EXAMINING COMMUNITY PARTICIPATION THROUGH PRIMARY HEALTH CARE COMMITTEES IN IMPLEMENTATION OF MALARIA CONTROL ACTIVITIES IN IRINGA MUNICIPALITY, TANZANIA.

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EXAMINING COMMUNITY PARTICIPATION AND INVOLVEMENT THROUGH PRIMARY HEALTH CARE COMMITTEES IN IMPLEMENTATION OF MALARIA CONTROL ACTIVITIES IN IRINGA MUNICIPALITY, TANZANIA.

By

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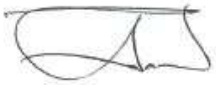
"A dissertation submitted in partial fulfillment of the requirements for the degree of Master of Arts in Health Policy and Management of the Muhimbili University of Health and Allied Sciences"

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September, 2010.

CERTIFICATION

The undersigned certify that they have read and hereby recommend for acceptance of the MUHAS a dissertation titled *"Examining community participation through primary health care committees in implementation of malaria control activities in Iringa municipality, Tanzania"* in partial fulfillment of the requirements for the degree in Master of arts in health policy and management.



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I **Mwita James Mtari Waibe,** declare that this **dissertation** is my own original work and that it has not been presented and will not be presented to any other institution/University for a similar or any other degree award.

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DEDICATION

This work is dedicated to my GOD who is always providing care, love and guardians for me.

To my family, my beloved wife MARIAM, my daughter JOINA/RHOBI, my son JONAS/MAIHAGYA for their unconditional Love and Care as they missed my presence at their tender age.

To my young brothers and sisters, BHOKE, IKWABE, JOHN, AGATHA, ZAITUNI, MAGOIGA and NSENGA who kept on their knees praying for me.

To my parents MTARI MARWA and ANJELINA MTARI MARWA who prayed for me.

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ABSTRACT

Background: Community participation is a key concept under primary health care programmes and health service delivery in many countries. However, at this stage community participation has been passive and most of the activities have been designed and planned centrally. This has lead to unattainment of Primary Health Care mission of bringing down burden of diseases through informed interventions accepted by communities that remains a big challenge todate.

Objectives: The study sought to meet the main objective of assessing community participation through Primary Health Care committees in implementation of malaria control activities in Iringa municipality.

Methods and materials: A qualitative research was carried out using semi-structured interviews for both in-depth and in focus group discussions. The information was collected through in-depth interview for Council Health Management team at district level. The focus group discussions with members of ward health committees and community. ATLAS.ti version 6.1 computer software was used in data analysis.

Results: The majority reported of inadequate community participation in processes of planning and budgeting. Even if involved in those stages many experienced that nothing is being implemented or included into the final plans. There was a report on existence of local Primary health care committees but most are defunct. People are dissatisfied with the current malaria policy intervention which gives priority to under fives and pregnant mothers alone leaving other groups in the society un-addressed.

Conclusion: Community participation has not been realized particularly in planning and decision making. Therefore, it remains pertinent for the Government to incorporate indigenous knowledge into various health programs as a tool in strengthening community participation.

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LIST OF ABBREVIATIONS

AIDS	Acquired immunodeficiency syndrome
ALU	Artemether Lumefantrine
ATLAS.ti	Computer Software for qualitative analysis
CBOs	Community based organizations
CCHP	Comprehensive Council Health Plan
CHMT	Council Health Management Team
DDT	Dichloro Diphenyl Trichloroethane
EQUINET	Regional Network for Equity in Health in East and Southern Africa
FBOs	Faith Based Organizations
FGD	Focus group discussion
HIV	Human Immunodeficiency Virus
IMC	Iringa Municipal Council
MMOH	Municipal Medical Officer of Health
MoHSW	Ministry of health and social welfare
MTEF	Medium Term Expenditure Framework
MUHAS	Muhimbili University of Health and Allied Sciences
NGO	Non Government Organizations
PHC	Primary Health Care
RCH	Reproductive Child Health
RCH CO.	Reproductive Child Health Coordinator
SHC	Street health committee
TARSC	Training and Research Support Centre-Zimbabwe
TB	Tuberculosis
WHC	Ward health committee
WHO	World Health Organization

Definition of terms

Community participation means the active involvement of people living together in some form of social organization and cohesion in the planning, operations and evaluation of a program using local, national and other resources. It is a process through which communities ultimately influence and share control over the development, local initiatives, decisions and resources of projects (e. g. malaria control) that directly affect them. In other words community participation is a process where communities merely participate in shaping government programs by *utilizing* of services and facilities, *Cooperation* with initiatives planned by outside agencies and *Involvement* in planning and managing activities [1, 2].

Community involvement is concerned with raising of awareness with ultimate involvement of individuals, families and communities in planning, budgeting, implementing and control of activities geared towards improving health and general welfare through self-reliance. Thus community involvement implies a total commitment in all those issues like planning, implementation, providing resources and evaluation of such activities [2].

Equity in health implies addressing differences in health status that are unnecessary, avoidable and unfair. These typically relate to disparities across racial groups, rural/urban status, socio-economic status, gender, age and geographical region [3].

Participatory structures in health care delivery means the Public Health Care Committees organs such as District health service boards, District health management teams, Hospital Advisory Boards, Ward health committees, Health facility management committees and Village or street health committees [4].

Participatory planning is a process by which a community undertakes to reach a given socio-economic goal by consciously diagnosing its problems and charting a course of action to resolve those problems [5, 6].

Participatory budgeting is defined as "an innovative mechanism that promotes the engagement of local government, private sector and civil society alike in the allocation of municipal resources. It is an inclusive process designed to stimulate participation of, and dialogue between, the different actors of society" **(UN-HABITAT).** On the other hand is defined as "an innovative mechanism which aims to involve citizens in the decision making process of public budgeting (**World Bank).**

Health is defined as the state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity [7].

CHAPTER ONE:

1.0. INTRODUCTION

This chapter sets forth the purpose of this dissertation, the rationale for choosing the study and generally orients the issues to be addressed in this study. Broadly, the study is concerned with examining community involvement and participation through Primary Health Care committees in implementation of malaria control interventions in districts of Tanzania. The study is in the context of PHC policy which advocates and implements numerous healthcare programmes in which community involvement through PHC committees is fragmented.

The rest of this chapter is organized chronologically as follows: the study background, problem statement and justification, literature review, objectives and significance of study.

1.1. Background Information

Health is defined by World Health Organization (WHO) as a state of complete physical, social and mental well-being, and not merely the absence of disease or infirmity [7]. Health is a resource for everyday life, not the object of living. It is a positive concept emphasizing social and personal resources as well as physical capabilities. As per Alma-Ata declaration of 1978 [8, 9] and the World Health Declaration of 1998 [10] health is a fundamental human right. The WHO constitution also states, the highest attainable standard of health as one of the fundamental rights of every human being to be enjoyed without distinction of race, religion, political belief and economic or social conditions [11].

In 1985 the countries in the WHO African Region adopted the Three-Phase African Health Development Scenario under which the district became the focus of health development. Subsequently, in 1987 the Bamako [12] Initiative was launched which catalyzed the revival of PHC and the promotion of community participation. Whereas these two actions gave renewed trust to PHC and led to some changes in health development activities, they were insufficient to bring the desired progress in achieving the Health for All. This was due to several constraints such as weak monitoring and evaluation systems, lack of intersectoral coordination in reviews, lack of indicators, inadequate human and technical resource allocations to

monitoring, reviews and inadequate information system to support monitoring and evaluation [13, 14]. On the other hand there are specific factors which have hampered the process and are distinctive to African Region. These factors include the heaviest burden of disease mainly due to communicable diseases (malaria, tuberculosis, parasitic worms, etc.), the emergence of HIV infection and AIDS which has drastically changed the epidemiological profile in many African countries [15]. Another factor is non-communicable diseases (NCD) and injuries which are emerging due to changes in life style and represent significant contributors to the disease burden [16]. The incidence of poverty in Africa is very high whereby about 45% of the population is living below the poverty line. The poverty in the Region is higher in rural areas, although urban and peri-urban poverty is an explosive problem [17].

Other obstacles to successful implementation of PHC programmes are; lack of consistency in sectoral policies, civil conflicts in the Region, and the low level of interest showed in health development as an integral part of and the precondition for socio-economic and human development [18]. However within the health sector the inhibitive factors include health professional's attitudes and resistance to change, unsatisfactory working conditions, imbalance in the distribution of personnel between urban and rural areas, brain drain, practices and customs that adversely affect health, inadequate disbursement of or even utilization of available funds and most importantly under financing of the public health sector [18].

Primary health care is based on the concept that health is a social goal whose realization requires the action of many other social and economic sectors in addition to the health sector. The promotion and protection of the health of the people is essential to sustain economic and social development and contributes to better quality of life. Nonetheless the Governments are encourage to ensure full community participation through the effective propagation of relevant information, increased literacy and the development of the necessary institutional arrangements through which individuals, families and communities can assume responsibilities for their own health and wellbeing.

Community participation in their health protection activities and programs is a key ingredient towards success of the primary health services delivery programmes and community development. One of the key recommendations of the PHC review meeting [19] in the Region

was to address challenges such as effective involvement of the community in health planning and decision-making through the establishment of functional linkages, like boards and committees between health facilities and community structures. Furthermore this involvement needs to be strengthened in areas such as problem identification, priority setting, data collection and analysis, evaluation and planning. Several models of community participation have been tried in the Region by participating countries which include the utilization of community health workers to distribute health education and promotion materials, construction of health posts or sanitation facilities, water construction, participate in distribution of drugs and defaulter tracing such as for immunization, TB therapy etc [19].

1.2. Structures and Processes of community involvement

Like most other developing countries, Tanzania has embarked on various reforms to its socio-economic development programmes, embracing the increasing role of the private sector in the economy (structural adjustment programmes) as well as reforms in the provision of social services [20]. The health reforms programme is rooted in improving efficiency, equity and resource mobilization through leadership, accountability and partnerships at all levels in the health system. A bottom-up policy implementation approach has been advocated as a way to ensure efficiency, equity and resource mobilization in addressing locally relevant priority health problems [21]. At the central level, partnerships have been created between bilateral and multi-lateral development partners for leadership and accountability. At the grassroots level the arrangement is represented by links between the governance structures in health. These include the Health facility governing committees (HFGC), the District Health Service Boards (DHSBs) and the health system at the health centre and district health service levels, respectively [22, 23].

The PHC policy in Tanzania is being implemented through various stages or levels hierarchical structure of the ministry of health and social welfare organizational framework, which comprises of the Ministry of health headquarters, regions, districts, health centre and dispensary. The Ministry of health headquarters sets policies and manages the monitoring and evaluation of policy implementation. The regional level acts as the intermediary between the

Ministries of Health headquarters and the districts where Regional Health Management Teams and Boards (RHMBs/RHMTs) have been constituted to oversee the implementation of health policies at the district levels and supervise district health management boards [23]. At the district level, the District Health Management Teams and Boards (DHMTs/DHMBs) have been constituted to oversee health activities at the district level. The district level forms the main operational unit of PHC, led by the District Medical Officer (DMO) who spearheads the DHMT. The health centre, dispensaries and village health posts support the implementation of PHC at the local level. The village health committees (VHCs), Health Centre Management Teams (HCMTs) and community health workers (CHWs) have been established. Nevertheless, the relationship of these bodies at the lower level with the overall Ministry of Health structure has been highly informal thus impeding the whole implementation of various health programs [22, 23].

1.3. Community involvement

In many countries community members are included in health management committees and boards where decisions are taken on local health development issues. Beeker *et al.* [24], Ghebreyesus *et al.* [25], Rifkin, [26] indicate that '' the use of village health workers (VHWs) and local government leaders in community mobilization and service delivery has been a practice in Tanzania in interventions like immunization programmes, health education, environmental conservation, health resource allocation, and in resource mobilization programmes such as cost recovery schemes''**[27]**. Many countries reforming their health sectors appreciate the importance of involving community members in health service assessment and priority setting through decentralization policies [28, 29]. Lessons from Cuba show that communities are seen as policy deliverers, creators of solutions and the context in which problems have to be solved [30].`

Some of the countries have developed criteria for choosing community health workers and provide different forms of incentives to retain them in the community. Others, with a few trained human resources make use of traditional healers and birth attendants to assist health

workers in community health activities for example traditional birth attendants (TBAs), home based care volunteers etc [3].

Since the Alma-Ata Declaration in 1978 [8, 9] the implementation of primary health care brought about major health gains in all countries of the world and especially in Africa. Member States prioritized PHC as the main strategy for achieving health for all reflecting them in their development of health policy documents and strategic plans. Declarations of political support for the Health for All objectives have been made at the top political levels in Member States [31]. However, the performance of national health systems proved to be inadequate to bring about desirable changes in health system development or health status of the population in the African Region which prompted health authorities and partners to look for other initiatives [32, 33].

In Tanzania community involvement in various health programs has remained excellent in projects but these are faced with challenge of scaling up and sustainability. Valuable lessons on empowerment of local communities have emerged from the Community Health Funds (CHF) management and role of facility management committees in providing a voice of community in running of health services where health care managers created an enabling environment [33].

1.4. Malaria perspective in Tanzania:

In Tanzania malaria has continued to be very important health problem and it is considered to be endemic in almost all parts of the country accounting for approximately 18 percent of the national disease burden. The government of Tanzania has developed national policies to combat malaria diseases, including efforts to disseminate mosquito bed nets and to introduce newer and more effective anti-malarial drug treatments [34].

Over 95% of the 37.4 million people in Tanzania are at risk for malaria infection. This makes Malaria a leading cause of morbidity and mortality in the country especially in children under five years. The disease claims life of more than one-third of deaths among children under the age of 5 years and for up to one-fifth of deaths among pregnant women [20]. It is also the

leading cause of death of both adults and children in Tanzania, killing about 100,000-125,000 people annually [35].

Kitua AY and Jowett M, [36] points out that malaria implicates in decreased learning capacity in children, students, and trainees in the 5–25 age range and in loss of economic productivity in the workforce age range 15–55 years. In general, $2.14 is spent on malaria control per person per year representing 39% of the country's health expenditure and 1.1% of its Gross Domestic Product respectively [36, 37].

Numerous factors interact to influence transmission levels in a given area including macro- and micro-environmental conditions, socioeconomic factors, vector abundance and parasite loads and level of compliance with malaria control policies [38]. Environmental conditions play an important role in the transmission of malaria, as the amount of stagnant or slow-moving water in an area is a strong determinant of abundance of the *Anopheles* mosquito vector [39, 40]. The presence and amount of water in an area is dependent on both macro-environmental factors such as climatic conditions (temperature and rainfall), and micro-environmental factors such as local topography, human land use and management (for example irrigation systems) [38, 41]. Environmental management is a promising technique for vector control, as it alters these micro-environmental conditions in order to decrease the available breeding sites for mosquitoes [40].

Construction of irrigation schemes and dams have been shown to dramatically increase mosquito populations in an area by creating new breeding habitat [42, 43] thereby influencing the transmission of infectious diseases including malaria which has become a problem in agricultural areas as land use changes implemented to improve crop yield [44, 45].

Environmental management has been successful in reducing the malaria burden in many different ecological, socioeconomic, and epidemiological conditions [46]. It was first used on a large scale basis in the early 1900's fell out of practice in the 1940's with the onset of DDT spraying and only began to be implemented again for malaria in the 1980's [40].

The efforts made during the past century to combat and control malaria have not been successful. The prospects of achieving the Abuja declaration [47] targets are uncertain and this has made MoH & SW through its 5-year strategic plan of 2003-2008 which advocates four

main approaches including improved case management, vector control using insecticide treated mosquito nets, prevention and control of malaria in pregnancy and epidemic preparedness, prevention and control in the fight against the disease [48]. This strategic plan was meant to incorporate the global malaria control strategies adopted in its summit on roll back malaria at the Ministerial Conference on Malaria Control in Amsterdam in 1992 [47]. These control strategies were; to provide early diagnosis and prompt treatment, to plan and implement selective and sustainable preventive measures, to detect early, contain or prevent epidemics and to reassess regularly a country's malaria situation, in particular the ecological, social and economic detriments of the disease. These technical interventions should be conducted with well-coordinated sectoral and intersectoral actions in a dynamic global environment [49].

On the otherhand, these strategies face various challenges including inadequate human, financial and material resources, inefficiency in the healthcare system that is incapable of providing quality health services and access to prompt diagnosis and treatment; lack of an effective disease surveillance system and an inefficient health education, communication mechanism as well as inadequate community involvement [48]. According to Schonfeld M. *et al.* [50], strategies for malaria control in Tanzania appears difficult and prospects for a lasting solution have in the past decade diminished with the advent of widespread anti-malarial drug resistance. Unless malaria control strategy adopts an integrated approach where community involvement is mandatory its success is far from being realized [34, 37, 51, 52].

The concept of community participation has been a cornerstone in the PHC strategy and most countries have developed guidelines on what the communities are expected to do and their commitments. They integrated community involvement in PHC implementation through the formation of structures such as Village Health Committees and Health Centre Committees to support the implementations.

Although community participation has been argued to be the core of PHC policies, it has largely remained problematic. In revisiting community participation, David *et al.* [2], highlights three main difficulties with conceptualizing and evaluating community

participation; These include the great variety of health indicators using community participation as a strategy, the complexity of the community participation and what community participation itself is understood to mean. The same authors recommend the need to develop community structures that take into account the community needs, resources, social structures and values. This is justified by a report from Burundi government where the Health Development Policy encourages communities to participate in health programms through health committees, management committees and community health workers. These include participating through micro-planning, health centre management, social mobilization of population, epidemic control, construction of health facilities and infrastructure development. There has been always a social dialogue on the results and ways of participation, quality of work done by the community members, use of collected funds etc. For example, with the participation of the communities, a program for obstetric emergences was established in six provinces targeting reduction of maternal and neonatal mortality [12].

On the other hand, Mahler, 2000 indicated that knowledge, attitude, practice and communication gap has remained significant between health providers and village-community levels [27]. This has caused ineffective implementations of district health programs and hence brought about poor uptake of health intervention programs like malaria programs by the community which eventually has an outcome of poor health services to the population at large.

1.5. Problem statement and justification

Tanzania is among countries with lowest health status in the world due to its poor socio-economic development resulting in widespread poverty, low standard of living, poor environmental conditions, burden of diseases and inadequate health services [34]. As with other developing nations Tanzania has experienced extreme resource constraints within the health care system. For much of its recent history, it has depended heavily on government budget allocations for investments in health facilities, in medical services and for the operating costs of delivering health care. These capital and operating budgets have been supported by significant doses of international assistance (bilateral and multilateral), especially in the 1960s and 1970s. However, starting with the global economic recession of the 1980s, the volume of

donor resources has substantially decreased. Exacerbating this decline has been the considerable increase in the demand for personal, curative and preventive medical care services, promotion as well as rehabilitative services by the growing population.

This called on board the concept of community participation in implementation of health programs. In attempt to address this concept the government of Tanzania embarked on various health reforms which meant to give powers to community in planning and decision making to effective implementation of health programs.

Despite community participation being advocated as a solid cornerstone of international health policies [2], most research projects, health interventions and programs has been designed at central level whereby objectives, targets and directives are determined without community inputs or ideas. Therefore community participation has been passive and activities are decided upon, designed and planned by health professionals at the top without involvement of PHC committees and communities. This theory and practice reflects the uncertainty about community participation and involvement strategies [26]. The discourse on community participation through health committees continues to be disconnected from reality because health managers and professionals have not yet resolved the tensions between top-down and bottom-up approaches [26].

Ineffective district health programs may be associated with various factors such as; inadequate community involvement and participation, lack of knowledge, attitude and practices of the PHC stakeholders (health professionals and community) have on health committees participation, complex structures/ hierarchy, vertical programs, donor influences, social cultural dimensions of participants and failure to incorporate community ideas into the district plans. However, despite of the stakeholder's knowledge and capacity, willingness to participate still their involvement remain a far reality.

In Tanzania, there are insufficient studies to give clear knowledge of the effects of inadequate community participation and involvement of PHC committees in implementation of malaria control activities. This needs due consideration because unless inadequate community participation problem is addressed, improving the health status of the population as well as

achieving Millennium Development Goals (MDGs) especially maternal and infant mortality will be difficult. The main thrust of this study, therefore, is to seek answers to the key question of the community involvement through PHC committees in perpetuating the implementation of malaria control activities in the districts of this country.

1.6.0. LITERATURE REVIEW

The literature review draws on detailed case studies evidenced from various corners of the globe in order to explore the questions regarding community involvement and participation through PHC committees in various plans as far as health system is concerned. The literature was obtained from various sources including published information e.g. books, journal abstracts and articles from internet. Others included relevant ministry documents, theory based papers and unpublished information from reports, records, research proposals, district/municipal documents, conference proceedings as well as thesis and dissertations which has contributed in enriching this study.

This study aims to develop an understanding of the community involvement and participation through PHC committees on implementation of district health programmes. This has been a challenge in developing countries in general and very specifically in the Tanzania health care system. To achieve this objective, thus understanding of the current debate in the community participation in health care delivery and discourse in developing countries in general is of great concern. In the avenue where communities are not involved, no one is willing or like to participate in something which he/she was not involved [53]. Plans and programmes designed or prepared by outside experts, irrespective of their technical soundness, cannot motivate people to participate in their implementation process.

The introduction of interventions into communities should take into account all actors, their roles, competence and experience, as well as their environment. Communities should participate at the inception and planning of new interventions whenever possible, although community participation can be introduced at any stage of an ongoing intervention. But

continuous monitoring and evaluation of community activities are critical, since adjustments and improvements to interventions can only be made by identifying strengths and weaknesses in their implementation [47, 54].

Community participation is a lengthy and dynamic process which helps communities to take greater responsibility for their health care including malaria control. Communities must attempt to move away from the unsustainable position of being mere recipients of services, resources and development interventions towards being active partners or owners of the interventions. Achieving long-term self-reliance is not a single action except that it is an ongoing process that develops through several stages all requiring time and resources [47].

Some studies indicate that community involvement and support through PHC committees are very important prerequisites for successful implementation of PHC policy. The overall responsibility for health lies squarely on individuals, families and communities themselves through participating in the planning, budgeting, implementation and control of health activities [55, 56].

1.6.1. Community participation in health service delivery

In Tanzania communities are organized within the systems of local governments where in rural areas the hierarchy is hamlet leaders who work with households in their areas and report to the village executive officer while in urban areas are organized in wards. This basic level of local government in rural and urban areas is organized with committees dealing with various social services health inclusive.

Various studies have been conducted regionally and within on how ineffective community involvement and participation through PHC committees has hampered the implementation of the health care delivery in most districts/areas. For instance; A study done [27] in Lushoto and Muheza districts in Tanga on community views on health sector reforms and their participation in priority setting indicated that the performance of health staffs and village health workers does not satisfy community needs. Also the village and ward development committees respectively were poorly functioning compared to local community participatory

priority setting structures. The conclusion was that Health Sector Reform may not meet desired health needs unless more efforts are made to enhance community participation in implementation of health sector programmes at all levels. Furthermore in Soni ward it was observed that *"though villagers were thankful that in a near future they were going to have a health centre in the area but the place where it was constructed was not the one the community liked it to be built"* [27]. The danger here is that people will not use the health facility and they will not accept the programmes brought forward. This shows how far the community involvement and participation remains an area of concern in Tanzania.

Another study [57], conducted in east and southern Africa, indicated that there is little of actual participation by communities despite that there is political will at national level on aspect of community-based health structures. In a discussion of community participation through local governance structures, Klugman, [58, 59] asserts: "Primary health care policy in many countries provides mechanisms for community participation. 'The mechanisms differ from country to country, and are influenced by each country's broader political and governance framework as well as the nature of the health service prior to the introduction of Health Service Reform" [57] but most Government documents offer varying levels of detail about structures, but little operational information, especially regarding channels of communication with the community. Furthermore, Klugman, [59] points out that, in general the degree of consultation appears to be shaped predominantly by the degree of political will that governments had regarding community involvement and the nature of consultation may be affected by power relations among communities, health workers, bureaucrats and politicians [57].

In Lesotho, for example; the Ministry of Health and Social Welfare indicated that in its National Health and Social Welfare Policy (undated) [21], is clearly stated that communities are actively encouraged and supported to participate in decision-making and planning for their health and that they are the beneficiaries of sustainable PHC programmes. However, the policy goes on to say: "While efforts have been made to transfer functions such as planning to

lower levels of administration and communities, there are no effective methods for genuine community participation in health services management. The challenge therefore is for the local authorities and MoH & SW to ensure that mechanisms for community participation in health services are developed" [57].

Furthermore the study revealed that government bureaucratic structures do not allow for a bottom-up approach as most countries still have a head office in the capital city, responsible for the policy-development framework, while the regional or district office is given the responsibility for preparing budgets and implementing Ministry policies. But also there is no documented evidence that communities are involved in budget preparation, for example, instead, the Ministry official, from the region or the district, is charged with the operational and financial decision-making of the health facility which he/she was not involved in producing it [57].

Another research conducted in Zimbabwe indicated that health staffs, leaders and communities felt that they participated at a relatively low level across many areas of health system functioning. Communities felt to have little or no role in deciding on how budgets are used or implementing and/or in monitoring health service quality. This was attributed to the lack of organized prevention and caring activities; lack of feedback, negative public attitudes towards taking responsibility for health, weak inputs from communities to health, weak consultation with communities on health services and ineffective functioning of ward and district level mechanisms for dialogue, consultation and information flow between community members and interest groups, councilors and health services providers [4]. Many local structures such as health centre committees and ward health committees had however become non functional over time, with weak access to resources and low participation by health personnel. This was seen to weaken the effective channeling and resolution of health service issues coming from the community and vice versa [4].

The Zimbabwe Health Review Commission (2000) [60], noted that; despite acceptance of participation in policy for some time, it had not been realized, particularly in relation to community participation in decision making. The constraints included poor health worker

appreciation of the value of participation, poor health worker skills in facilitating community involvement, weak methods for reorienting health workers towards community involvement, weak political commitment towards community involvement, lack of stable planning structures for joint planning between communities and health services providers (Dhlakama quoted in EQUINET /TARSC 2000) [4, 60]. These often poorly structures and somewhat adhoc relations signal a deeper problem of how participation is viewed and structured within health systems. Communities on their side seem to lack the language, information, cohesion, organizational structures and capacities for effectively engaging in these competing spheres of authority and can become disempowered and distrustful in the process [55].

Another study conducted in Mkuranga district in Tanzania, on exploring the views of villagers on the existence and functioning of local PHC committees and their responsiveness to community health needs indicated that majority of villagers didn't recognize the existence of village health workers and PHC committees at community level [27]. Therefore the concept of community involvement and participation in implementation of district programs again as per findings of this study is a far reality to deal with. How can people participate while they don't recognize the existence of the PHC committees responsible for coordination of the programs? This may have contributed to poor or ineffective implementation of district health programs in many areas of Tanzania and other developing countries. In order to ensure a sense of public trust, ownership and use of the existing health service system, community members need regular and timely feedback on health service delivery, constraints and the existing community based health organizations for them to effectively participate in implementing health development matters [61].

1.6.2. Tips on successful projects due to community participation

Despite of the above case studies it is genuine to believe that there are some areas whereby community participation in health care delivery showed effective participation in all stages from problem identification, design, planning, budgeting, implementation, monitoring and evaluation. However these case studies are also adhoc, strongly linked to NGOs, FBOs and are

weakly rooted within public health systems, and appear to lack the institutional framework and sustained investment to scale them up or support them in the longer term [27, 61].

The following case studies justifies how pertinent community participation in improving health service delivery given room to participate.

An evidence of effective community participation was launched in Kenya by 1997 where a pilot project in Kakamega was conducted to assess the potential of community participation in health care delivery. Experiences of the project showed that community participation was a feasible approach of formulating and implementing PHC through active involvement of communities in decision-making regarding their priorities focusing on health promotion and disease prevention.

However, by year 1986 it was evidenced that, the Ministry of health had started Community Based Health Care (CBHC) projects in 14 districts and established a Community Based Health Care unit within the Ministry to coordinate all the CBHC activities in Kenya [62]. The key to success was the incorporation and adoption of primary health care principles which emphasized among other things the bottom up approach during planning, budgeting, monitoring and evaluation of various projects, political will and commitment towards community involvement policy, availability of stable planning structures between community and health service providers, skilled people who facilitated community involvement, formulation of committees which manage procurement and expenditure leading to transparency which was a major tool to make communities easy trust the programmes and two way communication without bureaucracies [12, 63, 64].

Furthermore, in Botswana, for example, the Village Development Committee reports all development issues at traditional meetings, called kgotla. According to Serema [65], consultation takes place between the Development Officer, who works under the District Commissioner and the District Council Planning Officer, and those participating in the kgotla. Serema, [65] describes the kgotla as a forum for community discussions: where "People attend the kgotla meeting without fear or favour and they express their ideas freely. Kgotla presents a

good institution for policy making. Information takes centre stage at the kgotla as communities voice their concerns and proposals and ministries, and civil servants present and at times, defend government policies. There is two-way communications at the kgotla" [31]

Taking a case in Tanzania, Klugman [58, 59] provides an interesting example of community involvement in transportation for obstetric emergencies in the Mwanza region. An international NGO known as CARE, began the project in 1996. They conducted a baseline study in 50 villages, where there were no opportunities available for transportation during maternal health emergencies. By April 2001 it was found that 19 villages had made some progress with their plans, and one had a transport system available and some had started to provide social administrative and technical support for village health workers.

Klugman [58, 59], also points out that this example illustrates the 'increasingly common use of processes to empower communities in problem identification' and solving, building their confidence to move forward. [57]

On the other project result showed that the group coalesced and they endorsed anti-violence interventions against women and over time the initiative led to an observable shift in people's willingness to intervene against violence' [66]

Some studies indicate that many countries have made considerable effort to market PHC policy which emphasizes the community involvement and participation on health care deliveries [67]. Senegal, for example introduced a program of managing health through village-based health committees in 1992 [68]. Senegal's local health committees are based on the principles of the Bamako Initiative which include the acceleration of primary health care, defining and implementing self-financing mechanisms, encouraging social mobilization for community participation, enabling communities to be principal partners in health care development and ensuring regular supplies of essential drugs [47].

The Local health committees have been formed to manage the procurement of, and expenditure on essential drugs including antimalarial at affordable prices. The achievement from this program was that the community participation strengthened the delivery of health

services. The use of health services increased with improved availability, accessibility and community ownership in terms of managing health facilities and employing health workers was strengthened and access to drugs was improved [10, 60].

Regarding the importance of community involvement and participation in public decision making, implementation of district health programs at both the national and local level has the potential to improve the capacity of municipalities and districts [69]. This will enable to understand better the complex demands of their communities and eventually enhance coordination, transparency and accountability in action planning, budgeting, priority setting, expenditure, resource allocation, implementation, monitoring and evaluation [28].
Therefore this study seeks to meet the following objectives;

1.7.0. Study objectives:

1.7.1. Broad objective;

To assess community participation through PHC committees on implementation of malaria control activities in Iringa municipality.

1.7.2. Specific objectives;

1. To determine community awareness on malaria as their priority health problem.
2. To identify available malaria interventions and examine community perceptions on its implementation.
3. To examine the extent of involvement of communities and its committees in stages of intervention.
4. To assess community input into the district malaria control programs.
5. To determine the ways and structures by which PHC committee members use to communicate with communities on malaria control programs.
6. To examine CHMTs perception on the involvement of communities in the process of planning, budgeting and implementation of malaria interventions

CHAPTER TWO:

2.0. METHODOLOGY:

2.1. Preface

This section briefly describes the situation analysis of Iringa municipality to show the geography and its position, the political history, the current administrative system and the public and private health care services in general. Furthermore, the section presents the population size, socio-economic profile which I believe have direct impact to the delivery of health care services and hence on the community participation.

In this study I expected to find the missing link between the **community level (at grassroots), the ward level and local Government authorities and consequently inadequate community involvement and participation in health programs**. This is due to the fact that morbidities and mortalities from malaria are still high despite of efforts done by the Government and other Non-governmental Organizations running various health programs such as Global funds who inject a lot of resources in terms of finances, human as well as materials resources. These resources are directed to such programs as in fighting against malaria and other health problem like TB, HIV and AIDS in the country. Also the inadequate performance of Primary Health care committees was a prior reality since communities have been complaining through media and various gatherings with local and political leaders.

2.2. Description of the study area and location

The study was conducted in Iringa municipality located in Iringa Region. The area was chosen because of its high burden of disease despite the fact that many efforts have been made by the government, donors and other organizations including NGOs by injecting a lot of resources, other providing health care services but still the burden of disease is paramount in the region. Iringa municipality is the administrative capital of Iringa Region. The municipality is encircled by Iringa rural district and stretches along a hilltop overlooking the Ruaha River to the south, and spreads along ridges and valleys to the north. Also it is situated on a plateau that ranges from 1,500 metres to 2,500 metres above sea level.

The municipal lies along latitude 7^0 South of the Equator, and longitude 34^0 east of the Greenwich Meridian. Iringa was built during the 1890s by the German Army as a defensive base to be used against the Hehe uprising lead by Chief Mkwawa. The fortress and headquarters of Chief Mkwawa was situated in the nearby village of Kalenga in Iringa rural district.

The municipality covers an area of 162 square kilometers and has one division, 14 wards and 162 streets. The municipality has a population of 113,300 people, where 58,879 are females and 54,471 males. Out of this population children of under fives are 22,675. The population is increasing at an annual rate of 4.6 against a national average rate of 2.9 [70].

The indigenous inhabitants are the Wahehe. However, the municipality is by and large cosmopolitan even though the Wahehe are still a sizeable majority. The major economic activities of the people in the municipal are agriculture and livestock, industry and commerce. Almost 40% of the population of the municipality depends on agriculture and livestock in the fringes of Iringa municipality.

Health facilities in Iringa Municipal include Regional hospital, four health centers one being privately owned and other three are public. It has eighteen dispensaries among which eight are private; seven belong to NGOs and three for public. There are a total of thirty six both pharmacies and medical stores. The IMC has no district hospital and it uses regional hospital for such purposes. It has public and faith based voluntary counseling and testing centre for HIV and AIDS.

2.3. Study design and Populations:

The approach used in this study was a qualitative design. This approach was preferred because it enables a researcher to capture data on the perceptions of people or actors of the program from the inside and elucidate the ways people in certain grounds or settings understand, take action and manage their daily situations [71]. Silverman, [72] argues that, qualitative research is concerned with exploring people's everyday behavior. On the other hand Mukama, [29],

Miles and Huberman, [71] indicates that qualitative methods are conducted in natural settings and are characterized by the use of data in the form of words rather than numbers and that they study real world situations as they unfold naturally. This is in support to what Malterud, [73] argues that; "Qualitative methods are useful for the study of human and social experience, communication, thoughts, expectations, meaning, attitudes, and processes, especially related to interaction, relations, development, interpretation, movement, and activity - all core components of clinical knowledge. Contextual issues are better studied with these methods than with quantitative approaches" [73].

The study population included Council health management team (CHMT), Primary Health Care committees such as village or street health committee, ward health committees, street leaders and managers of private health facility as well as the heads of household. This research was expected to answer the study objectives which enable in understanding peoples and institutional behaviors and practices which in one way or another have an impact on community participation in implementation of various health programs like malaria in districts of Tanzania.

2.4. Sampling procedure and sample size

The sample size depends upon nature and size of population to be sampled and the purpose of the study [74]. In this study the purpose was to interview the council health management team, ward health committees and third group from the community/street. According to the nature of study, type of participants or committees to be involved, resources available and time schedule for undergoing this research lead to simple random selection of two wards and two streets from each ward making up a total of four streets.

The first group of informants in this study involved a purposive sample size of four (4) respondents from district health management team who were involved in in-depth interviews. This group of informants involved the Municipal Medical Officer of Health (MMOH), Municipal Reproductive Child Health Coordinator (RCH-CO), Municipal Health Officer and

Municipal Malaria Focal Person. However this group involved three men who were MMOH, Municipal Health Officer and Malaria focal person while the Reproductive child health coordinator was a female. This group was selected because of their position and responsibilities as far as malaria and involvement in decision especially during planning is concern.

The second group of participants involved the ward health committees from two selected wards of Mtwivila and Ilala. These were both male and female adult informants who participated in focus group discussions. The ward health committee comprises of about twelve to fifteen members but this depends on the size of the street and population concentration. For convenience eight to ten participants were involved in this study. The third group involved two focus groups discussion from community level in each ward that was adult male and female. In the good intention of allowing freedom of participation the groups were separated whereby male were alone and women alone. The focus groups included some members from street health committees (SHC), managers of available private health facilities, street leaders and randomly selected heads of households in their respective wards and streets. The streets and their corresponding wards in which focus group discussion were conducted included; Semkini Street near Kihesa centre which is a peri-urban area where female group participated and Kihesa kilolo street situated at periphery rural which involved male group all from Mtwivila ward. In Ilala ward the following Street were involved in the study, Kajificheni which involved female group and Lami B where male group came from.

The aim of having these focus group discussions was to try capturing the opinions pertaining to community involvement from intermediary committees who are considered as the link between district authority and community, but also the members of household as the recipient or beneficiaries of the programs. It was assumed that one focus group discussion in each street is enough to elicit the required information on community awareness, extent of involvement, available malaria interventions as well as their perception or acceptance of such programs since all are under the same municipality hence no much variation in aspect of understanding.

Therefore it was decided to have only four in-depth interviews and six focus group discussions in two wards. This was based on experiences learned during pre-testing of the data tools where the interview guide for in-depth required more time to allow more probes which were necessary in capturing the important information. In trying to maximize the responses especially to important aspect the interview took about one hour thirty minutes per one respondent to complete it. In the focus group discussion the same experience was observed.

The health centre management team from Ngome health centre situated in Kihesa ward in Iringa municipality was used in pre-testing and the discussion took about 2 hours.

The pretesting exercise was important since it succeeded to omit some questions which seemed not necessary or caused repetitions. Moreover the answers obtained from in-depth pre-testing where two CHMT members from Iringa municipality were involved showed no great differences from the questions set for them, thus this proved that there were no need for having large number of interviewee leave alone that it would not be possible given time and financial constraints, duties of CHMT members as they were in the planning session and it was difficult to find someone free in an hour. The above reasons also applied to focus groups as well, thus making six enough.

2.5. Data collection method

In this study a mixture of individual interviews (in-depth interviews) and focus group discussions (FGDs) to different categories of study population and groups were involved. The former was conducted using semi-structured interview guide which was designed to seek information, opinions of CHMT, their perception towards community participation and involvement, community inputs into district malaria control programs but also to examine the perception of CHMT on PHC committees in planning, budgeting and implementation of malaria control programs. Two research assistants were oriented on the study topic and trained on how to conduct focus group interview in collecting qualitative data.

In this study, semi structured questions for in-depth interviews and discussion guide for formal focus group discussions was employed where interviewees were asked questions to elicit their

viewpoints related to the community participation and involvement through PHC committees on implementing malaria control activities in their municipality.

Below are some of photographs taken in the field during focus group discussions from Mtwivila and Ilala wards.



Semkini street women in a focus group discussion (Mtwivila ward) (March 2010).



Mtwivila ward men in a *focus* group discussion (Kihesa kilolo street). March 2010.

2.6. Data collection tools

Pre-tested interview guide and discussion guide, tape recorder, and note books were used to collect information from respondents in both in-depth interview and focus group discussions at the district headquarter office, ward and street or community level. Discussion guides were developed for use in FGDs by individuals whereby issues relevant for each level were developed and suggested probes included for guiding the discussion where necessary.

2.7. Data processing and analysis

In qualitative research, there is no clear distinction between the data collection and data analysis as is commonly done in quantitative research [75]. Analysis and interpretation of qualitative data is a continuous process that starts in the research field involving processes of data collection, organizing, breaking into manageable units, validation and its interplay with Miles and Huberman theoretical concepts [71].

All in-depth interviews and focus group discussions were tape recorded and collected in written notes during discussion sessions. The recording of information was done in Swahili language which then followed by transcription and later translated into English which was made through thorough listening to each recorded focus discussions, interviews and verifying by comparing with transcriptions made. In trying to verify the correctness the English transcripts were compared to Swahili transcripts to see whether the information and meaning were the same. Furthermore the field notes complimented the transcribed information for the purpose of enriching it. The transcribed information was then read repeatedly and this helped in identifying the family codes and codes which then facilitated in organizing and picking up meaningful data or phrases or quotations in analysis.

Miles and Huberman (1994) [71], approach was used as it facilitates the production of core constructs from textual data through a systematic methods of coding, data reduction, display and interpretation. In this study the reduction of the data was made by putting together similar concepts after filtering the information in order to focus on the necessary concepts. The main themes were captured from the interview guides.

The discussions from this study were coded using a technique derived by Miles and Huberman [71] whereby the responses were grouped into similar ideas as explained by the respondents for in-depth interview as well as focus group discussions. The list of codes used in this analysis are community involvement, community participation, health problems, health priority, health committees, nomination of committees, communication, private sectors, performance, malaria interventions, malaria awareness, challenges and system related issues. These codes were identified from the respondent's concepts adapted to the use of ATLAS.ti version (6.1) computer software which during data analysis such processes as data coding through family codes and codes were employed [76].

2.8. Significance of the study

Sustained economic and social development is boosted with community involvement in various development issues or programs. Tanzania is among countries with low economic performance and thus need high community participation in order to at least spearhead her people's livelihood towards success [34].

This study attempts to reveal the operational modalities with regard to community participation through PHC committees especially in the stages of malaria intervention programs. The problem associated with attitude, knowledge and practices as well as perception of both communities especially the PHC committees and district managers are overlooked. Therefore the results of this study may contribute in re-examining the problem of inadequate community involvement and participation in implementation of malaria control activities within and without the municipality. Furthermore the result may help the decision makers at district level to look into community inputs or contribution into such interventions, but also to Non Governmental Organizations (NGOs), policy makers working in this area to focus on the importance of community participation and therefore put efforts to improve the situation and hence sustainability of malaria control programs which eventually lead to reduce burden of disease in the area.

2.9. Ethical Clearance and Study Limitations:

This study maintained ethical issues during the fieldwork through gaining written permission from Muhimbili University ethical review committee after which letters of introduction and request for permission was submitted to district/municipal authority who gave permission for the study to be conducted. The study population for focus groups was approached by ward executive officer who received the letter from the Municipal Director requesting him to facilitate the whole process. He organized all focus groups as per researchers plan and all discussions took place in ward headquarters where there was facilities to enable the discussion run smoothly. The respondent consent was sought and they were requested to sign the consent forms prior to conducting the discussions and the purpose of the interview/study was made clear to them and confidentiality of the information was ensured. Furthermore the interview was done under comfortable conditions. On the other hand the in depth interview for four members, the permission was sort from Municipal Medical Officer of health verbally after having got a letter from MUHAS and he informed the CHMT about this study and they also consented by each signing the consent form.

However, this study is not without its limitations despite precautions taken during its course. The use of ward executive officer (WEO) being among the subject in inviting the focus group members and arranging meeting conducted at ward headquarter offices may have influenced the responses of the participants e.g. may have influenced the responses of blaming the municipal authority and sparing their immediate boss (WEO). The purposively selected study populations of CHMT and ward health committees may not accurately represent the overall opinions and municipal populations. The way the interview guide questions were designed and applied in the field might have influenced the responses and concerns raised by the participants in some ways. The mixture of women and men in the same FGD especially the ward health committees possibly influenced the responses or non-responses on certain study questions. The respondent's expressions/comments might have been interpreted differently by the researcher during discussion of results from their actual meaning. Another limitation could be loss of the meaning during translation from Swahili to English in the course of analysis.

CHAPTER THREE

3.0. RESULTS:

In total, four in-depth interviews and six focus group discussions were conducted during this study. The focus groups were divided into ward health committee and community level which involved female and male separately. Three focus groups were held in Mtwivila ward and other three in Ilala ward all in Iringa municipality. Furthermore, one group composed of ward health committee which was mixed both men and women but the other two focus groups were separated one being females and the other males only. In general about fifty four (54) participants participated in this research, of whom 50 (93%) participated through focus group discussions while 4 (7%) participated in in-depth interview. Focus group discussions lasted between one and two hours while in depth interview took about 45 minute to an hour.

Generally, it was observed that groups composed only of females tended to develop better group dynamics than mixed ones as it is supported by other studies [77]. Considering the responses it was observed from both focus group and in-depth interview that participants responded or answered in different words or phrases the subjects under discussion despite that there were no far differences in the meaning of their statements. The extent of understanding also differed from one respondent to another. For instance the Municipal Malaria Focal Person showed more understanding on technical aspect of malaria intervention compared to Reproductive child health coordinator. Likewise the ward health committee, community members compared to CHMT members.

Community awareness on malaria:

In the FGDs the term malaria was not a new concept to majority of participants of both wards participated in this study. Majority of the respondents understand malaria as the disease caused by a parasite mosquito known as anopheles which live in ponds or in stagnant water which provide favorable environment for its breeding. Some participants from Semkini Street in Mtwivila ward said,

"Malaria is a disease which affects all groups of people and of different ages and is spread by a mosquito called anopheles" (member from street Semkini 2010).

Similarly, other participants from Kihesa kilolo and Ilala ward had the following understanding,

"Malaria according to my understanding is a disease or fever which kills and is brought by dirty water" other two participants said that

"*malaria is a disease caused by stagnant water and long grasses or bushes which habour mosquito anopheles*" and another participant from Ilala went into extent that,

"Malaria is a disease or fever caused by mosquito bite during night time and not day time; it is a bad disease which kills" (membesr from Kihesa kilolo 2010).

Major health problem:

The major health problem facing people in the municipality is malaria which ranks the first as per its high magnitude as it carries about 60% of outpatients and 40% of all inpatients (source, interviewed CHMT member). It is the one leading in morbidities and mortalities in the area. On the other hand, other health problems include HIV and AIDS, enteric fever and solid waste management. The CHMTs members pointed out that the data collected from all health facilities indicate the most affected group is children of under fives and pregnant women. This was observed in three quarter (¾) of the participants during in-depth interview at district level and FGDs as they were aware that malaria was their major health problem as some commented that,

"*Malaria is a chronic disease not only here but in all parts of the country (Tanzania)*" some had the following comments too;

"*The major health problem is malaria, this is observed in hospital records where many people complain of fever and after hospital investigation malaria is revealed, not only that but also the highly consumed medicines/drugs are ALU, therefore this indicates that the major complaints of patients visiting hospital for treatment is malaria*" (FG members from Semkini and Kajificheni streets)

Furthermore the CHMT members who were interviewed had the same opinion that malaria is the major health problem as it is indicated in outpatient and inpatients records from health facilities which show the top ten diseases and malaria is leading. They reported that,

"Malaria is costing especially in terms of medicines e.g. ALU which run out of stock! This implies the high consumption of it as most patients seem to suffer from malaria as per diagnosis from both laboratory as well as presenting clinical symptoms when visiting health facility or hospital" (Municipal Malaria focal person).

However another member from CHMT had his opinion about malaria, he argued,

"Data for malaria are not reliable since we depend much on laboratory diagnosis whereby the laboratory results are not reliable due to incompetence of laboratory personnel in diagnosing malaria parasites in the blood slide, thus sometimes data may not be accurate. This has been noticed after introduction of new technique of malaria diagnosis by using malaria rapid diagnostic test (MRDT) in all our health facilities where most cases which were presenting with fever were all labeled as malaria cases, but now the number has dropped despite that malaria remains the leading health problem" However he further commented that;

"Mainly we have two major health problems being primary and secondary. The primary health problems are those which relate direct to disease and secondary are those which are indirect one like managerial issues, administrative etc. Therefore the big health problem is malaria which leads in both morbidity and mortality rates. This is obtained from the health facility reports of in-patients and out-patients" (Municipal Medical Officer of Health).

Nonetheless, one member from Ilala ward had a different opinion and he insisted that the major health problem is not malaria, it is UKIMWI meaning HIV and AIDS and he said, *"Malaria is not a major health problem like UKIMWI, when you visit homes you find many people with lose of weight, emaciated and complaining of fever and as they go to hospital they are told to go for counseling and testing after which they are found HIV positive"* (ward health committee member-Ilala).

On the part of health priority, the national guidelines for comprehensive council health plan (CCHP) indicate reproductive child health (RCH) services as the priority area number one. In this area malaria control programs are more directed specific to pregnant mothers and children of under five, though malaria is not fully addressed. This policy has been challenged by community (participants) members that it is a bias one and it won't work out for malaria eradication or reduction in their settings. Despite of being number one health problem causing high morbidities and mortalities in the municipality, yet malaria is not a priority area. A member from district commented that,

"To my opinion I could make malaria as first priority in budgeting but also involve other stakeholders like FBOs, NGOs, CBOs and communities in understanding all measures to take in order to reduce the burden of malaria, health education on various misconceptions need be addressed adequately" (RCH-CO. commented).

Furthermore another member reported as he explained that,

"It is true that prioritizing a problem is based on the government guidelines, magnitude of the problem and resources (funds) available. In the municipality malaria is with high magnitude but is not a priority mostly due to poor policy which does not pick up malaria as a national problem, but also due to insufficient funding in malaria control activities, retrenchment of staff who was involved in environment sanitation and shortage of health officers who could work closely with community at ward levels" (MHO).

Malaria interventions:

It was observed that majority of participants knew the malaria interventions taking place in their areas some being cleaning environment, cleaning trenches and filling up holes which could retain water and become breeding sites for mosquitoes. In the FGDs other intervention were mentioned like use of ITNs that was supplied by the private sector (NGO) to all children who are under five years of age, it focused much to those families with children of age five and below. Again the voucher system special for pregnant mothers who are required to contribute Tshs 500/= to be given a net.

However, through an in-depth interview it was reported by Malaria Focal Person that;

"In our municipality the malaria interventions we have are those being advocated by the government to all district of Tanzania and this include quick diagnosis and proper treatment, supply of ITNs to under fives and pregnant mothers, IPTp where pregnant mothers are given SP and identifying the breeding sites, but the later is not implemented by the municipal due to costs implication and therefore is being done by individual people at their homes by either spraying homes or their surroundings" (Municipal Malaria Focal Person).

In one of focus group discussion, a member pointed out that, they believed that traditional medicine is more powerful than modern anti-malarial drugs as complete cure for malaria. When he was further asked how scientific is true he said,

"Myself since 1985 when I came here I have not contracted malaria and my wife. She only went to hospital when she was pregnant and given sulphadoxine pyrethamine (SP) which she even did not take. She used to take local herb which was being used in Bukoba many years ago and people were getting cured". Furthermore, community is reported to be aware of the drugs used in the treatment of malaria, as being ALU (mseto). It was also reported that before the advent of ALU people were using SP but the group members were disappointed that all these changes of drug regime from one drug to another e.g. from SP to ALU the community was not involved and they used to hear from media. This has made people have unresolved queries and therefore leading into negative perception towards effectiveness of the drugs. One member who was interviewed said;

"I didn't know anything about ALU except that I used to hear that whoever takes the drug gets some defect so I didn't like the medicine until when I went to hospital and given ALU of which for sure I took but I didn't swallow it instead I bought SP (metakelfin) from a medical store which is my favorite drug for malaria" (FG participant from Ilala).

The main reason for this negative attitude is that people were not involved or sensitized and given room to ask questions about the medicine, one participant lamented that,

"Hearing from radio is not enough because you cannot ask the radio for further explanations or the brochures are not all that is required, so community need someone rich in knowledge who can explain and remove worries of the people, things like side effects of the medicines, misconceptions and diet requirement" (Semkini street member).

One participant from Ilala ward said,

"I didn't like taking the medicine and I had never take ALU until when I went to hospital and met with doctor who explained to me about side effects and diet required, he told me that I need to take fatty foods and drinking enough water. This convinced me to start using ALU and I experienced no effects at all, and outcome based on health education or directives I got from the doctor direct" (FG member from Kajificheni).

In one of the FGDs it was revealed that all process of introducing ALU as a drug of choice for malaria, the community was not involved at all, the program was verticalised and that is why majority of the people still have a negative trust on using ALU. A participant from a focus group at Ilala ward said,

"People hesitate to accept the medicine because they are ignored; no one likes to get opinion of the people at grass root while we are the one who can make things move! Look before ALU we had SP which had a lot of side effects to users but the government used to say it is a good drug compared to chloroquine, but our neighbors in Kenya still use chloroquine why not us? He continued saying; the problem of our country (Tanzania) and especially the ministry of health they consider us as empty headed and people of periphery that is why they don't even bother to involve us in such events" Following this situation it will be difficult to have malaria programs succeeding since the community cannot have a spirit of fulfilling such programs because we feel it is not of our own origin" (Ward health committee member from Ilala).

This comment was also made by other FGDs members coming out bitterly and argued that,

"The entire process of community involvement and participation is still a reality in this municipality! We as community do not see any sense in participating in malaria control programs although it is intended to improve our health and life, because we are not involved right from the beginning! Sometimes we cannot contribute anything because we think donors have granted funds for everything" (A FG member from Lami B Ilala).

On the other hand despite that majority of participants knew ALU as drug for treating malaria, one member from Lami B Street had little information regarding the cause, mode of transmission, treatment and preventive methods of malaria. Concerning malaria treatment he managed to mentioned *flagyl (metronidazole)* as anti-malarial drug. However when he was

asked about clearing bushes including vitindi and long grasses as the way of preventing mosquito breeding sites! He strongly said,

"No! No! Don't cut down our VITINDI, from this we get ULANZI our local brew from which we enjoy drinking, selling and getting school fees for our children! He lamented that,

"In the past we were living in areas full of VITINDI but there were no malaria, why are you associating our VITINDI with malaria? You can clear other plants even maize, millet but don't do so to our VITINDI, it gives us income!"

Note; VITINDI is a Hehe local plant which they extract juice called ULANZI from it and used as local BREW.

This indicate the need of educating people more on effects of malaria, preventive measures as well as building capacity to low income earners so that they have multi sources of income as this will push the whole mission of malaria control in most areas of this nation.

Disagreement about prioritizing specific groups

During interview and focus group discussions majority of participants seemed to disagree with the current system whereby priorities are made to specific groups of people. Some respondent from both community and CHMTs complained that;

"Providing ITNs to children and pregnant mothers only is creating classes in the community and this is great bias which is not necessary, here we don't expect much in bringing down malaria in our place since malaria does not select! It affects all groups of people thus it could be worthy to provide ITNs to all and not certain groups of people" (Ilala female focus group member).

Another member from WHC Mtwivila said;

"Iam wondering how comes you prevent children and pregnant mothers who are not productive and leaving aside those who are productive (bread winners)! What would happen if they fall sick and die? Who will bring food for the children and mothers?" He continued lamenting that "to my opinion, I think malaria interventions especially ITNs and drugs for prophylaxis would be given to all people/groups and not children and pregnant women only"

He continued lamenting that personally;

"I need to be healthy as the father of the family so that I can find food for my people and other basics needs which being not healthy then it is impossible to provide care and service required" he insisted, (Focus group member from Mtwivila WHC).

Generally the major picked opinion on the side of policy is that the policy is not good as it creates classes of people in the community while malaria is a public problem which affects all people of all ages. One of the participants from Ilala ward said;

"Look the elderly are living a misery life they are not considered in any intervention at all! To my understanding the old people have limited sources of income and their immunity is also impaired or low and it cannot fight diseases, so they need to be given ITNs and if possible provided with prophylaxis as pregnant mothers do".

Insecticides treated nets (ITNS):

The participants from all wards and streets acknowledged to have heard the campaign for distribution of ITNs for under fives, though they complained that it was a program which involved only those who have children of under five in their household only and for those who had children of six were excluded. The participants reported that they are aware of voucher system which is a special intervention for pregnant mothers and one of the participants from one Focus group said that;

"I knew this when my wife become pregnant, she attended clinic and she was given a piece of paper called voucher and she went to a shop where she was told to add Tshs 500/= and she was provided with a treated net" (WHC member-Mtwivila).

However the participants commented that despite of government efforts to fight against malaria, it would have been necessary that people/community are involved from the beginning and have their opinions about their priorities in that particular time. In one of the focus group from Ilala two members said;

"We remain wondering who told them that we need mosquito nets. And especially the small one which can not fit into our beds! If they had asked us then we could have advised them about the size of our beds and the way we live in our homes. They brought us small nets which are used with rich or well off people who live in spaced rooms with a single person bed but

ours is one large bed which accommodates four to five children per bed and this need a larger net".

This point was supported by the argument given by some CHMT members that they had received complaints about the size of the nets supplied by donors that they don't fit the size of the beds used in many households, though they commented that the nets were big enough to fit in their beds but the problem was that people didn't get enough explanation on how to stretch it before fitting it.

Community perception on malaria intervention program:

In both wards the FGD participants reported that the MOHSW or government has been operating as a dictator because they do give out orders for the people to follow or accept without involving them from the beginning. This has resulted into failure of many programs because people feel like it is not theirs and it belongs to the government. However, despite of blaming the ministry the participants also blamed the district authority for being reluctant in involving people about various programs and especially malaria interventions; they said,

"There is no sensitization at all; they just force us to implement things not of our own origin" (FG member from Semkini).

The majority of participants kept on complaining that if the approach is not reviewed or changed the war against malaria will never be successful.

"They need to learn and do what is from the community at grassroots (involve stakeholders at community level) they should use bottom up approach which gives the room to community members to fully participate and have their ideas and opinions included into the plans or decision made" (Ward health committee member from Ilala).

They keep on reporting that due to fact that they are ignored by the top leaders that is why people are not satisfied with introduction of new drug for malaria treatment ALU.

"To me I still believe that all these drugs are still in TRIALS and the government is hesitating to tell us the truth! Because we had chloroquine as a drug to treat malaria but over the sudden we heard that chloroquine is no longer in use, then it came SP and announced as a drug of malaria but within a short time ALU was introduced, changing the regime of drugs

within a short interval/periods is what is making me /us to think that there is something wrong on the side of the authorities especially the MOHSW". Furthermore the participant reported that the communities would wish to see malaria programs being extended to all people, health education on how to fight malaria is intensified so that misconceptions are removed and also on aspect of ITNs they think of providing to all households but also in all boarding schools, prisons etc. Should these suggestions be fulfilled then malaria would come to an end and remain a history like other countries have done.

On the other hand the participants in the FGD commented that given all this efforts of fighting malaria but still eradicating it will still be difficult and they suggested other ways which were used during colonial era. One member said,

*"To my opinion I think ITNs only will not finish or eradicate malaria, I remember in 1950s we used to see people called '**MOSQUITO FINDERS'** visiting homes and spraying, spraying ponds and cutting long grasses and clearing bushes around places where people live and in those years we had no malaria in this places! So I think it is high time now for the municipal to pick and use that strategy of having a special team of mosquito finders who can do the job well and have a lasting solution. You know! You cannot eradicate malaria if you can't kill all mosquitoes from their breeding site".*

Community involvement and performance of PHC committees:

Giving their views on how community is involved in various malaria programs through PHC committees, the majority of the participants lamented that they have been ordered to implement such programs without their will. Three participants commented that,

"Most of the times we have been forced or ordered to participate by our executive officers on various programs like construction of schools, environmental sanitation and people have been fully involved. For those who fail to do so, there are some bylaws which subject someone into punishment like being forced to pay penalty fees or participate in doing certain activity as punishment"

Commenting about the presence of health committees at ward and street level the participants reported that the committees are there but they are not performing. They insisted that,

"Since they were formulated/put in place the committees have done nothing because they don't know their responsibilities! Just imagine we were elected in October 2009 last year till today, this is the first meeting" how do you expect a committee of this kind to perform or become responsible to the community?" they complained that neither district medical officer nor other health personnel (malaria focal person) has come to meet us (committee) informally or formally, so how do you expect these committees can work without being guided?" (Ward health committee Mtwivila).

In one of the FGD at Ilala ward pointed out that the ward health committee was formed through pressure from municipal but from the day it was formed it has not met to discuss anything until today.

"We were pressurized to form WHC and SHC by a representative from municipal but since then we have not seen any official coming to meet us! And when I got the information that we are needed here I thought may be the time for elections have approached and that is why we are remembered and people are now seeking for votes or started campaigns, always those things come with pressure at the time near elections and they cease naturally and no one comes back to see whether committees function or not. Sometimes members of this committee die, some move to other places but no one knows until the day like this where you find even members themselves do not know each other" (FG member from Kajificheni).

This complaint seems to go contrary with the information from district officers in their in-depth interview who most of them reported existence and good performance of PHC committees at ward, street and village level and that they exist in accordance to government guidelines as some said,

"PHC committees are present at level of district, ward and street. Ward committees work under municipal health board and they work with community in such activities like malaria control and other programs of the municipal. Procedures for nomination is through district medical officer giving an advertisement and who ever feels comfortable and eligible as per criteria he /she applies for such posts note guidelines are observed. The members will be working under health facilities found in the areas. The in-charge of the health facility is the

secretary of the committee and the counselor is the chairperson" (Municipal Malaria Focal Person)

Moreover another member commented that,

"I understand that at the district we have a council health board and at wards and street there are also health committees chosen by people through meeting in respective places and perhaps by voting".

When she was asked whether procedures of free elections are followed she said,

"On my own opinion I believe all procedures are followed" (Municipal RCH Coordinator).

The Municipal Medical Officer of Health (MMOH) had a different understanding about the PHC committees where he pointed out that,

"I don't think if I understand well but what I know is that the PHC committees are present at level of district where we have Council health service board (CHSB), at the ward and at community".

When he was asked the way they are elected he said

"In my understanding there are two types of committees those based at the health facility and those at wards and street. All committees are stipulated in the guideline of MOHSW particularly the qualification, procedures of nomination and the number of committee members"

On the other hand, about the community based category he said,

"Those I don't know the procedures because I am not directly responsible to them and I think ward executive officer is the one responsible" (Municipal Medical Officer Health).

Furthermore, the participants in the focus group discussion commented that the committees need to work and be responsible to the ward development committee which in its meeting they receive reports from various committees, discuss and compile and send the agreed plans to the district for final scrutiny whereby the agreed programs and available resources are included in CCHP and lastly incorporated in medium term expenditure framework (MTEF) and become a plan for the district/council for that financial year. They went on proposing that after the whole process of budgeting and planning the feedback is supposed to be made to the community.

"The community involvement has been limited by various obstacles like poor involvement and participation in the decision making bodies both at ward and district level" (FG members lamented).

Despite of the above, the community people seem to be willing to participate in malaria control plans but the problem is the municipal authority which is not showing up in fulfilling their responsibilities.

In one of the focus group discussion members pointed out that there are many challenges facing them during the time of implementing various activities as they said;

"Some of the challenges are knowledge of the people towards control measures of malaria. shortage of funds or poverty among the community people who fail to purchase a single mosquito net especially for those who are not included in those special groups of children and pregnant mothers. Another challenge is that the local authorities are not committed and they do not visit committee in order to do like on job training or listen to their complaints or problems they face or encounter while implementing various activities" (FG member from Ilala). Moreover it was reported by CHMT participants that another challenge they face is that nowadays it has been very difficult to convene meeting with communities unless they are assured of payments or sitting allowances.

Uptake of Community plans.

It was reported in a FGD that plans and budget are organized at district level and are decided there, for instance one of the member said;

"In our meeting last year in Kihesa kilolo we had a fish project in our dam, after discussion in our area we had agreed and forwarded the report of the project to the ward development committee which after critical discussion they approved the project and forwarded to the district for final decision! On our surprise nothing has been done, no feedback of what went wrong until today and our project proposal disappeared like that".

Another member from Kihesa kilolo lamented that;

"This is really very discouraging because we as community sat and identify a plan for a certain project of our own, but is not given priority in district plans. Funny enough they force

us to implement different project like contributing to construction of schools or buying desks, do you think we will be in a position to implement such vertical programs without been given room to give our opinions? We can't".

Furthermore another member commented that;

"This does not mean that we don't like contributing to construction of schools but what we are saying here is that we need to be acknowledged, we would feel ok if we are involved in all processes and this could encourage people to participate in various government programs" (Focus group member from Kihesa kilolo).

Mechanism and structures of communication or operation:

In the interview (in depth) interviewee at district level reported that the structures used in communicating with communities is through committees, meetings and internal memo or letters.

"At the district we have health board known as council health service board (CHSB) formed under the guidelines of MOHSW and its functions among others is to discuss and approve comprehensive council health plan (CCHP) and supervises its implementation, it works closely with Council Health Management Team (CHMT) which is a health technical organ which manages day to day activities concerning health" (Municipal Health Officer).

After the district, follows the ward health committee which again works in collaboration with the facility health committees in their respective areas. The last committee is that found at street level sometimes called village health committee in those rural areas where there are villages. This structure work in collaboration with other committees like security committee found in the respective wards and all report to the ward development committee under the ward executive officer.

This hierarchy or chain of command was depicted from the FGD conducted at Ilala and Mtwivila wards respectively whereby the members or participants seemed to know well the system but the only problem is that the system is inactive in that the committees are not functioning despite of their presence. One participant said,

"The system is not an issue because always these are things in files, put under shelves in big offices but the operation is quite different from what you hear and what you see in place"(Focus Group member from Ilala.)

On the other hand the participants in the focus group discussion reported that they do receive health information mostly through media (some of them who have radio or Television and time to listen to those broadcastings), rarely they receive health information from municipal authorities except when it is a national campaign like vitamin A and anti worming programs is when they see and hear the announcements.

"Sometimes we get the reported information from our ward executive who fails to explain in detail what the program really imply or expected side effect because he/she is not a technical person on health issues" (FG member from Mtwivila).

One participant lamented,

"Imagine someone who is not rich or knowledgeable in health or diseases issues; what explanation can she/he give to people? If you ask him/her about the side effects or why do some people get rashes after taking SP he/she has nothing to tell! These make people not accept the kind of programs brought by people who are not professional as our ward executive officer and street leader do. We would prefer to hear or get information direct from the 'horse's mouth' it's when we can believe and accept the program"

The problems contributed by laymen preaching on information he/she doesn't know is distortion of information and this lead to wrong information to the consumers of that information. To solve this problem one participant had the following comment;

"The municipal officials should not escape their duties or responsibilities instead they should visit us regularly or even once in two months so that we have time or opportunity to express our feelings and suggestions and get clearly where we missed or what we are not comfortable with! They should get out of their offices and serve the public, what are they doing their while we need them out here?" (Focus group member from Ilala). In addition they suggested the way to success that, training should be provided to few local individual in their setting who eventually will be useful to their people. They said,

"If people are already familiar with those who are conducting the educational campaign they will be more likely to respond positively to their programs"

CHAPTER FOUR

4.0. DISCUSSION:

Successful implementation of community involvement and participation in various projects or programes depend much on the response of the people. This is in turn influenced by various social economic and cultural aspects of their lives that may constitute major constraints to the control of the diseases in their catchments [3]. These socioeconomic and cultural factors influence the way people perceive malaria, attitude to use ITNs or take prophylaxis. This study so far attempted to explore how community involvement is being carried out through PHC committees in implementation of malaria control programs in Iringa municipality.

The study has demonstrated that the concept of community participation is still alive and being variously pursued by different organs in the health system. The government had gone a step further by introducing decentralization policy in which PHC approaches are being emphasized one being community involvement and participation. This clearly demonstrates stronger government commitments to increased community participation in health issues at local levels as decisions are trickled down to the low levels. On the other side, the findings of this study indicated that communication is crucial to community actions as it provides the community with appropriate and timely information about health programs such as malaria prevention and treatment. It is critical in bringing about behavioural change and makes people aware of them and their usefulness. It was revealed that the local authority (CHMTs), ward health committees and the community are far in contact.

Primary Health Care committees were noted in existence, but on the other hand, there were scattered reports that most were non-functional or defunct at community level. It was also noted that these health committees were not functioning as expected particularly in prioritizing people's needs such as malaria interventions in the plans. They had no contribution towards mobilization of resources, providing health education to their communities. Factors such as lack of recognition and lack of support from local health authorities may have contributed towards this failure. However, Perceptions as to how effective these PHC committees were

differed among the participants. The CHMT informants were of the view that the committees are doing well in assisting the communities in various aspects. But the majority of participants at community level were of opinion that the committees do not contribute any assistance since they are dormant, unless they are supported nothing is expected.

Among other things that appear clear at this stage of the study, are that majority of community members are aware of what is malaria and they consider it as their major health problem since the high number of outpatients and inpatients, morbidities and mortalities are due to malaria though malaria is not the priority number one in their plans the thing which wonders them. Concerning malaria interventions the community has shown dissatisfaction on the policy which favours certain group of people who are given priority; instead they certainly wish to see the interventions covering all groups in the society. This policy may have contributed to failure of most of the programs and hence affecting their sustainability. Furthermore it has been indicated that communities feel like they have been neglected or ignored as they are not involved in processes of planning and budgeting of various activities and in decision making bodies. On the other hand this study has revealed that difficulty in implementing programs may have been contributed by low knowledge the people have and low commitment of the government or local authorities on playing their part particularly in the community participation policy.

Community involvement and participation;

Community involvement and participation have been reported to be very important and a key ingredient of community development. The practice has faced a lot of challenges in its course of implementation others being ineffective community involvement in various health programs in the municipality right from inception of planning and decision making through establishment of functional linkages like boards and committees. In this study, we examined community awareness about cause, mode of transmission, symptoms, treatment, and prevention of malaria as well as knowledge of mosquito vector in communities but also its implementation through local primary health committees found in Iringa municipality.

Interestingly the results indicated that majority of the study participants from the different wards knew that malaria is a serious disease for all age groups. However, some understands that children and pregnant mothers are at high risk of contracting the disease often and they suffer more when they get malaria compared to other group of individuals. The emphasis should be to sensitize communities to why during planning and budgeting the priority focuses much to these categories of people. However it is important as the community understands that malaria affects all groups of people as this would help in a collective struggle in fighting the disease. The community active participation is mandatory since no one party can win the battle without involving the others.

Furthermore, most of the respondents seem to understand the common signs and symptoms of malaria and modern anti-malarial drugs which are used as the best treatment for malaria, though their experienced level of knowledge on effectiveness and side effects of ALU was not satisfactory as this may be due to inadequate sensitization from the government and other stakeholders. This was picked when participants blamed that the anti-malarial drugs are still under trials.

On the other hand, failure to proper sensitization has caused little information to some community members regarding the cause, mode of transmission, treatment regime as well as preventive measures taken against malaria. In some instances flagyl (metronidazole) could be mentioned as a drug of choice for malaria treatment. Nevertheless most of the participants knew that malaria is a serious disease that can attack all age groups of their population, as the finding indicated that it is not a disease of certain group of people only rather it affects all the community. This brings about a push factor for the interventions to be extended to cover all people or groups like elderly, prisoners, schools and households.

This indication is in support of a study conducted in Ethiopia on awareness of community about malaria and its treatment whereby people from rural highlands showed that they know that malaria is a killing disease and transmitted by a vector mosquito biting during night [53]. It was further reported that communities were not satisfied with extent of involvement in areas such that of problem identification, priority setting, data collection and analysis, evaluation

and planning. Evidence from other studies on community involvement and participation indicates that communities should participate at the inception and planning of new interventions whenever possible, although community participation can be introduced at any stage of an ongoing intervention. Continuous monitoring and evaluation of community activities are critical, since adjustments and improvements to interventions can only be made by identifying strengths and weaknesses in their implementation [10, 54]. Meanwhile a study conducted in Lushoto and Muheza in Tanga region Tanzania revealed the dissatisfaction of communities on the performance of ward development and village development committees [27], this support the findings from this study as the respondents show a great dissatisfaction on how PHC committees are performing.

As in one of the ward some street members revealed that they had participated in problem identification through opportunity and obstacle development (O & OD) approach but their priorities were not considered by the decision makers at all. This is a reflection of variation in involvement within the same municipality where at least some were involved while others were not.

However it is important to understand the reasons that might have contributed to the ineffective community participation at all levels of utilization, cooperation and involvement of malaria control activities in the municipality, some being; failure to incorporate preventive measures into their local actions, failure to access early and effective treatment and lack of empowerment which would have lead to both raising of responsibility and increased expectations. Many societal movements have shown that empowered communities can be powerful instruments of change, they can influence the attitudes and behaviours of people and their leaders, motivate governments, and even inspire international action [47].

On the other hand the government priorities which might not match with those suggested by the communities e.g. construction of secondary school in each ward might have contravened the priority of people in one way or another. Furthermore the shortage of human resource has been a critical one in almost many parts especially the local governments, insufficient funds which limit them in holding meetings or outreach visits. Another setback is donor oriented/ or donor notion that always donors are there to do everything and if they don't they give funds to

run such programs. This notion of dependency has complicated the all mission of community participation in various programes in accomplishing the health sector reforms. Specifically to such programes which enhance the basic health requirement to the majority.
This was revealed in other studies conducted in Mkuranga district in coastal region in Tanzania on acceptance of local primary health care committee's performance where it was indicated that people are not recognizing their existence since they don't see them as responsive to community needs [61].

Despite community participation having been accepted in policy for some time in Tanzania, it has not been completely realized, particularly in relation to participation in decision making at most of local government authorities. The major constraints as pointed out by study participants included,

1. Poor health worker appreciation of the value of participation
2. Poor health worker skills especially at district level in facilitating community involvement
3. Weak methods for re-orienting health workers towards community involvement
4. Weak political commitment towards community involvement
5. Lack of stable planning structures for joint planning between communities and health services providers at the municipality.

These constraints are in line with the findings of other studies conducted in African countries like Zimbabwe, Zambia and South Africa [4, 22, 56]

Knowledge gap about participation in policy and planning:

There are still gaps, particularly within health planning, in how to link health to wider issues of concern to communities, and in the way political and social structures work. This has lead to a number of areas where the knowledge base is weak, such as in how to engage communities on health issues and draw out their experience and knowledge, how communities manage their health concerns, how decision making takes place outside health in powerful groups and how to influence these decision making processes and how the health system itself disempowers people.

On the other hand, study findings revealed weak mechanisms for participation on how to include community priorities in health planning and linking local planning with budget and resource allocation processes as well as how to link health information and processes with those of other sectors [56]. The various measures could be applied to address such weaknesses and these may include; the use of participatory approaches like opportunity and obstacle development (O and OD) in drawing out community knowledge as well as simplified guidelines for budget analysis, health priority setting as a means of engaging communities on technical areas, conduct research on the impact of participatory mechanisms to enhance their wider application and a need for social mapping of key stakeholders and their role in decisions and resource inputs to health sectors and improving information sharing between health and other sectors, between civic groups, health worker organizations, and other related groups, to build a wider knowledge base and skills for intersectoral and participation work.

However research findings should not be kept within the health sector but shared at a wider level [55].

Primary health care committee performance:

Disappointment from the side of the community members was about the whole process and the aim of having PHC committees, this revealed that due to fact that committees are not functioning at all despite that they were formed by pressure at the ward and streets. It was also noted that formulation of committees was like fulfilling the demand of the MoH & SW and government in general but the duties and responsibilities were not known to community members but also those who were elected to become committee members. The residents could not see any difference of having or not having them since from the day they were appointed they had not held any meeting to discuss health issues and even other members of community were not aware of their existence at all.

On the other hand the poor performance of primary health care committees attributed to the difficulty into implementation or acceptance of malaria control activities in most wards and street in this municipality. This signifies that the community involvement is very important in order to improve the health status the people and their nation at large [47]. This is supported

by the fact that community based health initiatives enable the home to be the first hospital and remain to be the arms of people's health system that directly comfort the afflicted. These remain the support systems of people who are poor and live in rural areas. The community-based health initiatives serve the direct interest of those most affected while the public sector health system through support and stewardship maximizes the potential of these partnerships [47].

Despite the commitment or eagerness shown by the community people towards participation on health programs the goal has not been achieved of bringing down malaria in the municipality. This is due to various reasons like bureaucratic structures or non committed local authority leaders who don't involve the community in time of problem identification, prioritizing, planning and evaluation. Secondly the flow of external funding is also erratic and has changed the priorities of communities to interest of funders/donors as for most donors are funding HIV and TB and some part of malaria to under fives while malaria affect all people. These were also picked in a literature review of district health system a study conducted in east and southern Africa involving Zimbabwe, Zambia and Tanzania [57].

In focus group discussion the respondents revealed the desire for educational outreach to come from within the community, as opposed to having outsiders directly educating community members. It is important that the educators are seen as trustworthy, and that community members believe that the information they are being provided with is accurate. Therefore, it was suggested to conduct trainings to educate selected members of community. These community members could then sensitize people or conduct the educational programs with other members of their community to increase awareness and use of effective malaria control practices.

On the other hand, there were different information/opinions concerning the performance of PHC committees among CHMT and community members. District officers maintained that the committees are well functioning while community members decline.

Implementation of malaria control activities;

Success in implementation of any health program will depend much on extent of community involvement and participation. The local authorities especially the health managers at district should prove themselves capable of meeting the health needs of those they serve. The views of the community members are to strengthen community participation through bottom up approach in implementation of malaria programs. It is important to reconcile top down versus bottom approaches and coordination to give the better results. Malaria control activities have been seen as programs which create classes in the community and it does not consider the most needy group of population, but this can be justified as the program depend much on available resources which can't cover the all people and thus groups which seems to be vulnerable e.g. pregnant and children of under fives are given priority. This is in line with global campaign under Millennium Development Goals to reduce the infant mortality and maternal mortality rates by 2015 the agreement which Tanzania signed or accorded.

It was noted that effective interventions against malaria were present though some of the participants seemed not to be certain in various aspects concerning effectiveness of medicines and their side effects as well as the burden of diseases. Largely this may be due to various reasons including most people at risk of malaria are unaware of interventions and sometimes they are unable to afford and access them. Lack of education, information and access to effective interventions currently restricts the success of Malaria control programmes, especially among the poor rural communities. However, practice of using traditional medicines such as back and leaves of certain local trees for the treatment of malaria as well as for preventive mechanisms may have considerable negative impact on the treatment seeking behaviour of the communities in the study areas.

Apart from the above explained malaria interventions findings from this study indicate that with adequate participation, environmental management for malaria control would have a positive impact. This has been proven by other studies conducted in India and Tigray in Ethiopia to have been effective in both reducing the abundance of mosquitoes [39, 78], but

also directly lowering the incidence of malaria [46]. Though this method is often overlooked in favor of more top down control techniques, the reduction of vector abundance through community-based larval control needs to be considered mre widely as a potentially effective, sustainable component of malaria control.

CHAPTER FIVE

5.0. CONCLUSION

Following the findings of this study majority of the respondents understand the important of community involvement and participation in various programs at their areas, yet they do not participate due to the gap between the district managers, PHC committees and communities. Furthermore the finding indicates that people are aware about the existence of PHC committees except that they are dissatisfied with the performance and responsiveness. The health committee members were inadequately recognized by the majority of community members (ward residents). On the other hand malaria control activities or interventions are known to the majority of community members especially those with under fives and pregnant women who are mostly targeted by the programs, though people complained that the policy does not give positive impact to malaria problem and it creates classes of no necessity knowing that other groups like elderly are equally affected by malaria. In view of the above findings most malaria programs implemented within the municipality are not covering the entire community making its success complex. Acceptance by the community is another reality aspect since communities are not well involved or they do not participate from the point of inception in various programs. Therefore community involvement and participation remains a far reality and in order to achieving success in malaria control then the government should practically operationalize the policies in place.

5.1. Suggestions and Policy recommendations:

- Strengthening community based health workers in order to enhance community participation and review the roles of the PHC committees and ensure health problems are linked to multisectoral approach.
- Improve bottom up integrated planning with resources that can respond to such planning.
- Structures for participation should be inclusive, involving civil, elected and traditional leaders, health providers as well as addressing gender perspective. Processes within such structures should aim to encourage participation and should be made to

reorient health workers attitudes and skills but also developing community structures that take into account the community needs, resources, social structures and values.

- Policy guidelines for participation should be clearly interpreted and made available to the public to facilitate their role.
- Raise community awareness through implementation of appropriate health education for prevention and control of diseases from spreading as well as ensuring regular and adequate community sensitization on various programs and educate on misconceptions.

- To improve the functioning and responsiveness of the PHC committees through proper election of the committee members who are committed and perhaps capable on working for their communities.
- Local government authorities should build a trust to lower communities that they are not empty headed, they are supposed to trickle down the process of involvement to all communities and to other stakeholders in order to successfully implement health plans.
- Motivation should be looked into in terms of incentives, working environments etc to the local PHC committees at all levels.
- To ensure that an appropriate coordination mechanism is in place to harmonize the complementary roles of local, intermediate and central level structures, institution and other stakeholders within communities. These involve sensitization and strengthening training and supervision in implementing various health programs like new treatment regimen, improving environmental management and empowering community people.
- Further research is needed on the topic since what has emerged requires urgent attention of the policy action in order to curb malaria threats in this country and make health sector reforms sound.

CHAPTER SIX:

6.0. REFERENCES

1. World Health Organization, *Revitalizing Health Services Using the PHC Approach in the African Region. Report of the Regional Director. Regional Committee for Africa, 56th Session. AFR/RC56/12. 17 June 2006.*
2. David J, Z., Lysack L., *Revisiting Community Participation.* . Health Policy and Planning 1998. **Journal 13 (1):**: p. 1-12.
3. Guy Carrin, K.B., Harald Kristian Heggenhougen and Stella Quah,, *Health systems policy,Finance and Organization.* 2009.
4. Rene Loewenson, *Pu bl ic pa rt i ci pa ti o n in He al th s yt ems: Re po r t fr om pa rt i ci pa to r y r es ea rc h i n f ou r di s tr ic t s of Zi mb ab we wi th su pp o rt f ro m I DRC (Ca na d a) TARSC/CWGH Mon og ra p h 18/99..* 1999.
5. George Matovu, *Capacity building for participants planning and budgeting in Africa: Iniatives and strategic perspectives.* Municipal Development Partnership for Eastern and Southern Africa (MDP-ESA), 2006.
6. RENE LOEWENSON, *Public Participation in Health: Making People Matter IDS/TARSC.* EQUINET, 1999. **Working paper no 84, Sussex March 1999**
7. World Health Organization, *Macroeconomic Environment and Health, with case studies for countries in Greatest Need. Geneva: WHO.* 1993.
8. WHO/UNICEF, *Declaration of Alma-Ata. In: International Conference on Primary Health Care, Alma-Ata, USSR, Geneva, World Health Organization.* . 6-12 September 1978,.
9. WHO, *INTERNATIONAL CONFERENCE ON PRIMARY HEALTH CARE, ALMA-ATA, USSR;* http://www.who.int/hpr/docs/almaata.html.. Public health encyclopedia, 6–12 SEPTEMBER 1978;.
10. WORLD HEALTH ORGANIZATION, *The World Health Report 2000. Health Systems: Improving performance.* 2000.
11. WHO., *Constitution of World Health Organization.* 1946.

12. World HealthOrganization, *Report of the review of Primary Health Care in the African Region, Brazzaville, World Health Organization, Regional Office for Africa, 2003 (in press).* 2003.

13. Elly Engelkes, *What are the lessons from evaluating PHC projects? A personal view.* . Health Policy and Planning, 1993. **8**(1): p. 72-77.

14. Bindari, H.A., Smith DL,, *Primary Health Care Reviews. Guidelines and Methods.* . WHO Publication., 1992.

15. World Health Organization, *Regional Office for Africa.Consultation on Prevention of HIV Infection in the African Region. Brazzaville, Republic Of Congo.* – Final Report Afr/Rpa/05.1. 2005, 9-10 June 2005

16. Murry C. Lopez, A., *The Global Burden of Disease: A Comprehensive Assessment of Mortality and Disability from Diseases, injuries and risk factors in 1990 Projected to 2020.* 1999. **1**.

17. World Health Organization, *Regional Office for Africa, Brazzaville. Poverty and Health: Strategy for the African Region. AFR/RC52/11.2003.*

18. WHO, *Trends for Revitalizing the Primary Health Care Systems in the WHO African Region.* 2006.

19. World Health Organization, *A global review of Primary Health Care: Emerging messages, Geneva, (WHO/MNC/OSD/03.01).* 2003.

20. MinistryofHealth., *Annual Health Statistical Abstract. Ministry of Health and Social Welfare, Dar es Salaam, United Republic of Tanzania.* . 2006.

21. Mcwan'gi, M., *Assessing the effectiveness of health governance structures in interceding the community in ZambiaA research paper presented at the EQUINET Conference.* 2004.

22. Loewenson, R., I. Rusike and M. Zulu., *The impact of health centre committees on health equity in Zimbabwe." A research paper presented at the EQUINET Conference, on 9th June, Durban, South Africa. (contact: rene@tarsc.org).* EQUINET 2004.

23. MacwangiM, N., *Effectiveness of district health boards in interceding for the community.* EQUINET Discussion Paper Series. , 2004.

24. Beeker, C., Guenther-Grey, C. and Raj, A., *Community empowerment paradigm drift and the primary prevention of HIV/AIDS.* Social Science and Medicine,, 1998. **46**: p. 831–842.

25. Ghebreyesus TA, A.T.B.A., Witten KH, Teklehaimanot A., *Community participation in malaria control in Tigray region Ethiopia.* Acta Trop, , 1996. **61**(2): p. 145-156.

26. Rifkin, S.B., *"Paradigms lost: towards a new understanding of community participation in health programmes."* Acta Tropica,, 1996. **61**: p. 79-92.

27. Mubyazi GM, M.A., Kamugisha M, Massaga J, Mdira KY, Segeja M and Njunwa KJ, *Community views on health sectoe reform and their participation in health priority setting: Case study of Lushoto and Muheza districts, Tanzania.* Public health, 2007. **29, No 2**: p. 147-156.

28. Mubyazi, G., Hutton G. , *Understanding mechanisms for community participation in health planning, resource allocation and service delivery:results of literature review."* EQUINET Working Paper 2003. **No. 13,**.

29. Mukama, F., *"A study of health information systems at local levels in Tanzania and Mozambique, Improving the use and management of information in health districts", Master thesis, Department of Informatics, University of Oslo.* 2003.

30. Braa, J., et al., *"Participatory Health Information Systems Development in Cuba – the Challenge of Addressing Multiple Levels in a Centralized Setting ", Proceeding Participatory Design Conference 2004, Toronto, Canada, copyright 2004 ACM.*

31. WorldHealthOrganization, *Revitalizing Health Services Using the PHC Approach in the African Region. Report of the Regional Director. Regional Committee for Africa, 56th Session. AFR/RC56/12. 17 June 2006.* 2006.

32. WHO/UNICEF, *Declaration of Alma-Ata. In: International Conference on Primary Health Care, Alma-Ata, USSR, 6-12 September 1978. Geneva, World Health Organization. .* 1978.

33. WorldHealthOrganization;, *Revitalizing Health Services Using the PHC Approach in the African Region. Report of the Regional Director. Regional Committee for Africa, 56th Session. AFR/RC56/12. 17 June 2006.* 2006.

34. Ministry of Health, *Tanzania HIV/AIDS and Malaria Indicator Survey (THMIS) Report.*. 2007/2008.

35. CDC., *Fighting malaria in Tanzania.* http://www.cdc.gov/malaria/features/tanzania_pres_initiative.htm, 2005.

36. KituaA.Y, *Malaria control in the context of integrated management of childhood illness in Tanzania: the challenges ahead.* . Tanzania Hlth Res Bull, 2003. **5**: p. 1-4.

37. Leonard E. G. Mboera, E.A.M., and Andrew Y. Kitua, , *Uncertainty in Malaria Control in Tanzania: Crossroads and Challenges for Future Interventions.* The American Journal of Tropical Medicine and Hygiene, 2007. **77(6-suppl.)**: p. 112-118.

38. Patz JA, D.P., Tabor GM, Aguirre AA, Pearl M, et al., *Unhealthy landscapes: Policy recommendations on land use change and infectious disease emergence.* Environmental Health Perspectives, 2004. **112**: p. 1092-8.

39. Yasuoka J. Levins R, M.T., Spielman A,, *Community-based rice ecosystem management for suppressing vector anophelines in Sri Lanka.* Transactions of the Royal Society of Tropical Medicine and Hygiene, 2006a. **100**: p. 995-1006.

40. Ault, S.K., *Environmental management: a re-emerging vector control strategy.* American Journal of Tropical Medicine and Hygiene, 1994. **50**: p. 35-49.

41. Ijumba JN, S.F., Clarke SE, Mosha FW, Lindsay SW., *Irrigated crop production is associated with less malaria than traditional agricultural practices inTanzania.* . Transactions of the Royal Society of Tropical Medicine and Hygiene, 2002. **96**: p. 476-80.

42. Ijumba JN, S.F., Clarke SE, Mosha FW, Lindsay SW., *Irrigated crop production is associated with less malaria than traditional agricultural practices in Tanzania.* . Transactions of the Royal Society of Tropical Medicine and Hygiene, 2002. **96**: p. 476-80.

43. Mutero CM, K.C., Kimani V, Kabuage L, Gitau G, et al, *A transdisciplinary perspective on the links between malaria and agroecosystems in Kenya.* Acta Tropica 2004. **89**: p. 171-86.

44. Patz JA, D.P., Tabor GM, Aguirre AA, Pearl M, et al, *Unhealthy landscapes: Policy recommendations on land use change and infectious disease emergence.* Environmental Health Perspectives, 2004. **112**: p. 1092-8.

45. Sattenspiel, L., *Tropical environments, human activities, and the transmission of infectious diseases.* . American Journal of Physical Anthropology Suppliment, 2000. **31**: p. 3-31.

46. Utzinger J, T.Y., Singer BH, *Efficacy and cost-effectiveness of environmental management for malaria control.* . Tropical Medicine and International Health, 2001. **6**: p. 677-87.

47. World Health Organization, *The African Summit on Roll Back Malaria, Abuja, Nigeria, April 25, 2000. Geneva, (document WHO/CDS/RBM/2000.17).* 2000.

48. Dr Gabriel L. Upunda, C.M.O., Ministry of Health, United Republic of Tanzania, *Scaling up malaria prevention and control in Tanzania; 38th Regional Health Ministers Conference: Zambezi Sun Hotel, Livingstone Zambia17th –21st November 2003*

49. Federal Ministry of Health, *Malaria control in Africa in the new millennium. African Summit on Roll Back Malaria, Abuja 2000 Working Document.* 2000.

50. Schönfeld M, M.I., Schunk M, Maduhu I, Maboko L, Hoelscher M, Berens-Riha N, Kitua A, Löscher T, , *Molecular surveillance of drug-resistance associated mutations of Plasmodium falciparum in south-west Tanzania. Malar J 6: 2.* Medline, 2007.

51. Ministry of Health and Social Welfare, *Tanzania National Guidelines for MalariaDiagnosis and Treatment 2006. Dar es Salaam, Tanzania: MoHSW.* 2006.

52. MinistryofHealth., *Tanzania HIV/AIDS and Malaria Indicator Survey (THMIS) Report.* 2007/8.

53. Mengistu Legesse, W.D., *Community awareness about malaria, its treatment and mosquito vector in rural highlands of central Ethiopia.* Ethiop.J.Health Dev. , 2009. **23**(1).

54. WorldBank, *World Bank participation sourcebook. Washington, DC,.* 1996.

55. Loewenson, D.R., *Participation and accountability in health systems: The missing factor in equity?* EQUINET/ TARSC 2000, 2000.

56. Loewenson, D.R., *Public Participation in Health Systems Report of the EQUINET / TARSC Regional Meeting, In collaboration with World Health Organisation (AFRO/HSSD) Harare, May 2000.* EQUINET / TARSC, 2000.

57. Levers, L., Magweva FI, and Mpofu E., *A literature review of district health systems in east and southern Africa: Facilitators and barriers to participation in health.* EQUINET DISCUSSION PAPER 40, 2007.

58. Klugman, B., *The role of NGOs as agents for change. Development Dialogue.* 2000. **1-2**: p. 88-113.

59. Klugman B, *Accountability and Participation in Africa. Women's Health Project: Johannesburg. Retrieved 5 July 2006 fromhttp://www.wits.ac.za/whp/rightsandreforms/docs/edit3Accountability.PDF.*

60. Dr Rene Loewenson, *Public Participation in Health Systems Report of the EQUINET / TARSC Regional Meeting In collaboration with World Health Organisation (AFRO/HSSD) Harare,.* EQUINET / TARSC, May, 2000.

61. Godfrey M. Mubyazi, A.K.M., Elizabeth Shayo, Kassembe Mdira, Joyce Ikingura, and M.M.a.K.J.N. Didas Mutagwaba, *Local Primary Health Care Committees and Community-Based Health Workers in Mkuranga District, Tanzania: Does the Public Recognise and Appreciate Them?* Ethno-Med, 2007. **1(1)**: p. 27-35.

62. Government of Kenya, *Development Plan 1997-2001, Government Printer, Nairobi.* 1997.

63. Government of Kenya /Government of Finland (1994), *Primary Health Care Programme in Western Province of Kenya, Phase IV Operational Plan.*

64. Government of Kenya (GOK) (1986), *National Guidelines for the Implementation of Primary Health Care in Kenya. Ministry of Health.* 1986.

65. Serema BC, *'Community information structures in Botswana: A challenge for librarians', paper presented at the 68th IFLA Council and General Conference,*

Glasgow, Scotland, 18-24 August 2002. Retrieved 27 April 2006 from http://www.ifla.org/IV/ifla68/papers/029-114e.pdf.

66. Levers L.L, M.F.I., & Mpofu E., *A literature review of district health systems in east and southern Africa: Facilitators and barriers to participation in health.* EQUINET DISCUSSION PAPER 40, 2007.
67. Kahssay HM, P., Oakley., *Community involvement in health development: a review of the concept and practice. Geneva, World Health Organization.* (Public Health in Action Series, No. 5). 1999.
68. Diallo., *Evaluation of the financial participation of the users of 102 health services in three districts of Senegal.* Dakar Medical, 1995. **40**: p. 167-174.
69. Ngwengwe A & Macwangi M, *Effectiveness of district health boards in interceding for the community.* EQUINET Discussion Paper Series. , 2004.
70. United Republic of Tanzania, *Population and housing census. National Bureau of Statistics.* 2002.
71. Miles, M., and Huberman,M., *Qualitative Data Analysis, Baverly Hills CA:.* Sage, 1994.
72. Silverman, D., *Interpreting Qualitative Data: Methods for Analysing Talk, Text and Interaction, 2nd Edition London: Sage.* 2001.
73. Malterud, P., *The art and science of clinical knowledge: evidence beyond measures and numbers.* . The Lancet, (2001). . **358 (9279)**: p. 397-400.
74. Barley, K.D., *Methods of social Research, forth Ed. The free press: A Division of Macmillan, Inc, New YORK.* 1994: p. 97-98.
75. Avison, D., Francis Lau, Michael D. Myers and Peter Axel Nielson *"Action Research," Communications of the ACM,* . 1999. **VOL. 42, No. 1,**: p. 94-97.
76. Bryman., A., ed. *Social Research Methods Oxford University Press Inc., New York.* 3rd edition. 2008. 539-583.
77. Krueger R, *Focus Groups: A practical Guide for Applied Research London:* sage, 1994.

78. Yohannes M, H.M., Ghebreyesus TA, Witten KH, Getachew A, et al *Can source reduction of mosquito larval habitat reduce malaria transmission in Tigray, Ethiopia?* Tropical Medicine and International Health 10, 1274-85., 2005. **10**: p. 1274-85.