forum which affected the whole process of establishing sufficient links with NGOs.

The project did not involve in administrative functions of DHMT like staff recruitment, transfers and other performance related matters.

Facility level

Clinical Officers from 21 dispensaries (providing ANC services), 3 health centres and private facilities were trained for HMIS (Annex 7). The results were the routine facility data being made available at the district level although the quality and reliability are still a problem. Although no evaluation was done, it is possible that the trainings provided by the project may not adequate as the staffs have to fill 13 different kinds of forms every month. However the training alone may not be the solution unless the staffs at the facilities realize the importance of HMIS.

4.3.8 Structural capacity

No contribution by the project at both DHMT and Facility levels.

4.3.9 Role capacity

DHMT

The project established coordination committees between different departments at district level and convened meetings on regular basis for a better coordination of plans and activities. One such committee is school health program coordination committee at district level with representatives from health and education departments.

Facility level

There were no direct contributions by the project.

Community level

The project established 21 village health committees (out of 43 villages) and trained them in community health planning for twice 3 days each (Project annual report, 2006). Each committee is headed by the village

chairman and consisting 8 members. They have been encouraged to participate in the planning process by sending their annual plans to the DHMT.

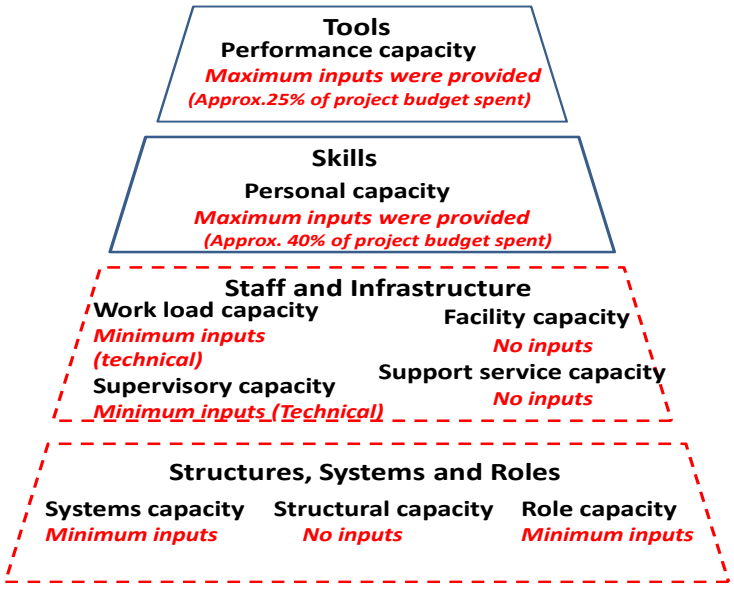
According the National School Health Program guidelines the committees were established in 20 schools (out of 56 schools) with 6 members in each committee which includes parents and teachers and village chairman. The committees were trained for 1 day and supervised as part of supportive supervision process (Project annual report, 2006). The committees main responsibility is to run the mid day meal program.

However these committees were given responsibilities and not the authority over the finances which limited their involvement in making the decisions.

4.3.10 Summary of inputs

The below diagram summarizes that the project mainly focussed on improving the tools and skills of DHMT and other health staff. No direct inputs were provided to improve the support services capacity, facility capacity and structural capacity of DHMT.

Figure 8: Suboptimal capacity building by project



Inputs by project (Adopted Potter & Brough model, 2004)

On the whole the project implemented most of its activities in areas of easy and more technical rather than harder to change socio cultural

aspects. This is partly due to the fact that the scope of the project is limited.

The strong points of the project:

- Placing the health trainers within the DHMT and DMO being the in charge of the project.
- Improving the supply side (DHMT & Facility staff) capacity and demand side (Community) capacity simultaneously.
- Project design was not rigid and did not limit itself to planned activities alone.
- The focus was on building the skills of the staff on critical systems like HMIS, Indent system and other management systems
- Leadership development given adequate emphasis by training the head of DHMT twice
- Using various training methods like mentoring and coaching formally informally were proved effective.

Weak points:

- Indicators to measure the capacity were not institutionalized, hence monitoring and evaluation became difficult.
- The capacity building term was not clear to the DHMT and health trainers (Personal observation).
- Base line survey was not comprehensive did not included all the components of capacity building
- Sustainability and ownership was not addressed from the beginning of the project

4.4 What has been achieved?

In short term the value of the capacity building programs is difficult to assess unless a deliberate effort is made to detect it by institutionalizing the indicators during the program planning process (Hawe P. *et al*, 1997).There were various other stakeholders who were implementing the similar programs. Hence the achievements solely cannot be attributed to the project. However what can be said is that:

1. Improved immunization coverage of all antigens from 58% to 85% (Project final evaluation report, 2007 & CCHP,2007).
2. Better systems for supportive supervision, planning, indent and outreach etc.
3. Improved leadership and management skills: The function of DHMT as a team now improved than before and they hold regular meetings with agendas and records minutes .This has helped in better delegation of tasks among DHMTs members which means a step towards improvement in service delivery through shared

responsibilities. An indication of this success is regular timely production of quarterly technical reports for the council comprehensive health plans (Project final evaluation report, 2007).

4. The establishment and training of 21 village health committees to improved the ownership and laid foundations for launching community health fund. The plans from village committees are included in the CCHP.
5. Improved Ante Natal Coverage from 30% to 78% (Project final evaluation report, 2007).
6. School health program contributed to reduce the dropout rates in and improved attendance rates in Lendanai (12%) and Londrekes (8%)(Project final evaluation report, 2007).

During the life of the project, it has to engage in implementation of few unplanned activities like Cholera prevention, school health program, Radio program on health education etc. The health trainers moved from facilitators' role to an implementators role over the time which raised concerns about the sustainability of the project.

Table 3: Comparison of capacity before and after

Capacity component	Before	After
Performance	Lack of vehicles limited the movement of DHMT.TBAs were not aware of safe delivery practices and tools. No first facilities in the schools. No resource centre for DHMT	3 cars for better transport,106 TBA Kits,40 First aid kits for schools,4 Fridges, Equipment for mobile clinics, establishment of resource centre
Personal	Lack of skills in various technical and management areas	16 Trainings were provided to build the skills and knowledge of staff
Workload	Job descriptions were not practicable	Contributed to review the job descriptions and modify
Supervisory	Supportive supervision was on ad hoc basis, no feed back to health facilities	Contributed to increased number of supportive supervision visits. Check lists, action plans made available.
Facility	N/A	No inputs
Support services	N/A	No inputs
Systems	Weak HMIS	Improved HMIS. Use of data for planning.
Structural	N/A	No inputs
Role	No village health committees and school health committees	21 Village health committees,20 school health committees established

Chapter 5: Case Studies from Other Countries

In this chapter case studies from elsewhere were identified and discussed. An extensive literature search yielded limited case studies about DHMT capacity building. Hence, I had a limited choice to select the case studies. The case studies were selected on the basis of relevance and target group. These experiences will be put into perspective of Simanjiro district, Tanzania. Discussion will be done if these examples will be applicable in the district.

Typically the driving concept of all these case studies differs from each other depending upon on the kind of results expected. In TEHIP, Tanzania project the concept is that the better health outcomes can be achieved by improving the capacity of DHMT to implement evidence based health interventions considering the local burden of disease. In the Gambia project (Conn CP, 1996) the concept is effective DHMTs are capable to plan and can improve the efficiency in service delivery. Where as in Latin American project (Diaz- Monsalve S, 2004) the concept is that equipping the district health managers with knowledge and skills to use management performance concepts and tools at the job site will make them better managers which in turn will yield better health outcomes. The summary of case studies is mentioned in Table 4.The table 5 is an application of Potter and Brough model for these case studies which helps to understand them.

5.1 Tanzania Essential Health Interventions Project (TEHIP) (Savigny *et al*,2008)

Collaboration between Tanzania's Ministry of Health and Canada's International Development Research Centre (IDRC), TEHIP was established to test innovations in planning, priority setting, and resource allocation at the district level, in the context of the reform and decentralisation of Tanzania's health care system. In two rural districts, Rufiji and Morogoro, TEHIP was implemented.

5.2 Strengthening Health Management: Experience of district teams in Gambia (Conn CP, 1996)

The main aim of project was to improve the quality of health care service delivery through better management practices within the context of decentralization. The objectives were to improve district team management skills particularly in the areas of planning, supportive supervision, teamwork, provision of on job and in service training, and coordination; to improve the resources management; and to increase the awareness of DHMT problems among the policy makers at national level.

5.3 The impact of health managemnt training programs in Latin America on job performance (Diaz- Monsalve S, 2004)

This study was done in Mexico, Columbia and El Salavdor to determine the effect of management training program on the job performance of health managers. A quasi-experimental study design was used with intervention (85 district health managers) and control group (71 district health managers) from 3 countries. After a baseline study the program was implemented a period of 18 months (which includes 5 day trainings and series of practical tasks at work places) the outcome in terms of improved job performance among the district level health managers.

Table 4: Summary of case studies			
Project	**Hypothesis**	**Major activities**	**Outputs**
TEHIP, Tanzania (Savigny *etal*,2008)	There would be significant health gains, if essential health interventions are planned based on the analysis of local burden of disease and allocation of resources are done according to prioritized interventions topped with small amounts of additional funds	Community based disease burden analysis. Training of DHMT on planning management and supportive supervision. Provision of additional funds(US$2per capita)	Improved planning-Evidence based Improved supportive supervision- Eg: Supervisors directly observed patient care Improved supply chain management- Eg timely delivery of equipment, drugs etc Improved management and problem solving skills among DHMT Improved quality of care (George L.Dorros,2006)
Management strengthening project, Gambia (Conn CP,1996)	1.The management skills (Planning, teamwork, supportive supervision, coordination etc) will improve among health teams if they function as decentralized management units at district level 2. The delivery of primary health care can be improved by better resource management and by increasing the awareness about district health management problems at	Introduction of 6 month planning cycle based on the analysis of health services data Lobbying at the national level to appoint additional staff based on the need Development of framework for supportive supervision with an annual training week for facility staff. Recruitment of Regional Health managers Introduction of new transport mechanism with weekly utilization plans	As a result of empowerment staff motivation levels are increased Improved coordination for supportive supervision rather than fragmented individual actions Improved self confidence and assertiveness among the team members Improved skills of problem analysis Better use of service delivery data to address the local problems

	national level.		
Mexico, El Salvador, Columbia(Diaz-monslave,2004)	This is a quasi experimental stud with a hypothesis that the performance of health managers would significantly improve if modified adult learning methods along with lessons from best practices in performance is used during the trainings and the same thing is reinforced at the work place by senior health managers	Training was provided for 18 months for district health managers with an objective to improve the knowledge and management skills with an expected outcome of better job performance. The topics included planning based on local needs, monitoring & evaluation, supply chain management, HMIS, Quality control, resource management, program management, crisis management and community involvement.	The knowledge of management tools and concepts is increased Application of improved management skills and competencies to achieve key management functions at work place However long term outcomes of these newly acquired management skills is unknown

Table 5: Inputs by different projects to 9 capacity components according to Potter & Brough model

Project	Performance capacity	Personal capacity	Workload capacity	Supervisory capacity	Facility capacity	Support services capacity	Systems capacity	Structural capacity	Role capacity
TEHIP, Tanzania	✓	✓	X	✓	✓	X	✓	X	✓
Management Strengthening project, Gambia	✓	✓	✓	✓	✓	X	X	X	X
Impact of health-management training programs, Latin America	✓	✓		✓	X	X	X	X	X
Simanjiro Project, Tanzania	✓	✓	✓	✓	X	X	✓	X	✓

Chapter 6: Discussion, Conclusions and Recommendations

6.1 Discussion

The definitions of capacity and approaches are not standardized in the literature hence the understanding and application differs. However the capacity development term seems to be more appropriate and acceptable in the field of international development.

Analysing the district situation the DHMT has various difficulties in delivering the basic health services to the population of Simanjiro. The district lacks the adequate financial resources, infrastructure, qualified staff in adequate numbers, district hospital and laboratory facilities and this is compounded by the large size of the district and nomadic life style of the people. However the district has started to implement community health fund which could provide adequate sustainable resources at facility level. After all the trainings by the project the HMIS still needs attention to improve the accuracy and reliability. The district designated hospital at Orkesumet may be able to provide referral services but the coverage could be limited as it is far away from the major towns like Mererani.

The project contributed to improve the ANC coverage and immunization coverage in the district. It facilitated the DHMT work by providing the vehicles, equipment, materials and additional human resources in the form of health trainers. It addressed the issues to an extent, related to HMIS, Indent system, school health, TBAs, routine management and leadership. However still a lot can be done and some areas like systems and structures of Potter and Brough model are outside the scope of the project.

From the case studies various issues can be discussed. None of the case studies addressed all nine components of Potter and Brough model. From table 5 all the projects addressed the areas of performance capacity, personal capacity, supervisory capacity and none of them addressed the areas of support services capacity and structural capacity. This gives an indication that the programs are designed with a scope to address the issues which are more easy and technical achievable in short duration. At the same time one should not forget that these case studies might have provided some inputs into all the components of capacity pyramid but may not mentioned explicitly in the article. Compared to other case studies Simanjiro project could able to address at least 6 areas of capacity pyramid. However, in some instances the project was unable address all the issues within a subcomponent. For example although the project addressed the role capacity by establishing community health structures it did not directly worked with other elements like staff appointments and money.

The TEHIP project is applicable and feasible in the context of Simanjiro district for a numerous reasons. Some of them are: that the project simulates country and contextual needs district. The disease burden estimated based on community based research and data collection. Similarly in Simanjiro district the facility based data doesn't give the real picture of disease burden as many of the deaths occur in the community which are not reported to the facilities. So a community level data collection and analysis is essential in the district. The success of TEHIP intervention has attracted national level interest and now it is taken up by the MoH, Tanzania which is now planning to expand throughout the country by allocating extra resources.

In contrast to the above, given the large size of Simanjiro district with limited infrastructure the similar coverage may not be feasible. Accordingly building static health facilities for nomadic population who are on the move constantly with their cattle is not effective in improving the coverage of services.

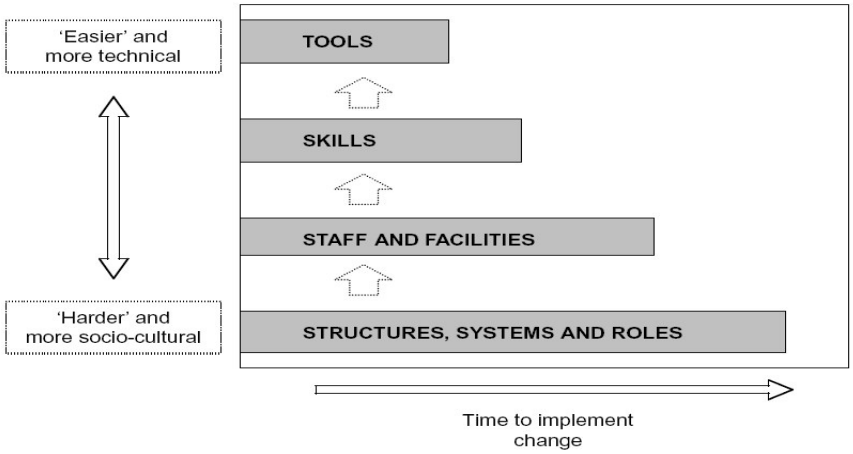
The experiences from management strengthening project, Gambia makes it relevant and applicable in situations like Simanjiro district. The better management skills of DHMT are important in any context to improve the quality of primary health care services. The decentralization in Tanzania devoluted many responsibilities to the local government authorities and particularly to DHMTs when it comes to health, which makes the management more important. The project proved that improving the health planning and problem analysis skills will contribute to the better use of resources which in turn will improve the quality and coverage of services. As discussed earlier in the problem statement, Simanjiro district also has the similar situation when it comes to low staff motivation levels particularly in the peripheries. The case study is also relevant for the district as it did not received the adequate attention from the central authorities when it comes to resource allocation.

However, this intervention didn't considered the wider infrastructure and environmental conditions. Just by improving the DHMT management capacity it may not be possible to achieve the improvements in quality of health care delivery as at the dispensary level better infrastructure, regular adequate supplies, proper implementation of systems are needed. One has to look into the community (demand side) and facility capacity aspects simultaneously while building the management capacity of DHMT. Simanjiro lacks infrastructure at the peripheral facilities which limits the application of this case study.

The Latin American study purely focussed on building the management skills through an 18 month training program. The intervention would yield fantastic results if the non performance of the staff is only due to lack of management skills. The intervention did not address the other issues

which enables the individuals and organization to function. However the effectiveness of this program would be limited as the trained individuals needs support from tools, systems, structures and support services according to Potter and Brough model. Only skills building may not be sustainable unless other systemic issues addressed simultaneously by same or other interventions.

Figure 9: Complexity/Time dimensions of capacity building



(Source: Potter & Brough, 2004. page 342)

Above figure explains that the capacity building interventions usually time consuming as we reach the bottom of the pyramid. Structures, systems and roles are more socio cultural and harder to change. Most of the interventions are focussing on achieving quick results rather than longer term sustainable solutions.

In summary the project attempted address the issues affecting the health of the population in Simanjiro. The approaches used to build the capacity of DHMT were successful but many other areas falls outside of the scope of the project. The case studies are applicable in Simanjiro if they were adopted to make them more comprehensive.

6.2 Conclusions

The term capacity development is more appropriate and comprehensive to use rather than capacity building.

The capacity of DHMTs to deliver the services is critically important to achieve the millennium development goals, national targets and other developmental objectives. In case of Simanjiro, adequate financial resources are important but are not sufficient to address the sustainable capacity development. Apart from enabling socio cultural political environment the district needs supportive systems, policies, procedures,

protocols and laws at all levels (national and local) to develop the capacity and to sustain it. Though the mobile clinics reaching out to the people there is no documented from the project evidence about the usefulness of these services.

The Simanjiro project accomplished the planned activities and able to contribute towards improving coverage of immunization and ANC services. However most of the activities of the project were concentrated around building the skills of the staff and provision of tools. The approaches like mentoring and coaching were useful in building the capacity of staff. The infrastructure, systems, structures at larger level did not receive much attention by the project instead the project might have assumed that they will be addressed by the local/central government. The scope of the project was also limited and the project implemented some unplanned activities due to which other activities might have suffered.

Potter and Brough model was useful in providing operational understanding of capacity building by analysing the hierarchy of capacity needs. A systematic application of capacity pyramid to DHMT will help to identify capacity short falls in each subcomponent which in turn helpful in designing the effective and accurate interventions. Fragmented efforts of capacity building projects to build will have limited impact in terms of overall outcomes and may not be sustainable as the supporting environment remains the same. The capacity development is rather complex particularly at DHMT level and time consuming. Moreover the wider external environment (cultural, political) also influences the knowledge, attitude and practices of the staff while performing their job duties.

However, Potter and Brough model does not explain much about wider political and cultural factors which may affect the capacity and functioning of individuals and organization. The model is applicable in stable political environment as having capacity won’t be adequate if there is no favourable surrounding environment.

From the TEHIP case study it was clear that the capacity of DHMT plays in important role in delivering the basic services to its population and the better capacity will lead to better performance which in turn yields in to better health of its population. The intervention like TEHIP was successful in reducing IMR and under five mortality through community based epidemiological data analysis which improved the overall planning and efficient allocation of resources. However, the results may not be sustainable unless there are concurrent efforts to build the capacity of structures and systems.

6.3 Recommendations

6.3.1 Policy level

- Government should develop a long term capacity development policy for the DHMTs and should create a separate unit at MoH level and DHMT level.
- MoH must increase the overall spending on health care according to its commitments to the international community.
- MoH should perform a workload study and analysis at all levels (dispensary and DHMT) and use the results in planning for financial and human resources in future CCHPs.
- Resource allocation formula to be reconsidered in order to give more weightage to the distance factor in district like Simanjiro
- MoH must ensure that all the vacant posts at DHMT level are filled.
- A national policy to be formulated by MoH to computerize the HMIS at district level.
- A national policy to formulated in order to give more decision making authority and responsibilities in resource allocation to the village and ward health committees.
- The TEHIP experience should be disseminated to all DHMTs and a community based disease burden analysis should be used during the planning exercise.

6.3.2 Implementation level

6.3.2. A DHMT Level

- I recommend Potter and Brough model for analysing the capacity gaps in the DHMT to design effective programs in the future. The donors must focus on building the capacity of the system at all levels and not just providing tools and equipping individuals with certain skills.
- The DHMT should ensure the regular supplies supply chain management system and keeping the buffer stock at the district level. The local government should lobby with central government for additional funding due to the special circumstances in the district.
- An action plan has to be prepared and implemented by DHMT based on training needs assessment. Apart from formal training various

other training methods like mentoring and on the job training should be emphasized.

- A study to assess the workload among the various staff categories in different facilities to be undertaken by DHMT based on which staff can be redistributed.

- The reporting systems should be computerized and the staff to be trained on using the computer at district level. A data management specialist to be employed by DHMT to manage the HMIS at district level.

- Supportive supervision by DHMT needs to focus on all weak dispensaries, whether government or NGO, and their problems. All the planned visits according to MoH guidelines have to be executed.

- The DHMT should take lead to improve the coordination among the various NGOs functioning in the health sector.

- An effort has to be made by DHMT to revive the dormant health committees by reorganizing and conducting refresher trainings. A point person to be appointed from DHMT to work with community health structures.

- DHMT should encourage education, agriculture and water and community development departments for active participation during the planning process, monitoring and evaluation. The progress to be reviewed jointly and there should be a plan to include people from other sector in the supportive supervision activities.

- A study on usefulness of mobile clinics to be conducted by DHMT based on which number of mobile clinics can be decided.

6.3.2. B Facility level

- The facilities identified with lack of basic essential equipment to be provided based either from CHF or from Basket funds.

- There should be a mechanism to shift the supplies among the facilities in case of stock out conditions.

- All the health facilities must be provided with radio calls to improve the communication.

6.3.3 Research

- Capacity building is still a grey area particularly for DHMTs in the context of decentralization. Further research is needed to study

what makes some capacity building programs successful and others not. The role of inherent capacities with in the systems and organizations could be an area of further study.

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Annexes

Annex 1: Service utilization data -2000

Type of Disease	No. of Patients	% Patients over Total Cases
Malaria	18,341	39
Pneumonia	8,223	18
URTI	6,308	14
Scabies	4,012	9
Ear diseases	2,911	6
Eye Diseases	1,642	4
Worms	1,590	3
Anaemia	1,033	2
Diarrhoea	915	2
UTI	824	2
Cholera	474	1
Measles	154	0.3
PTB	125	0.3
Schistosomiasis	114	0.2
HIV/AIDS	No statistics	No statistics
STD	No statistics	No statistics
Total	46,666	100.8

Annex 2: Staffing at DHMT Level

TABLE: DHMT Present composition-Core members

DHMT	Requirement	Available	Under Staffing	Comments
DMO	1	0	-1	
Dental Officer	1	0	-1	In charge-Not qualified
Health Officer	1	1	0	Qualified
Nursing Officer	1	1	0	Qualified
Pharmacist	1	0	-1	In charge -Not qualified
Lab. Technician	1	0	-1	In charge –Not qualified
Health Secretary	1	1	0	Qualified
Total	7	3	4	

DHMT Staffing level (Source: CCHP, 2008)

Annex 3: Staffing situation at health centers (CCHP,2008)

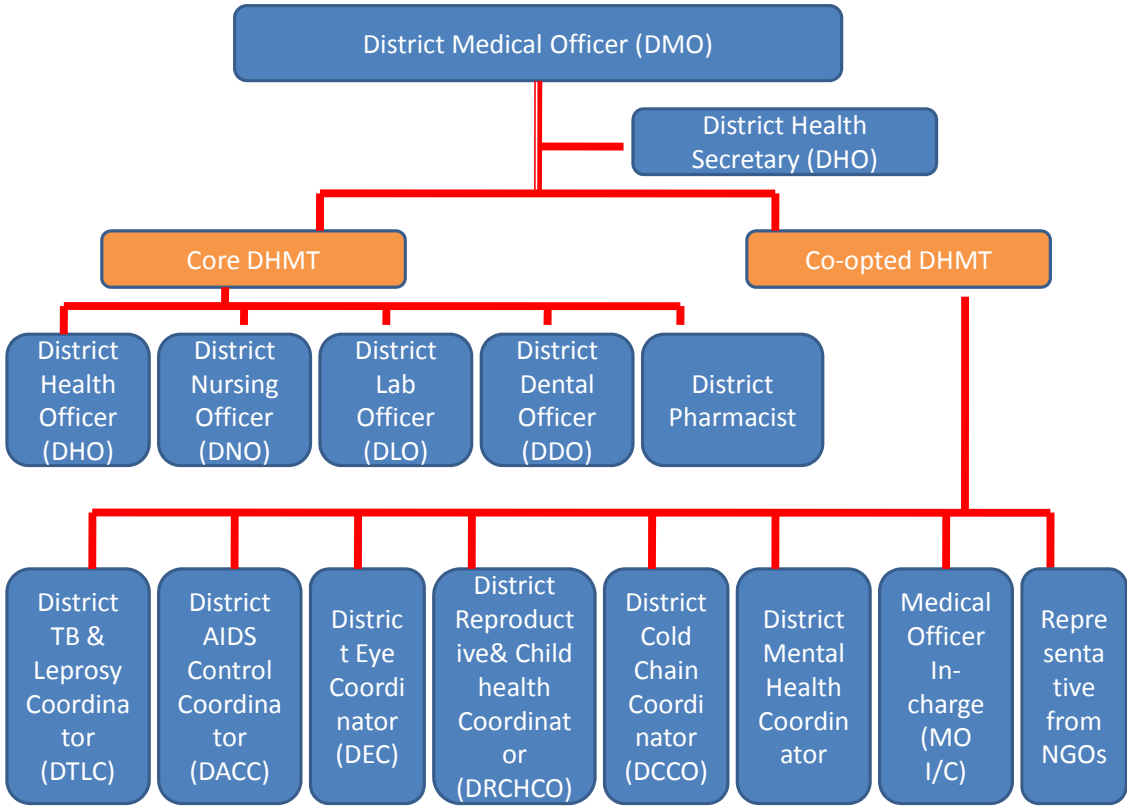
	Naberera HC			Mererani HC			Orkesumet HC		
Staff	Requirement	Available	Over/Understaffing	Requirement	Available	Over/Understaffing	Requirement	Available	Over/Understaffing
AMO	1	0	-1	1	0	-1	1	1	0
CO	3	4	**+1**	3	2	-1	3	3	0
Nursing Officer	3	0	-3	3	1	-2	3	1	-2
Nurse midwife	3	0	-3	3	1	-2	3	2	-1
PHNB	4	1	-3	4	0	-4	4	2	-2
Medical attendant	4	7	**+3**	4	2	-2	4	1	-3
Dental therapist	1	0	-1	1	0	-1	1	0	-1
Medical records	1	0	-1	1	0	-1	1	0	-1
Health Officer	1	0	-1	1	1	-1	1	1	0
Kitchen attendant	2	1	-1	2	0	0	2	0	-2
Security guard	2	2	0	2	0	-2	2	0	-2
Lab attendant	1	0	-1	1	0	-2	1	1	0
Pharmacist	1	0	-1	1	1	0	1	1	0
Driver	1	1	0	1	0	-1	1	0	-1
Total	**28**	**15**	**-16**	**27**	**08**	**-19**	**28**	**16**	**-12**

Annex 4: District Health management Team (DHMT) -Functions

The District Health Management Team is an executive body for all health related matters in the district. Its functions include (www.idrc.org):

- Reviewing development plans in the district (including private and NGOs)
- Preparation of annual health plans after consultation with all stake holders.
- Implementation of health services based on district health plans and in accordance with national rules and regulations.
- Initiation and promotion of partnership with other health providers and other sectors to enhance collaboration and partnership in the district.
- Putting in place mechanisms that enhance proper collaboration and communication at all levels of the health service.
- Strengthening Health management information to ensure effective use of data for planning and taking appropriate health interventions.
- Fostering of health system research and analysis in the district and utilization of findings to improve health status.
- Identification of training needs in the district and staff development plan for proper career development of staff.
- Establishing functional committees to enhance community participation especially at health centre, community and household level so as to encourage community participation.
- Monitoring of all health performance in the district and taking corrective action where required.
- Ensuring proper management and availability on a regular basis of resources within the budget. This includes personnel, drugs and medical supplies.
- Ensuring the support of all initiates for local mobilization of resources.

Annex 5: DHMT Organogram



(Source MoH,Tanzania)

Annex6: District Health Service Board (DHSB) Roles & Responsibilities

- To ensure that the population receives appropriate and affordable, primitive, preventive, curative and rehabilitative health care service.
- To discuss, amend health plans, budget and submit to the council for approval
- To receive analysis and approve implementation reports from the council health management team.
- To identify, mobilize and solicit financial resources council health service
- To mobilize, adequate resources that will ensure effective, efficient and equitable access to health services in district.
- To support council health management team in managing and administering health resources.
- To prepare and recommend on a council wide health plan and budget to the committee responsible for health services.
- To promote sustainable health infrastructure and reliable logistics and supply systems
- To develop, supervise and manage health services in the district.

Annex 7: Details of the trainings by project

Training Event	Participants	Outputs
Community health planning &Community financing	126 Village leaders from 21 villages	Development village health plans Understand the importance of community health fund(which was launched in 2006)
Syphilis testing &Focussed antenatal training	18 Clinical officers and 12 DHMT	Increased knowledge on syphilis testing Increased skills and knowledge on antenatal care
TBAs Trainers of Trainers course	20 ToTs	Improved knowledge and importance of safe delivery practices among TBAs
Training course on basic facility management skills for COs	20 Clinical Officers	Improved skills on routine facility management such as staff, supplies and data management.
Trachoma &Eye diseases workshop	40 School teachers	Reduction in prevalence of Trachoma among the school children
HMIS Training course	20 clinical officers 12 DHMT	Improved HMIS
	Refresher course for 20 clinical officers 12 DHMT	Improved HMIS
	18 clinical officers 16 Nurses	Improved HMIS
Indent system training	20 Clinical Officer 15 DHMT members	Increased knowledge on forecasting of drugs and vaccines.

	20 Clinical Officer 15 DHMT members	Improved supply chain system to reduce the stock out conditions.
Basic management skills for DHMT	15 DHMT members	Improved office management skills like organizing schedules, diaries and appointments. Improved communication among the DHMT members.
Cholera prevention training	Village health committees in 5 villages around Nymba ya Mungu dam area	Reduction in the Cholera out breaks among the 5 villages.
Teachers training on school health promotion	40 teachers with 20 schools	Increased knowledge on the first aid and usage of first aid kits in the schools Increased knowledge about health education in the schools
	40 teachers with 20 schools	Increased knowledge on the first aid and usage of first aid kits in the schools Increased knowledge about primary health in the schools
HIV/AIDS peer educators training(In association with LAMP)	40 peer health educators	Increased awareness in the community about HIV/AIDS Mobilize the people for VCT services
Leadership Development Programme	Dr.Kunei (DMO) attended training in South Africa 2 Times	
IMCI Training	38 Clinical officers including DHMT	Improved skills on Integrated Management of Childhood Illnesses

Annex 8: Physical State of dispensaries and population coverage

Facility Name	Type	Owner	Population Coverage (2006 projections)	Physical state
Orkesumet Gvt	Dispensary	Govt	18002	B
TAG Orkesumet	Dispensary	NGO		A
Orkesumet KKKT	Dispensary			B
Naberera	Dispensary	Govt	17222	B
Namalulu	Dispensary	Govt		A
Landani – Cairo	Dispensary	Private		B
Landani PAG	Dispensary	Private		B
Oljoro No. 5	Dispensary	Govt	13797	A
Loinorsiret	Dispensary	Govt	10198	B
Kimotorok	Dispensary	Govt		C
Narakawo	Dispensary	NGO		C
Nyumba ya Mungu	Dispensary	Govt	8737	B
Ngorika	Dispensary	Govt		A
Msitu wa Tembo	Dispensary	Govt	14299	C
Magadini	Dispensary	Govt		A
Naisinyai	Dispensary	Govt	65547	A
Shambarai KKKT	Dispensary	NGO		B
Kambi ya Chokaa KKKT	Dispensary	NGO		B
RC Mirerani	Dispensary	NGO		B
Marie Stopes	Dispensary	Private		B
AGAPE	Dispensary	Private		B
Upendo	Dispensary	Private		C
Oloirieni	Dispensary	Private		B

Cairo	Dispensary	Private		B
Good Hope	Dispensary	Private		B
Lengasit	Dispensary	Govt		B
Gunge	Dispensary	Govt	5713	B
Ruvu Remit	Dispensary	Govt		A
Loiborsoit B	Dispensary	Govt	5997	B
Ngage	Dispensary	Govt		A
Terrat	Dispensary	RC/NGO	7968	B
Total			185012	B

A= Good; B= Minor rehabilitation needed; C= Major rehabilitation needed; D= Demolition and reconstruction (Source: CCHP, 2007)

Annex 9: Details DHMT budget sources

Source Name	Actual Collected 2005/06	Allocated For 2006/07	Allocated For Year 2007/08	Allocated For year 2008/09
Block Grant (PE+OC)	348,625,600/=	412,011,861/=	687,437,281/=	670,580,300/=
LG Development funds	21,977,200/=	21,000,000/=	10,000,000/=	16,000,000/=
NTLP	1,324,000/=	1,324,000/=	1,324,000/=	0
UNICEF	6,000,000/=	6,000,000/=	6,000,000/=	0
Basket Fund	94,884,800/=	109,000,000/=	217,738,500/=	236,379,000/=
Joint Rehabilitation	209,420,000/=	178,000,000/=	0	0
HIV/AIDS (GFR 4)	0	59,000,000/=	202,000,000/=	220,000,000/=
TB(GFR 6)	0	0	0	280,217,000/=
World Vision Tanzania	81,998,000/=	48,989,157.76	120,075,000/=	32,500,000/=

ELCT – Arusha	75,796,000/=	22,460,000/=	0	0
Marie Stopes	4,200,000/=	4,800,000/=	33,959,500/=	33,565,600/=
COGI/Landanai	0	4,200,000/=	67,296,000/=	5,000,000/=
Community Health Fund	0	334,451,885/=	220,101,001/=	180,000,000/=
LAMP/SIDA	3,500,000/=	5,101,500/=	0	0
BMAF	0	17,000,000/=	18,600,000/=	18,600,000/=
Council own resources	0	0	0	4,000,000/=
Receipt in Kind	200,684,140/=	287,120,200/=	262,325,113/=	98,000,000/=
Roman Catholic	0	0	62,894,000/=	54,974,000/=
TOTAL	1,501,531,940/=	1,689,150,395/=	1,689,150,395/=	

Details of sources of funding for health (Source: CCHP, 2007)