THESIS FOR THE DEGREE OF LICENTIATE OF ENGINEERING

Location of Private Health Care Facilities in Rapidly Urbanising Cities
The Case of Peri-Urban Area in Dar es Salaam, Tanzania

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Department of Architecture
CHALMERS UNIVERSITY OF TECHNOLOGY
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Cover:
The cover figure shows distribution of private health care facilities in Charambe and Chamazi. Figure prepared by the Author

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Abstract

For a long time, provisioning of health care facilities in Tanzania has been based on a threshold population and hierarchy of administrative units. Access to health care facilities is very low particularly within informal settlements in peri-urban areas. Focusing on the case of Charambe and Chamazi Administrative Wards in Dar es Salaam city, the study analyses the location of private health care facilities in the context of rapid urbanisation. Theories which illuminate research questions include neo-liberal planning theory, sustainable urban form theory, interest based theory and central place theory.

The study has found that provisioning of health care facilities based on the hierarchy of administrative units is not successful due to the oversight of the variation that exists among administrative wards as results of rapid urbanisation. Moreover, locational preferences of private health care facilities are not clearly analysed and integrated into the overall spatial organisation of the health care system. There are limitations of the private health care providers in investing in health care facilities of higher order and locating health care facilities based on population size and distribution. Therefore, spatial disparities of health care facilities' distribution are due to an inability of the Government to regulate spatial location of private health care facilities; it has also failed to adequately locate public health care facilities in less accessible areas including peri-urban area.

The paper concludes that location and distribution of health care facilities in rapid urbanising contexts should respond to population dynamics, nature of city growth and infrastructure in general. One of the key challenges is how to promote active participation of the private sector in addressing spatial location and distribution of health care facilities.

Key words: Location, health care facilities, administrative units, privatisation, accessibility, motivations, equity, population dynamics and hierarchy.

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CHAPTER ONE

INTRODUCTION AND BACKGROUND

1.1 Introduction

This study examines spatial location and distribution of private health care facilities in Dar es Salaam which is politically, economically, institutionally and commercially the largest city in Tanzania. It takes into account the fact that rapid urbanisation has created high demand for urban health care services which governments cannot meet. In attempting to address the aforementioned issue, privatisation has been seen as a critical strategy to compliment the government's capacity in health care service delivery. In line with this argument, the UN-HABITAT (2009) proclaims that decentralisation to local governments has been strongly promoted, but has not been matched by adequate funding; consequently, local governments have relied on privatised measures to provide and run services. It has been observed that Governments are intentionally fostering private health care providers, recognising their *de facto* role in increasingly pluralistic health systems and using them to reduce their own funding constraints (Söderlund *et al,* 2003). This is because many countries especially those which were formerly socialist like Tanzania are of late experiencing private economic activity; as such, they have little experience in regulating private sector's activities in health care *(Ibid).* Since spatial location of private health care facilities are not regulated, this study uses two cases namely Chamazi and Charambe in Dar es Salaam city, apart from substantiates this preposition, it explores spatial distributional patterns and their implications on access to health care. The emerging distributional patterns are analysed in order to understand how they influence equity, accessibility and hierarchy in the health care facilities in rapidly urbanising cities.

This licentiate thesis consists of eight chapters. The Introductory Chapter includes Background of the research issue, knowledge gap, research problem, research objectives, research questions and the study's rationale. Chapter Two presents the conceptual framework, Chapter Three covers literature review and Chapter Four presents Research Methodology. Chapter five presents empirical findings for Charambe Case (Case 1) while Chapter Six presents empirical findings for Chamazi case (Case 2). Whereas Chapter Seven covers cross-case analysis, theoretical reflections and policy implications, the last Chapter

provides conclusions, recommendations and areas for further studies. Note that all figures and tables are author's unless otherwise stated.

1.2 Health Care Service Delivery in Tanzania

1.2.1 Introduction and general policy framework

Tanzania is the largest country in East Africa covering an area of 945,087 Km^2 (URT, 2009). According to the last four consecutive National Population Censuses, the country's population has increased from 12.3 million in 1967, 17.5 million in 1978; 23.2 million in 1988 to 34.4 million in 2002[1]. The population of Tanzania is estimated at 46 million[2] in 2011. Population growth rate is about 2.9% and total fertility rate is 5.7 (URT, 2009).

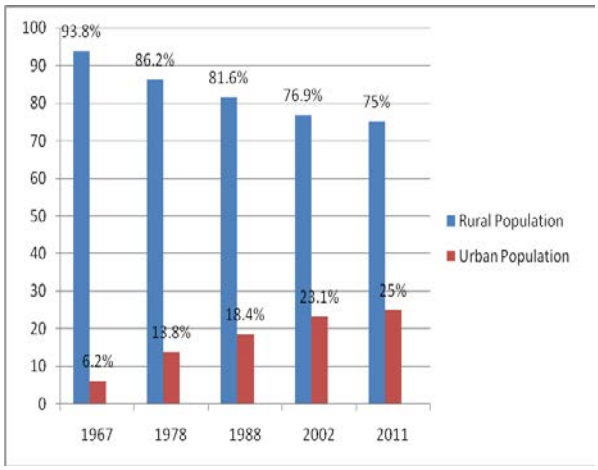

Figure 1.1: Urban population growth and decline of rural population (Source: NBS, 2002; Data analysed from USAID (2011) 2011 World Population Data Sheet, Population Reference Bureau)

Its population density is 38 persons per Km^2 *(Ibid).* The country's population comprises 48.9% males and 51.1% females *(Ibid).* Life expectance is 53 years for males and 56 years for females *(Ibid).* Urban population has increased from 6% in 1967 to 25% in 2011 while rural population continues to decline over time (Figure 1.1). Tanzania is classified by the United Nations (UN) as one of the least developed countries *(Ibid).*

Generally, the National Policy Framework including, the National Strategy for Growth and Reduction of Poverty, popularly known as MKUKUTA[3] and Vision 2025 has identified health as one of the priority sectors which contribute to a high quality of life and social well-being. The central motive has always been "access to quality primary health care for all". In total there are about 5,422 dispensaries, 663 Health Centres and 219 Hospitals in Tanzania[4]. The country has shifted its policy orientation from centralized economic planning in which

[1] Tanzania National Bureau of Statistics, Population and Housing Census, 2002
[2] USAIDS (2011), Population Reference Bureau, 2011 World Population Data Sheet (www.prb.org)
[3] MKUKUTA is a swahili abbreviation that stands for Mkakati wa Kukuza Uchumi na Kupunguza Umasikini Tanzania
[4] Ruling Party Manifestos, 2010

the state was the sole service provider to a liberalised economy where the private private sector is actively encouraged to participate in social service delivery in general and health care service delivery in particular.

Through the literature, it has been noted that current efforts to encourage private sector development originate from the complex history of the government's relations with private health providers. Over the past 50 years, this historical context can be classified into three different political environments in Tanzania (Munishi *et al,* 1995). These are the periods before and immediately after independence in 1961; the period from the Arusha Declaration in 1967 until introduction of the Structural Adjustment Program in 1988; and the period since 1988 to date. The later covers liberalisation of health care services which prompted enactment of Private Practice Act 1991 and review of National Health Policy of 1990 *(Ibid).* Review of National health Policy (1990) aimed at accommodating new institutional arrangements emerging from public-private model in health care service delivery.

1.2.2 The pre-independence to the Arusha Declaration (1967)

Before and immediately after independence in 1961, the government encouraged private sector[5] growth in health care system especially not-for-profit health care providers (Tibandebage *et al,* 2001). Pre-independence legislation, such as the Medical Practitioners and Dentists Ordinance of 1959 (Chapter 409), allowed medical and dental practitioners to practice and collect fees for their services (Munishi *et al,* 1995). Private health care providers were not required by the law to apply to the Ministry of Health, and there is no evidence that they were required to pay taxes *(Ibid).* For senior government-employed doctors, besides treating patients in grades I and II (high grades), could also have private, paying patients in the hospital (intramural patients) and could maintain a private practice outside the hospital (extramural patients) after official working hours *(Ibid).* Such doctors received 30% of the fees charged in intramural practice *(Ibid).* It is worth noting that the 1959 law allowed only medical and dental practitioners to practice privately, and other categories of medical personnel were excluded (e.g., nurses) *(Ibid).* Additionally, Assistant Dental and Medical Officers (licensed practitioners) were allowed to undertake practice in government institutions only under physicians' consultative guidance *(Ibid).*

[5] Church owned health care facilities dominated the not-for-profit sub-sector as indicated by ESRF Discussion Paper No. 26, April 2001.

1.2.3 The Arusha Declaration to the structural adjustment program period

The Arusha Declaration in 1967 established a socialist government, discouraged private ownership of property and business, and committed the government to a policy of "equal access" under which it would provide health and other social services to the population free of charge (URT, 1999). This was the period of centralisation (Munga *et al*, 2009). The Government put people at the centre of the Country's development process. Since then priority has always been given to expand and strengthen basic social services, such as health and education.

The key features of the policy under the Arusha Declaration included universal access to health care services; emphasizing on providing health care to the rural areas through dispensaries, health centres and training of short and medium term health care workers; establishing a comprehensive health care services which balance curative, preventive and promotional services, and lastly ensuring that a primary health care approach is adopted (Chachage and Mbilinyi, 2003). To implement this policy in the health sector, the government encouraged communities to construct health facilities as part of the self-reliance movement *(Ibid).* Once these facilities were constructed, the government provided staff, equipment, and medicines *(Ibid).* In this way, the government found itself taking responsibility for many rural dispensaries and health centers. This was in line with the implementation of the policy for Ujamaa Village[6] as the central agenda in rural development. Nyerere (1973) argued that:

> "Our policy is firm; and we have now organized Government and Party so as to enable maximum help and encouragement to be given to all these socialist communities. The only point I wish to stress is the decision to start Ujamaa villages, big and small, throughout the country".

After the Arusha Declaration, development policies had a heavy rural emphasis due to the fact that only 4% of the population was living in urban area immediately after independence in 1961 (Olofsson & Sandow, 2003). Similarly, health care facilities were redirected towards rural areas and free medical services were introduced especially for primary health care facilities (URT, 1996). One of the key components of health policy was equitable distribution of health care facilities *(Ibid).*

[6] Ujamaa village was initiated with the foundation of self-help and self-reliance. Ujamaa is a Swahili word meaning 'socialism'. Villagers were working together in communal farms and in other development activities. In Ujamaa villages, settlements were pulled together to facilitate distribution of services.

In this widespread strategy, Ujamaa Villages were given priority in the services of the trained personnel as well as in the allocation of new dispensaries, schools and water supply (Munga *et al*, 2009). However, giving top priority to rural development meant that there were less resources devoted to urban development. This policy orientation explains the rapid increase in the number of government-owned health care facilities in rural areas during this period. It was observed that about 93% of the population in Tanzanian lived within 10 km to health care facility and about 72% were within 5 km of the same (URT, 1999 citing MoH[7], 1978). Each health care facility was designed to deliver preventive health care services, maternal child health and family planning services free of charge (Chachage and Mbilinyi, 2003). As a result, about 60% of all deliveries took place in health care facility and all health care services were universally accessible. Between 1961 and 1990s, dispensaries were increased from 875 to 3,014; health centres from 22 to 276 and hospitals from 98 to 175 respectively (URT, 1996). The pyramid structure of Tanzania's national health care system, stressing primary care at an affordable cost, makes it a pioneer in sub-Saharan Africa[8].

During this period, the government provided significant support, in terms of beds and personnel grants, to the health care units owned by religious organizations. In the Districts where government could not provide District Hospitals, it took total responsibility for the financing of supplies and personnel for the church-owned hospitals. These hospitals were renamed "Designated District Hospitals," (DDHs) and health care services were rendered free of charge to the population (Munishi *et al*, 1995). Two large consultant hospitals, namely Kilimanjaro Christian Medical Center (Lutheran) and Bugando Hospital (Catholic) were also taken over by the government to become zonal national consultant hospitals *(Ibid).* Private for-profit medical and dental practices were eventually forbidden by the Private Hospital (Regulation) Act 1977. This law only allowed “approved organisations” (mostly non-profit and religious entities) to establish and manage private health care facilities (Munishi *et al*, 1995). To achieve “approved” status, an organisation had to enlist under the Registrar of Societies and then to apply to the Registrar of Private Hospitals, who was appointed by the Ministry of Health.

[7]MoH stands for Ministry of Health which is now called Ministry of Health and Social Welfare.
[8]Health - Tanzania - systemhttp://www.nationsencyclopedia.com/Africa/Tanzania-HEALTH.html#ixzz1WsaSwTEF accessed in July 2011

Other forms of private medical practice were allowed by the 1977 legislation under narrow conditions. The first condition, as mentioned, was that private practice could be undertaken only by "approved organisations." The second condition empowered the minister of health to give permits to some individuals and organisations to own and manage health care services. Many units were established under the umbrella of "approved organisations" under the first condition, but very few units were approved under the second. A third condition was the government's undeclared tolerance of indigenous traditional healers. This allowed herbalists, spiritual healers, and traditional birth attendants (TBAs) to practice with little or no interference from the government. Even at present government recognises and encourages the traditional methods of treatment for some diseases, and a number of clinics exist in Dar es Salaam such as Kilimanjaro, and elsewhere at which people obtain and pay for treatment by traditional healers (URT, 2007).

Two of the provisions of the 1977 law created an unintended effect. First, even though the 1977 law permitted "approved organisations" to collect fees from patients, it controlled the fees charged by the private for profit hospitals and dispensaries. Second, medical personnel could practice outside government service only if they were employees of the "approved organisations." With the disincentives of regulated fees and a cumbersome permit process, as well as outright proscription on some kinds of private practice, numerous medical practitioners exploited the loophole related to affiliation with "approved organisations" and started up for-profit private hospitals and dispensaries under the umbrella of such organisations. In addition, a substantial number of unqualified junior health assistants were able to start up private health care facilities under this umbrella.

However, the achievements made in health sector in the 1970s could not be sustained. Economic turmoil of the 1980s due to oil crisis, famine, and Tanzania-Uganda War, impaired centrally funded health care system and other development sectors (Burki, 2001; Chachage & Mbilinyi, 2003). While the gross domestic product grew by an average of 1.5% in 1978/79, population increased by 2.8% and the value of export declined from US$724 million in 1981 to US$ 391 million in 1985. The health budget declined for four consecutive financial years

from 7.1% in 1977/78 to 5.6% in 1980/81, 5.4% in 1982/83 and 3% in 1984/85[9]. Government funded health care facilities suffered from the consequences of economic crisis hence inadequate drugs and tools were common in many health care facilities (Tibandebage *et al,* 2001). This situation left many Maternal Child Health (MCH) clinics empty and forced women to go to delivery with their own delivery kits (Chachage & Mbilinyi, 2003). About 43% of government health facilities needed urgent repairs but could not get *(Ibid).* Almost all health workers' morale declined and government lost about 26% of its physicians who left the country *(Ibid).* This was the critical time when government needed financial support. For example, survey conducted in Dar es Salaam indicated that residents demanded private health care and reported increasing amount of household budget to health care services *(Ibid).*

1.2.4 Health sector reforms: The period between the mid-1980s and to day

Government failure to sustain achievement in health care service delivery between 1960s and 1970s, made the Government to respond with policy changes. This included the Structural Adjustment Programme (SAP) and abolishment of local governments in 1972 which was reintroduced in 1982[10]. The government publicly announced in 1985 that it needs both NGOs and private for profit health care providers in health care service delivery and in 1991 private practice in health care was legalised (URT, 1999). The adoption of complementation rather than confrontation policy was a means to cope with the increasing demand of health care services. It realised that abolition of private health care providers undermined and reduced the rate of growth of the private health sector hence health care service delivery. Private Hospitals (Regulation) Act which was introduced in 1977 was amended in 1991 to give recognition of individual qualified medical practitioners and dentists to manage and own hospitals and clinics for profit (URT, 1999:94). On the other hand the cost sharing has been introduced in public health care facilities.

Health Sector Reform was in line with the Structural Adjustment Programme (SAP) and Public Service Reform Programme (PSRP) which was initiated in 1992 with a view to address the new role of Government in the context of liberalised and market-oriented economy (Burki, 2001). The first step under the SAP is to rationalise, liberate, and stimulate the health care services provided by the not-for-profit "approved organisations." These

[9]Budget Speech for the Ministry of Health in 1985/86

[10] A paper presented by the Permanent Secretary, PMO-RALG, during the National Convention on Public Sector Reforms 17th – 18th June, 2008, Ubungo Plaza, Dar es Salaam

organizations also “shelter” some private individuals who would not otherwise have received permits to practice under the 1977 law, as mentioned. These "sheltered" private entrepreneurs can now move away from the umbrella of "approved organisations" in order to acquire permits of their own to operate as for-profit entities. The second step under the SAP in the wake of the 1991 Private Practice Act is to widen the scope of permit acquisition from approved organisations to approved individuals, to allow any qualified individuals including those who acquired permits by ministerial discretion in earlier periods to establish for-profit or not-for-profit health care services without the bureaucratic constraints of the past. The third step is to develop policies that will rationalise, standardise, and assist the growth of traditional health care services that are safe and that meet the population's needs.

The 1990 National Health Policy was reviewed to accommodate new requirements including promotion of private sector in health care service delivery, contribute to National Strategy for Economic Growth and Reduction of Poverty (2005), and addressing the objectives of MDGs related to health to mention a few. A new health policy was then formulated in 2007 with new public-private model in health care system. Privatisation of health care services and cost sharing have been considered key strategies, not only to improve efficiency in health care service delivery, but also to alleviate resources constraints in developing countries at large (Paphassarang *et al,* 2002).

However, these actions to liberalise the environment for private sector health providers are still relatively new, and there are still many questions to be addressed by the Ministry of Health and Social Welfare and the government in general. The specific areas that are not well elaborated include the comprehensive framework for urban health care service delivery that distinguishes urban and rural settings. The other aspect which is not clearly elaborated is the understanding of the character; quantity, ability, and potential of individual providers to contribute in addressing equity issues in all dimensions which is the central public sector goal in health care. The next Section reviews three models of health care service delivery, which also reflects aforementioned paradigm shifts in health care systems in Tanzania.

1.3. Review of Health Care Delivery Models and Emerging Research Issue

There are three models of health care service delivery based on the analysis of the historical context of health care system in Tanzania. These include politically driven and centralized administrative model; the physical planning model (Master Plans) and the public-private

model which is driven by a neo-liberalism theory and decentralization notion. The latter mode tries to bridge the gap of health care demand left by the first two models.

1.3.1 Politically driven and centralised model of health care service delivery

Politically driven and centralised model of the location and distribution of health care facilities was largely rural oriented and state governed. Distribution of health care facilities was strongly emphasized in the rural areas where about 80% of the country's population lived (Mkony, 2009). The central development agenda concentrated on fighting ignorance, disease and poverty. Rural biased development approach was not limited to health care, but also to the overall national movement in adopting socialism ideology. Nyerere (1973:96) clearly said that:

> "The decision to give top priority to rural development does not only affect what is done in the rural areas; it also has implications for every other aspect of the Development Plan. Thus, for example, it means that there is less money and less manpower which can be devoted to improving conditions in the urban areas".

At the end of colonial period in Tanzania; about 96% of population was living in rural settlements (Olofsson & Sandow, 2003). This situation was the basis for the argument. Under this model, five levels of health care facilities are provided in a hierarchical order namely dispensaries at Village level; health centres at Ward level; district hospitals at District level; regional hospital at Regional level; and national hospital at National/Zonal level (URT, 1990; URT, 2007). The organisational structure forms a pyramidal like structure where dispensaries are at the bottom, health centres at the middle and hospitals at the apex (Figure1.2).

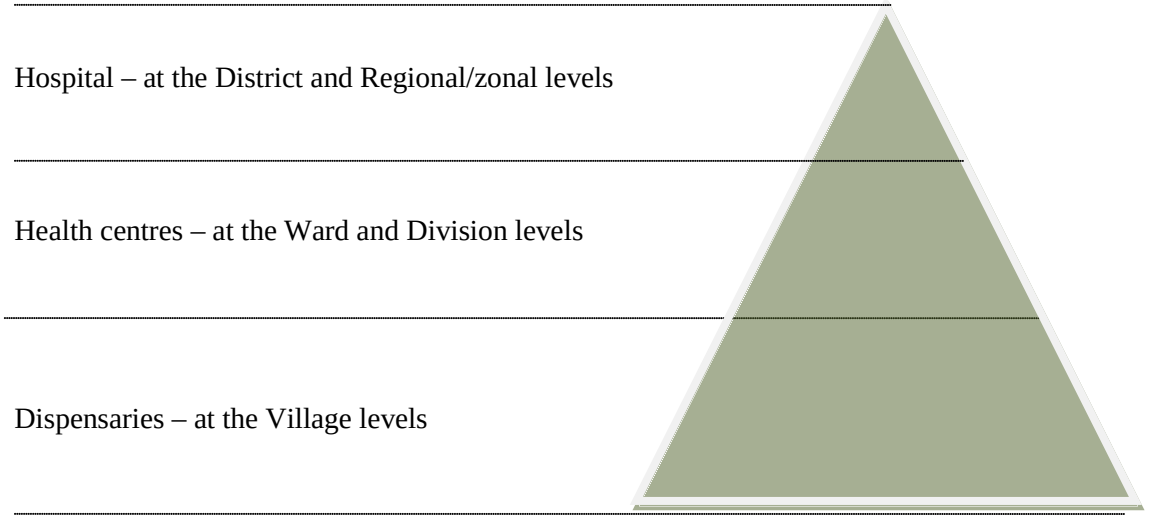

Figure 1.2: Centralised model of health care service delivery (Source: National Bureau of Statistics (Tanzania) and Macro International Inc (2007); CCM Manifesto, 2010)

The hierarchy as shown in Figure 1.2 is largely composed of public/government health care facilities which are health care facilities owned by a government and receives government funding. These health care facilities include dispensaries, health centres and hospitals. In politically and centralised model of health care service delivery, there are five types of health care facilities that are provided based on the administrative units and threshold population.

Dispensary

A dispensary is the lowest level of the public health system which provides the first point of contact with the health care system. It offers health care based on outpatients services including maternal and child health (MCH) with limited laboratory services. Building which hosts a dispensary should have a minimum of 8 rooms, a store, toilet facilities and an incinerator. It may offer observation services for selected patients for less than 12 hours (URT, 1996). The maximum number of observation beds is 4. The dispensary caters for between 6,000 to 10,000 persons and the new health policy requires that each village should have a dispensary.

Health Centre

Health centre is a health care facility which offers services to both outpatients and inpatients including maternal and child health services. It should have a minimum of 15 rooms excluding maternal and child health; inpatients' beds in the health centre should not exceed 15 (URT, 1996). It is the first referral point where more specialised health care services are offered to the inpatients as compared to the dispensary. A health Centre is expected to cater for 50,000 persons which are approximately the population of one administrative division (www.moh.go.tz).

Hospital

Hospital is a health care facility which offers outpatient and inpatient services at a higher level than dispensaries and health centres. It offers diagnostic services based on laboratory testing and radiology and surgical services, including emergency obstetric care (URT, 1996). However, there are three main types of hospitals which are categorised based on District, Region and National or Zonal Levels as explained below:

District Hospital

This is the hospital that caters for the whole District. Therefore, the criterial for location is the administrative units; District in rural areas; and town, municipality and city in urban areas.

Regional Hospital

Regional hospital is a health care facility which is located in a well-defined geographic area (Region). It provides specialised care that requires skills and competences not available at district hospitals, which makes them the next level of the referral system. Their personnel include general surgeons, general medical physicians, pediatricians, general and specialised nurses, midwives, and public health staff. Every region is supposed to have a referral hospital (URT, 2007). This level seems to provide the best set-up if health care facilities at the district levels are well established especially the primary health care facilities. In this case region could be self-contained in terms of hierarchy of health care facilities.

University/Consultant Hospital

The 1996 Guidelines for Provision of Health Care Facilities in Tanzania states that University and Consultants Hospitals (Referral Hospitals) are centres of excellence that provides complex health care requiring advanced technology and highly skilled personnel. They have a high concentration of resources and are relatively expensive to run. They also support pre-service and in-service training of health workers. The main referral and University hospitals in Tanzania are Muhimbili National Hospital which is located in Dar es Salaam, Kilimanjaro Christian Medical Centre (KCMC) in Kilimanjaro, and Bugando Medical Centre in Mwanza. There are also two private University Hospitals namely Tumaini in Iringa and Mikocheni in Dar es Salaam. The university and referral hospitals receive referral cases from district and regional health care facilities. With their concentration of resources and personnel, the university and referral hospitals help solve local and national health problems through research; they also contribute to policy formulation. Teaching is the primary function of these hospitals.

1.3.2 Euclidean/master planning approach in health care service delivery

While the centralised model of health care service delivery is rural oriented, master plans are meant to improve location and distribution of community facilities including health care facilities in urban areas. Management of towns and cities through the Master Planning Approach in many African cities is part and parcel of the public sector management system

of government inherited from the colonial era (Kironde, 1995; Rakodi, 1997). These traditional master plans specify different land use such as residential, commercial, industrial and areas for community facilities. The standards for locating and distributing community facilities such as health and education are also provided in the master plans[11].

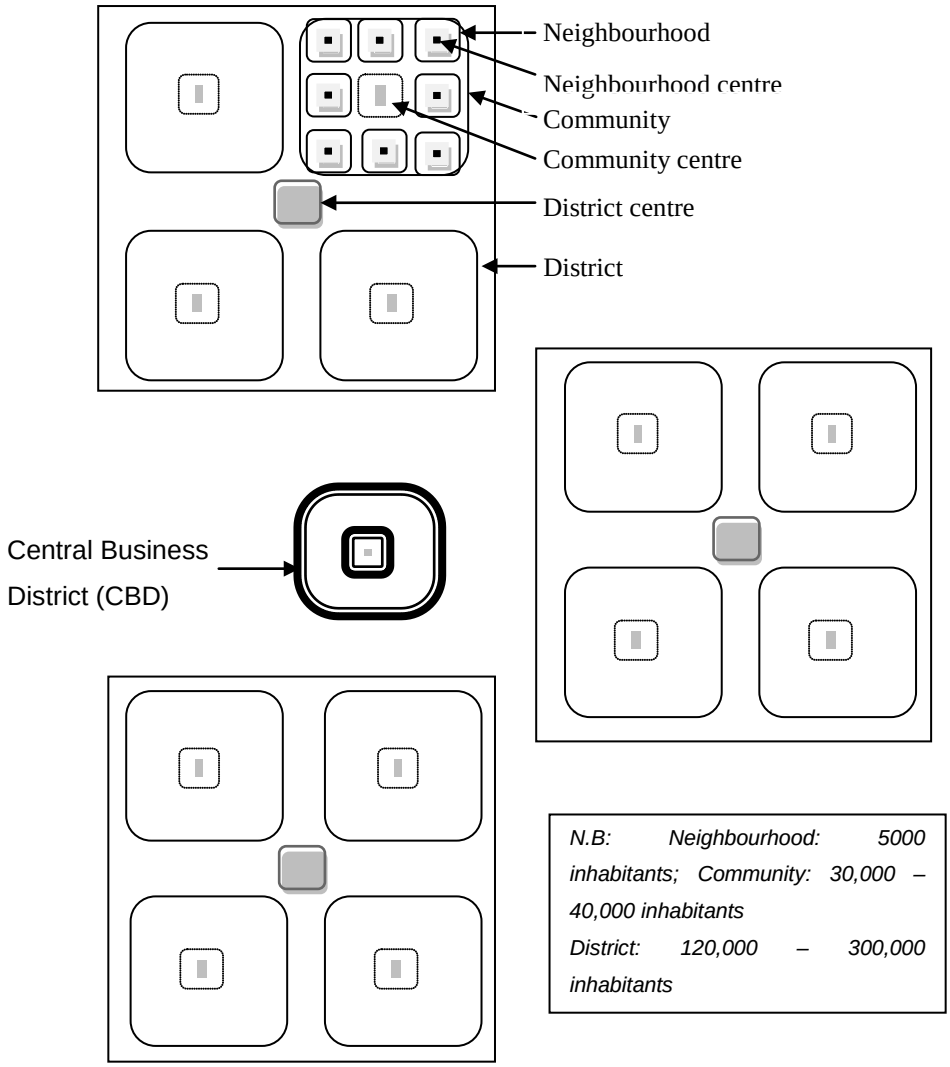

Figure 1.1: Hierarchical order of settlements in Dar es Salaam City (Source: Dar es Salaam Master Plan, 1979)

As such, health care facilities like any other community facilities were provided based on the threshold population and planning units. The main planning units where health care facilities were to be provided included neighbourhood, community, district and central business district. .

[11] Dar es Salaam Master Plan, 1979

Neighbourhood

It is estimated that 4 to 8 housing clusters form what is known as Neighbourhood. Neighbourhood is the basic unit of planning which is limited in physical size, has a well-defined edge, and has a focused centre (Fainstein, 2003). It accommodates between 3000 - 6,000 inhabitants and provides the most elementary daily needs which are accessible within five minute-walk (Kunstler, 1996 cited in Fainstein, 2003). Dar es Salaam Master Plan (1979 – 2000) specifies 5,000 inhabitants in a neighbourhood. At this level various community facilities are found. The common ones include a primary school which is the focal point of the neighbourhood planning, clinic, shopping facilities, community halls, market place, recreational facilities like park and open spaces. These public facilities should be located at the neighbourhood centre, which is the most accessed area situated within a maximum distance of 1000 metres (1 km) from the residential areas. It is worth noting that neighbourhood centre is the lowest order of centre in a hierarchical order of centres in urban settlement.

Community

Another level of urban planning unit next to neighbourhood is the Community Unit or Sub-district level). It consists of a 4 to 8 neighbourhoods and the population of a Community Unit can, therefore, vary from 12,000 to 48,000 inhabitants. Neighbourhoods are grouped around a Community Centre, which include services of higher order. The Community Centre is a self-contained with respect to day to day needs of its residents. Facilities available include market, shops, meeting halls, post offices, large recreational areas, religious facilities, library, cemetery, petrol station and those facilities available at neighbourhood levels. A dispensary is provided in every two neighbourhoods thus community should have 2 to 4 dispensaries and a Health Centre.

District

Planning District is another urban planning unit at higher level than the Community Unit. It consists of 6 to 10 Residential Communities. It accommodates population ranging from 120,000 to 300,000 inhabitants. It consists of District Hospital with 300 beds, police station, fire stations with ambulance, banking facilities, small scale industries, commercial area, hotel, cinema hall, administrative offices and education centre. It coordinates urban functions to ensure harmonious service delivery.

Central Business District

The highest centre in hierarchy of urban settlement is the Central Business District (CBD) which serves the whole City (with several districts) and the country at large. Public service, administrative and specialised functions are found at the CBD. It is the most accessible areas in the city which offers good and services of the highest order. Ideally, the teaching and referral national hospitals are to be found in this centre as it caters for the whole country or region.

Pitfalls of master planning approach in guiding city growth and distribution of health care facilities

Traditional Master Plans have failed to guide urban development. Consequently many urban centres and cities in most parts of developing countries have developed and are continuing to develop outside the urban planning machinery (Kombe, 1995; Rakodi, 1997; Lupala, 2002; UN-Habitat, 2009). The facts that these informal settlements are developed outside formal urban planning systems, the concerns about public facilities like health care services are not taken into account. Therefore, location and distribution of health care facilities cannot be as envisaged.

1.3.3 Public-private health care service delivery model

It seems that the failure of the two aforementioned models of health care service delivery has led to adoption of the new approach. Privatisation of health care service delivery in 1992 and formulation of the new health policy in 2007 which took place along with a series of health sector reform strategies to improve health care service delivery has led to emergence of the public-private model of health care service delivery (Kumaranaye *et al*, 2000). This ended an extended period of proscription of private health care service providers. After liberalization, the number of private health facilities has grown very fast. This almost went parallel with decentralisation (by devolution) and privatisation was considered part and parcel of decentralization strategies.

The Public-Private Model in health care service delivery engage simultaneous both Government and Private Sector in health care service delivery. The Government under this arrangement takes the role of providing guidelines and legal framework in regulating the private health care services (URT, 1999). The Government, besides its intentions to reduce its role in health care services and promote that of private sector, has introduced cost sharing in its health care facilities (URT, 2007). The fundamental reason for a shift toward privatisation

of health service provision in many developing countries is due to fiscal crisis in local and central government (Muschell, 1996). In line with this argument, UN-Habitat (2009:154) observed that the paradigm shift has occurred in the context of the decline of the welfare state or the collapse of communism. The movement has now be towards neo-liberal economic and institutional policies which have tended to promote the market and market principles. On the other hand low level of development in many developing countries have inadequate resources to provide the basic infrastructure and social services needed to serve rapidly increasing urban population (Shakhs & Obudho, 1974:79; Kyessi, 2002).

One of the impressive immediate results of privatisation is that for the short period of time that is about eight years, between 1990 and 1997, about 35% of dispensaries, 16% of health centres and 56% of hospitals were owned by private sector[12] respectively. Amer (2007) observed that between 1995 and 2000 the number of government health care facilities has not changed; the new ones were largely constructed in the rural areas. For instance, in Dar es Salaam, about 2 years after liberalisation of private health care providers in 1991, 111 new private health care facilities were established. Private sector operates about 73% of health care facilities in Dar es Salaam[13].

1.4 Knowledge Gap

While the emphasis of rural development as strongly reflected in government development programmes and plans re-oriented policies to increase resource allocation to rural areas, it appears that there is still no systematic and clear framework for urban health care service delivery. The emerging public-private model in health care service delivery as a result of privatization still emphasises on administrative units as a basis for locating and distributing health care facilities[14]. The critical issues facing public-private model include how to address equity issues in its three dimentions (geographical, horozontal and vertical). It has been observed that equity cannot be improved with more private sector involvement thus public sector will continue to remain central in the provision of health care services (Shakhs & Obudho,1974). Supporting the argument, Rachlis (2007) assets that involvnement of private for profit health care providers increase administrative costs and decrease equity. In this

[12] Health Statistics Abstract, 1997
[13] Dar es Salaam City Council (health section, 2010)
[14] New National Health Policy 2007

respect, this study also seek to understand, among others, how spatial equity in urban areas is addressed through privatisation of health care services in Tanzania.

On the other hand, many cities especially in Sub-Saharan Africa, experience rapid population growth hence rapid informal urban expansion. This situation suggests that infrastructure and services such as roads and health care facilities cannot be located and distributed as planned due to lack of land reservation for community facilities. This interpretation goes with the fact that there is high concentration of health care facilities in the inner city of Dar es Salaam where accessibility is high as compared to peri-urban areas (Amer, 2007). This situation creates spatial disparities of distribution of health care facilities hence poor access to health services in peri-urban areas.

Due to intensification of informal land development in urban areas, many researchers especially in urban planning field, over the past two decades, have largely concentrated into how cities in developing countries grow without master plans; who are drivers in informal urban development and management. Other areas of focus have been why formal urban planning system fails to respond to rapid urbanisation and what are the options for improvement. The key researchers in this area include Kombe (1995); Rakodi (1997); Kombe and Kreibich (2000); Lupala (2002); Kombe and Kreibich (2006 to mention a few. Kyessi (2002) carried out research on community participation in infrastructure provision in Dar es Salaam, but he could not touch provision of health care facilities in a rapid urbanizing context.

Therefore, there is inadequate documentation on challenges in providing health care facilities in a hierarchical order under informal urban expansion. How privatisation of health care services addresses this challenge is not clear either in a spatial point of view. There is also a new observation that since 1970, the majority (for example in Lusaka is about 67%) of urban population in cities of developing countries are absorbed in informal settlements in peri-urban areas (Fainstein and Campbell, 2011). This trend prompts attentions to the Governments and researchers on how the basic services such as health care are provided to these new and growing peri-urban informal settlements; and how the situation can be improved.

1.5 Research Problem

Provisioning of community facilities based on a threshold population and hierarchy of administrative units and settlements, has been the main criteria in health care and urban planning systems respectively. In health care facilities, the criteria for spatial location and distribution are largely based on facility/population ratio and political administrative units such as Village/Sub-Wards, Wards, Districts and Regions. However, this criterion has been seriously overtaken by the rapid population growth in towns and cities like Dar es Salaam. In attempting to address the increasing demand of health care, privatisation has been seen as a critical strategy to compliment government capacity to meet the health care needs by the urban inhabitants. As the private sector provide possibilities for a sustainable scale-up of healthcare services to cope up with rapid urbanisation and limited public fund, issues of location, distribution and hierarchy of health care facilities in the public-private model are not clearly understood. Analysis of how private health care facilities are established and located, and factors influencing their spatial distribution constitute the research issue. This knowledge will contribute to the general understanding on how the emerging spatial distributional pattern influences overall hierarchical order of health care facilities and equity in health care service delivery in a rapid urbanising context.

1.6 Main Objectives

The main objective of this study is to examine how private health care facilities are established and located, and factors which determines their distribution; and how emerging distributional patterns influence equity, access and hierarchy in health care facilities in Dar es Salaam. Specific objectives include:

i. To map existing health care facilities in urban and peri-urban areas in order to compare their location and distribution patterns.
ii. To identify factors which determine location and distribution of private health care facilities.
iii. To explore motivations which promote private health care providers.
iv. To analyse how emerging location and distribution patterns influence hierarchy, access and equity in health care service delivery.
v. To provide recommendations to improve health care service delivery in rapid urbanizing context.

1.7 Main Research Questions

i. How are private health care facilities spatially organized in urban and peri-urban areas?
ii. What factors determine their location and distribution?
iii. What factors motivate private health care service providers?
iv. How does spatial location and distribution of private health care facilities influence hierarchy, accessibility and equity in health care service delivery?
v. How can the situation be improved?

1.8 Rationale

Health care service delivery is one of the key issues worth consideration in managing rapid urban growth in developing countries. Access to health care services is one of the key social determinants of urban health (Kjellström and Mercado, 2008). Health care has been considered to be at the centre of most strategies for poverty reduction (Lindelow *et al*, 2003). Urban health care systems are weak in many developing countries as many local and municipal institutions are ill-equipped to respond to the growing health care demand *(Ibid).*

On the other hand, upon privatisation of health care services, most of private health care facilities concentrate in urban areas hence their potentials and limitations need to be known for effective state interventions. Thus, health care services in cities need to be given special attention due to high population growth in which higher densities of housing and people coupled with ease of movement within and between cities, creates new risks for health hazards such as disease transmission, accidents and pollution. Therefore, analysis of location and distribution of health care facilities is important to address the aforementioned issue.

Given the limited government capacity to provide health care services for all, mobilising resources outside the public sector is crucial and strategic to improve health care service delivery in rapidly urbanising cities. There is also a need to enhance health care service delivery that meets all socio-economic groups especially the most disadvantaged ones, hence spatial equity is crucial to address this policy goal. This study is in-line with the afore mentioned argumentations as it seeks to understand how private health care facilities are established and spatially organised to deliver health care services to the community and how their set-up affect access to health care, equity and the whole question of hierarchy in health care service delivery in urban areas. Analysis of spatial aspects of provision of health care services and characteristics of actors involved in the context of rapid urbanisation, provide

empirical evidence on the theoretical limitations in relation to liberalisation, physical planning and sustainable urban forms.

Spatial analysis of location and distribution of health care facilities is important as spatial urban expansion influences the way health care facilities are located, distributed and accessed. Similarly spatial urban expansion is influenced by population dynamics. As such, investigation of distribution of private health care facilities in relation to demographic characteristics is one of the missions of this study. This study is also important as it delineates the distinctions that exist among urban and peri-urban wards which have significant implications in the way health care facilities are currently provided. The new trend of rapid informal settlements growth in peri-urban areas need special attention hence strategy to locate and distribute health care facilities that reflects population dynamics in the area. This study puts into perspectives the spatial reflection of public-private model of health care service delivery in urban area.

Lastly, this study explores the spatial limitations of private health care service delivery which enlighten areas for effective interventions by the government institutions. It also highlights on the policy issue that need urgent responses to address the equity, access and hierarchy issues persistent in location and distribution of health care facilities in general and private health care facilities in particular.

CHAPTER TWO

THEORETICAL AND CONCEPTUAL FRAMEWORK

This section presents a conceptual framework that illuminates the understanding of location and distribution of private health care facilities in urban areas. Urban health care facilities are viewed as one of the community facilities that should receive major attention in physical planning. They are among urban components in which their functions depend on how other interrelated components function. This is due to the fact that human settlements whether urban or rural are made up of interrelated parts from the largest such as trunk roads to the smallest such as street furniture, lights and foot paths (Klasander, 2003). Urban Planners literally, intervene to manage change in the built-up environment by attempting to put together the most functional related components and coordinate different urban land uses so that efficiently, convenience and harmony can be improved. More interesting in this study is the definition of planning by Friedmann (1993)[15] *"Planning is that professional practice that specifically seeks to connect forms of knowledge with forms of action in the public domain"*. Therefore, urban planning is crucial to creating supportive physical environments for health and health equity (Kjellstrom and Mercado, 2008).

In the scholarly work, it is important to be aware of the full range of theories that might be relevant to the study (Yin, 2009). In line with this argumentation, the study identifies and reviews theories which seem to be relevant to illuminate the premises underpinning private health care service delivery and distribution of services. These theories include neo-liberal theory, central place theory; interest based theory and sustainable urban form theory. While privatisation has emerged as a central issue in the neo-liberalism and decentralisation discourses, issues related to sustainable urban form in a rapidly urbanising context and prevalence of poverty takes the same tune. Although these theoretical stances seem to be considered universal, there is variation of their practical applicability in different contexts. This Chapter, apart from discussing the aforementioned theories, takes an excursion into two main concepts namely accessibility and equity which appear to be central in health care discourses.

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[15] Friedmann, J (1993). Toward a Non-Euclidian Mode of Planning, Journal of the American Planning Association, Volume 59. No 4, Autumn 1993, Chicago, IL

2.1 Neo-liberal Theory and Emerging Public-Private Model in Health Care

The discourse of privatisation and emerging public-private mix is premised in neo-liberalism ideology. It offers a way to transform governance to make it more relevant to the dynamic of contemporary economies (Healey, 2006). Its pro-active elements promote entrepreneurial rather than regulatory style in governance *(Ibid).* It has proven popular because it promises increase in affluence for all even if within the context of growing inequality (Fainstein, 2003). It suggests an end of planning, and the rise of the market as the key organising principle of economic life *(Ibid).* In line with Fainstein, the UN-Habitat (2009) also noted that neo-liberal economic and institutional policies have tended to promote the market and market principles. The essence of neo-liberalism is therefore; to downsize the state to a set of core activities and tasks, introduce market-type mechanisms with greater competition especially in the supply side to encourage greater involvement of the private sector in various socio-economic activities including service delivery (Hahn, 2008).

Walsh (1995) cited in Merson, Black and Mills (2001) assets that:

> "A key change in recent decades in thinking about public management has been the recognition that the state need not provide services itself directly, but instead could play "enabling" role.

In this case the roles of the state are to create and preserve an institutional framework appropriate to facilitate the practice of private service providers (Harvey, 2005). Saad-Filho (2005) in Hahn (2008), argues that:

> "The rhetoric behind the neoliberal globalisation presents itself as being modern and progressive. In this rhetoric, the state by definition is inefficient in opposing to the private sector, which per definition is effective and innovative".

Supporting this argument, Healey (2006:200) argues that activities of government are criticised as ill-informed, oppressive, inefficient, unaccountable and insensitive to diversity. These claims are in favour of neo-liberal thinking and appear to be persuasive given government bureaucracies, development disparities among geographical regions and slow pace of improvement even in existing services and infrastructure.

Conception of neo-liberal ideology spread across developed to developing countries. This was symbolised by opening of the Berlin Wall in 1989 which earmarked the collapse of the East European socialist states; this was fundamentally a result of pushing neo-liberal agenda globally (Chachage & Mbilinyi, 2003). The agenda was pushed to the so called "third world countries" by World Bank and International Monetary Fund (IMF) through the sponsored

Structural Adjustment Programmes (SAPs) since the late 1970s *(Ibid)*. The SAPs advocated the efficiency of free market allocation of resources and emphasised deregulation, among others, in order to achieve competitiveness within the single global market for goods, capital, services, technology and labour *(Ibid).*

The strength of neo-liberal ideology is reflected in social, political and economic reforms that have been taking place under dictate of decentralisation (Quaye, 2004; URT, 2008). The International Financial Institutions (IFIs) specifically demanded that African countries introduce reforms in ten major policy areas including fiscal discipline, tax reforms, public expenditure priorities, financial liberalisation, competitive exchange rates, foreign direct investments, trade liberalisation, property rights, deregulations and privatisation *(Ibid)*. Out of these ten areas, this study focuses on privatisation as it constitutes one of the areas of the study. In line with this neo-liberalism view, UN-HABITAT (2009) proclaims that decentralisation to local governments has been strongly promoted, but has not been matched by adequate funding consequently; local governments have relied on privatised measures to provide and run services. Söderlund *eta al* (2003) argues that governments are deliberately promoting private health care providers, acknowledging their *de facto* role in increasingly pluralistic health systems and using them to alleviate their own funding constraints.

It has been argued that neo-liberal economic theory can be applied in health care with beneficial effects of markets and strong incentives (Saltman *et al,* 2007 citing Enthoven, 1985). The proponents of neo-liberalism also suggest that socio-economic rights in health care are also best ensured through free market, where services are delivered by private providers (Hahn, 2008). Neo-liberalism is also echoed in health care services in African countries. In Tanzania, for instance, one of the cornerstones of the government's current health sector reform efforts is to take greater advantage of the potential of the private sector in service delivery. It encourages private sector's development in ways that can complement the government's provision of health services (URT, 2007). This policy issue coincides with efforts to change the role of government from providing health care to regulating its delivery. It follows that the change in posture toward the private sector has its roots in recognition of current public sector financial constraints which make it necessary to look to non-governmental sources of health care, as well as in a changing political environment. This is exactly the compliance with neo-liberalism ideology as pushed by IMF and World Bank in most developing countries (Chachage and Mbilinyi, 2003). The IMF and the World Bank

demanded, among others, market-oriented reforms to balance trade and budget deficits; devaluate currencies, cut public expenditure and trade control and privatise public services and enterprises (Farazmand, 2000).

The key challenge is how these beneficial effects assumed in neo-liberal ideology; reach the poor and disadvantaged groups in the community. In this case the central issue is geographical equity in distributing health care facilities under market forces (supply and demand) where largely analysis is based on cost and benefit (profit orientation); and deregulations. This challenge is exacerbated by poor state economic growth with respect to population increase and weak government institutions to prepare urban development plans, and implement them; and enforce development control (Kombe, 1995). The question of affluence for all is related to access to health care for all, this study rises concern on how market ensures this promise. The rise of public-private participation creates also challenges in attempting to balance the interests between the two partners. As agued by Cambpbell & Fainstein (2003:7);

> "Public and private sectors no longer, if they did, represent mutually exclusive sets of actors, interests or planning tools"

Although beneficial effects of privatisation of health care services should be promoted by strong incentives, the key challenge remains on what kind of strong incentives should be given to private health care providers and how. This should also be assessed based on the capacity of government to provide incentives to the private providers at the same time regulate their health care services provision. Surely, neo-liberal critique should be reviewed for its relevance to a particular situation (Harvey, 2003) cited in Morales (2010). The kind of innovation which is said to emerge from private sector in health care service delivery, is also not understood and the pre-conditions for the same.

The neo-liberal theory illuminates the structure of emerging health care service delivery systems, and the relationship between government and private health care providers. To provide the conceptual framework of understanding health care service delivery in urban areas, equity and accessibility concepts are integrated to the public-private model (Figure 2.1).

2.1.1 Privatisation: an important element of neo-liberalism

In neo-liberalism rhetoric, privatisation is the process of selling state-owned enterprises, goods and services to private investors. It involves transfer of assets, responsibilities or functions from the government to non-governmental actors (Saltman *et al*, 2007). In health care services, privatisation is defined as the process in which non-governmental actors become increasingly involved in the financing and/ or provision of health care services and in which changes occur in public and private roles and responsibilities (Muschell, 1996). It is one of the forms of decentralisation (Saltman *et al*, 2007).

It has been argued that the term when applied to the policies, intend to encourage competition in the public sector; performance-related payment mechanisms and policies designed to give patients a choice of providers are in this category *(Ibid).* The health care system and spatial planning are intertwined and it seems that the holistic approach to health care planning will lead to improved equity, efficiency and quality of health care service delivery.

The Figure 2.1 presents the conceptual map of processes, actors and spatial location and distribution of health care facilities in urban area. External environment includes all external factors and actions that influence the government intervention on health care service delivery such as World Bank, IMF and other financial donor agencies as explained in details in Chapter One.

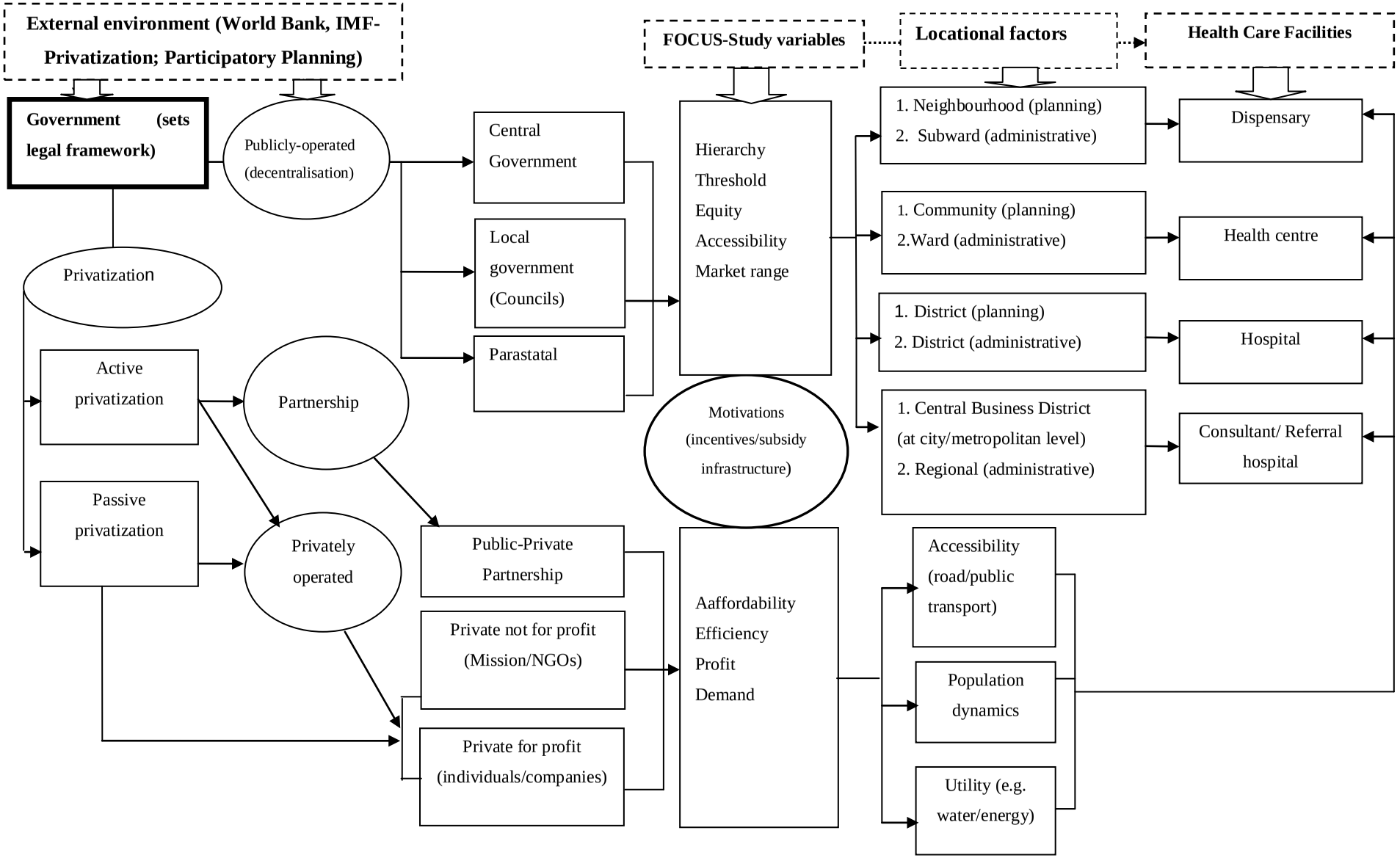

Figure 2.1: A Framework for Spatial Analysis of Urban Health Care Service Delivery in the Public-Private Model

It is argued that privatisation helps a government to reduce administrative and financial burdens with respects to delivering public services, increase efficiency and effectiveness of services to achieve value-for-money, encouraging innovation and develop more user-sensitive services, appropriate for a particular context (Kikeri *et al*., 1992 cited in Saltman *et al*, 2007). In this situation, privatisation is seen as a way to improve resources management and increase efficiency and effectiveness of service delivery. In health care perspective, privatisation is believed to increase the number of persons who seek health care outside the public sector, hence releasing scarce state resources to provide services for the poor. To realize the quality of services, government usually develops the favourable policies to encourage private sector participation in financing and delivery of health care services; set and enforce regulations and standards in which private providers will comply so as to ensure quality control. For active privatisation, incentives are very important aspect to consider and where necessary, the public-private partnership can be introduced (Muschell, 1996).

2.1.2 Forms of privatisation

Many scholars have identified various forms of privatization. The major forms include divestiture or transfer of ownership and management to the private sector, sales of shares through tender or capital markets, transfer of management to the private sector without change in ownership, introduction of production contract while retaining procurement and marketing function, profit-sharing with employee, outright liquidation, and lastly reduction in bureaucratic control without change in ownership (Ahmed, 1995:186 and De Walle, 1993:7-8 cited in Farazmand, 2000:3). Other forms of privatisation include change in legal status of public provisions, change in economic status of the public sector from direct producer to indirect provider and change in competitive environment by withdrawing monopoly rights of the public enterprises (Daintith 1994:45 cited in Farazmand, 2000). The government can also provide vouchers or financed cards or slips of paper that permit private individuals to purchase a goods or services from a private provider (food stamps) or a circumscribed list of providers; Franchising, that is, the establishment of a model by the public sector that is funded by a government agency, but implemented by approved private providers; deregulation, that is, the elimination of government responsibility for setting standards and rules concerning a good or service, user fees, that is, public facilities, such as hospitals, maximize their income or finance

some goods from private sources, either through drug sales or other services. The aforementioned modalities are also forms of privatisation according to Mohamed (2008:63)[16].

2.2 Central Place Theory

Spatially, central place theory provides crucial concepts in understanding spatial and hierarchy in distribution of health care facilities in urban and peri-urban areas. The central place theory takes its origin from the work of the German geographe, Walter Christaller, who studied the urban system of Southern Germany during the 1930s (Rodrigue, 1975). A central place has the main function to supply goods and services to the surrounding population. Its influence is undertaken with its market area and the size of this market area determines the nature of the spatial order.

The theory was an attempt to explain the size, nature and spacing of cities as central places supplying goods and services to the surrounding population *(Ibid).* Important elements related to this theory are, first, the threshold which refers to the minimum population required to support a given function. Second, is a range which is the maximum distance a consumer travels to purchase goods. Goods are classed on a relative scale from lower order to higher order goods. Lower order goods are those goods which consumers need frequently and therefore are willing to travel only short distances to get them. In health care, this can be regarded as primary health care facilities (dispensaries and health centres). Higher order goods are needed less frequently, so consumers are willing to travel farther to access them. In health care, this can be regarded as hospitals' services. These longer trips are usually undertaken for not only purchasing purposes but also other activities as well. One result of these consumer preferences is that a system of centres of various sizes will emerge over space. Each centre will supply particular types of goods according to its level on the hierarchy.

This theory provides basic concepts in health care service delivery; the first one is the threshold population which for long times has been used to provide health care facilities in urban areas (population/facility ratio). The second key concept is hierarchy in goods and service distribution. Health care facilities are organised in hierarchical order based on the population size, location

[16] Sudanese Journal of Public Health: April 2008, Vol. 3(2)

and geographical area in both planning and administrative point of view. The third concept is the "range" which is the average maximum distance people will travel to purchase goods and services. This is seemed necessary for efficiency and economic utilisation of services.

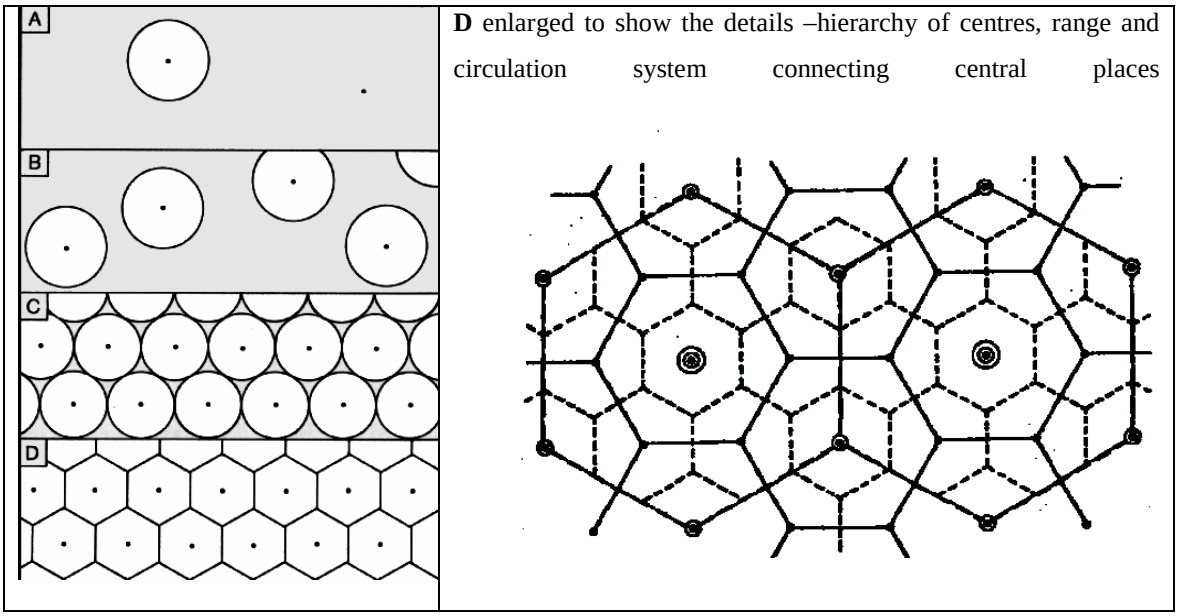

Figure 2.2: Central place theory (Euclidean model)
(source: http://www.yck2.edu.hk/onlinestudy/form6/ychui02.pdf accessed in May 2011)

Figure 2.2 systematically shows that circular shape in **A** of the market areas results in either un-served areas **B** or over-served areas **C**. To solve this problem, Christaller suggested the hexagonal shape of the markets as shown in **D** in the above diagram. In **D,** all areas are accessible and are functionally coordinated, hence equally serviced.

According to this theory, having a high order service implies there are low order services around it, but not vice versa. This is in line with health care facilities in that health centres provide medical services that are available at dispensary, while hospital provides medical services that are also available at the health centres and dispensaries but not the other way around. In the wider urban planning point of view, the higher order community facilities such as hospitals are also functionally coordinated and linked to, the lower order facilities such as health centres and dispensaries.

Weaknesses of the central place theory

Practically, the layout of centres never conforms exactly to the predictions of the theory due to a variety of factors affecting the spacing and functions of centres. The economic status of consumers in an area is also an important factor influencing mobility, behaviour and the demand of service. For instance, consumers of higher economic status tend to be more mobile and therefore, bypass lower order centers which provide only lower order goods. Other factors influencing settlements development includes natural resources/good climate, transport systems etc. These factors may influence significantly the spatial distribution of services. Christaller assumes an even plain and a uniform distribution of natural resources and population with equal purchasing power, which, in a real world, can never happen. Other critical argument is that the domination of a large centre may create a "shadow effect", discouraging the growth of smaller centres which is in contrary to his prediction.

Another shortcoming of the central place theory is it's ignorant on the political dimension in land use decisions. The government zoning laws and commissions to administer the laws, the political dimension of land use decisions became more salient in processes of urban development especially during the 20th century. Notwithstanding, the central place theory, with its focus on economic gradients, did not provide an obvious way to interpret the political dimension in decisions of land uses.

Despite the criticism aforementioned, the theory plays a cardinal role in identifying important concepts such as the interdependence of a city and the region, a hierarchy of functions and centres, and the market range and threshold populations. In addition, the central place theory like most theories in urban and regional development planning has practical limitations, but does provide an organised framework for conceptualising and describing, epistemologically what is likely to happen in practice.

2.3 Interest Based Theory

From this theoretical perspective, a cooperation or partnership will only be realised when each of the actors find it in their own interest to coordinate their policies with the rest (Yeboah, 1995). Interests of private health care providers (largely profit maximization) is not the same as interest

of the state (health care for all). According to Lowdnes and Skelcher (1998), actors prefer to be independent and will choose to collaborate only when they see particular advantages to themselves. How to bridge the mutual benefits between private and public seems to be the main challenge in interest-base theory. Mutual benefit is thus the main driving force for the partnership. The question that arises from this theory is what kind of benefits private health care providers receive as they complement government in health care service delivery. The focus is thus on the incentives and motivations. Does government provide facilitative environment such as physical infrastructure like roads, water supply and power to facilitate growth and innovation in private health care providers? This theory illuminates issues related to incentives that facilitated or motivate private sector to actively participate and collaborate with public sector in health care service delivery. Therefore, how to safeguard the interests of private health care providers such as profit maximisation and growth and balance it with equitable distribution of health care facilities is still a major challenge.

2.4 Sustainable Urban Form Theory

Upsurge of sustainable urban form theory was due to weaknesses of the modernism planning approach which is based on procedural theory (UN-HABITAT, 2009). The most common criticism in the modernism planning approach is that it bears so little relation to the reality of rapidly growing of cities, environment and poverty *(ibid).* As such during recent years, there has been reaction against modernist form and urban sprawl and the need to reconsider issues related to urban morphology (Allmendinger and Tewdwr-Jones, 2002). To address this problem, new urbanism approach proclaims that there is relationship between urban morphology, sustainability, efficiency and inclusiveness (Fainstein and Campbell, 2011).

The new urbanism approach reflects spatial principles of the compact city and the sustainable city approaches. Compact city form takes into account environmental and resource issues, and the need to create quality urban public spaces. At neighbourhood level, new urbanism approach promotes local areas with fine-grained, mixed-use, mixed housing types, compact form, an attractive public realm, pedestrian-friendly streetscapes, defined centres and edges, and varying transport options. Facilities such as health, libraries, retail business and government services cluster around key public transport facilities and intersections to maximize convenience and

accessibility. This implies that access to health care facilities is promoted in compact city due to location, accessibility, equity which is partly addressed through inclusiveness.

It seems that the underlying assumption in sustainable urban form theory is that strategic spatial plans linked to infrastructure development can promote more compact forms of urban expansion focused around accessibility and public transport. This will lead to improved urban services that are responsive to the needs of different social groups, better environmental conditions, as well as improved economic opportunities and livelihoods.

Arguments in favour of compact cities claim that the costs of providing infrastructure in a compact city are lower due to compactness of functions. It appears that better access to services and facilities is due to high thresholds and population densities; the livelihoods of the urban poor are promoted and social segregation is reduced due to high interaction of people as they access to clustered community services (Mackenzieband & Rose, 1983). Moreover, the time and cost spent travelling from one area to another within the city is also lower. It is also argued that compact cities are less reliant on cars and minimize distances travelled and, hence, fuel use, and have less impact upon farmlands and environmental resources (UN-Habitat, 2009).

Despite some weaknesses of the theory it is still relevant to illuminate how urban forms, accessibility and public transport influence private health facilities' distribution. Informal settlements which present compactness and densification in its saturation stage seem to influence city forms and hence service delivery.

2.5 Conceptualising Accessibility to Health Care Facilities

Accessibility is a vague concept as it presents various facets. It is a slippery notion, which has been defined, and operationalized in a variety of ways (Amer, 2007). When the concept is related to health care, it can be defined as the ability of a population to obtain health care services (Unal *et al,* 2007). In this definition, the key word is ability to obtain, hence the concept of 'affordability' surfaces. Slightly differently, Litman (2011) defines accessibility as people's

ability to reach goods, services and activities[17]. In this definition, the central agenda is the ability to reach hence mobility; this situation could be individual-based conditions including physical conditions and age[18]. The term accessibility can also be related to geographical and spatial aspects. Geographical accessibility is the distance that must be travelled in order to use health facilities (Al-Taiar *et al*, 2010). In this definition the key word is distance hence urban forms matter. Spatial accessibility is referred to as availability of health care facilities in the given region and travel impedance to health care facilities outside the region (Guargliardo, 2004, Luo and Wang, 2003 cited in Unal *eta al*, 2007).

Accessibility can also be presented as the outcome of four interrelated components: a spatial component, a transport component, a temporal component and an individual component (Geurs and Ritsema van Eck, 2001 cited in Amer, 2007). While spatial aspect is largely focusing on locations; transport component consists of three elements namely the location and characteristics of the transport infrastructure like roads, railways and marine (*Ibid*). Temporal component of accessibility includes availability of activities at different moments in time and the times at which individuals are able to participate in activities (Amer, 2007). On the other hand the individual component of accessibility refers to the characteristics of individuals that influence on accessibility *(Ibid).*

Therefore, in conceptualizing spatial accessibility, the main factors that can be considered include mobility (physical movement), the quality of transport systems, affordability and land use patterns (Figure 2.3). The land use patterns (urban forms and nature of the city growth) have an influence on the distance to reach health care facilities; for instance urban sprawl, linear urban development which follows transport corridors.

Spatial accessibility helps to identify areas underserved as well as area that are at the risk of being underserved (Unal *et al*, 2007). Hence the concept of accessibility is also connected to the concept of geographical equity which will be discussed in the next section.

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[17] Goods, services and activities are referred to opportunities by Litman (2011).

[18] Author's interpretations, that ages (elderly and Children) can limit mobility. On the other hand physical condition of a person such as disabilities and pregnancy may limit mobility

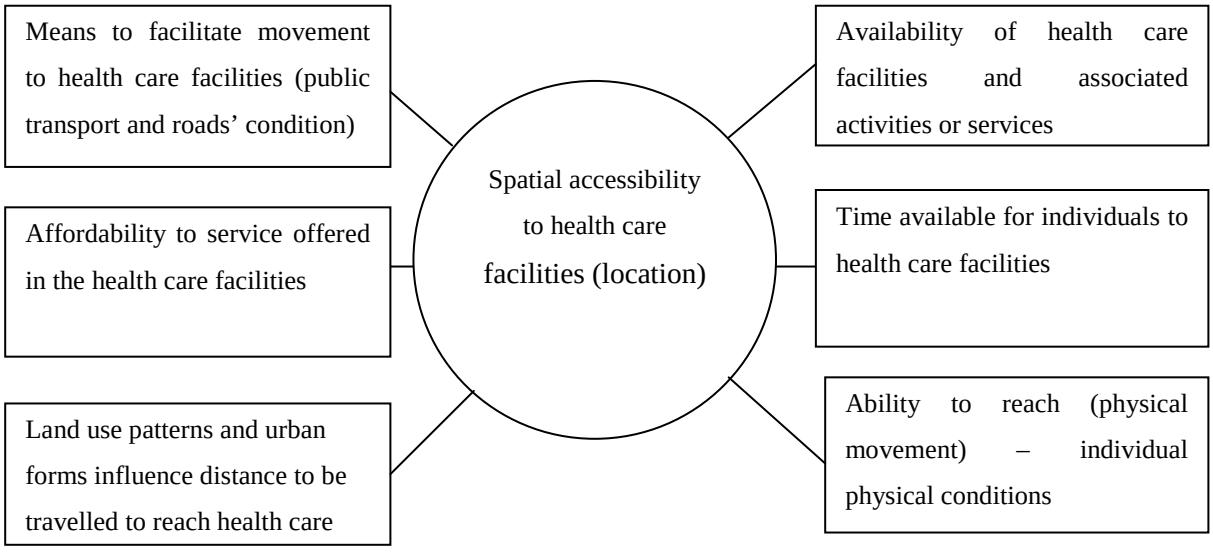


Figure 2. 3: Conceptual framework for understanding spatial accessibility to health care facilities

In relation to the community in urban areas, spatial accessibility can provide the general picture of the population which are well serviced with health care services and the segment which are severely affected. In this situation, the existing spatial disparities of spatial distribution of health care facilities can be understood for effective intervention.

2.6 Health Equity Principle and its Application to Health Care Services

Equity in health care is not a new idea. It was one of the key principles of the 1978 Alma Ata Declaration on Health for All (GEGA, 2003)[19]. It is a fundamental aspect of social justice in allocation and distribution of resources.

Equity is a slippery concept. It is loaded with concepts in which it is hard to provide universal single definition. For instance, Merson *et al,* 2001) define equity as the "distribution of the costs of health services and the benefits obtained from their use between different groups in the population". From this definition, the question of who pays for the health services and who receives benefits provide, to some extent, evidence on the degree of equity achieved by the particular health system.

[19]GEGA stands for The Global Equity Gauge Alliance, the report published by the Global Equity Gauge Alliance and Health Systems Trust, March 2003, Durban 4001, South Africa.

On the other hand, health equity is defined "as *the absence of unfair and avoidable or remediable difference in health among population groups defined socially, economically, demographically and geographically"*(WHO (2005)[20]. From this definition emphasis is given to fairness in health care for all. The challenges facing this definition is that it does not touch who, how and the cost involved in ensuring access to health care for all including disadvantaged group and those living in underserved area.

Equity can be expressed in three ways namely horizontal equity, vertical equity and geographical equity. Horizontal equity refers to equal treatment of equals (Merson *et al*, 2001:519). With respect to financing and resource allocation, the horizontal equity implies that charge levied by all agents or providers for a particular goods or services should be the same for households with equal ability to pay regardless of social-economic differentiation such as gender and marital status. With respect to allocation of resources, horizontal equity requires that services purchased for similar groups for instance elderly should be the same in different geographical areas. In providing health care services, horizontal equity ensure that there is equal access for equal need for instance equal waiting time for treatment for patients with similar conditions. Therefore, horizontal equity is assessed by extent to which there is variation in contribution levels among those with similar ability to pay *(Ibid).* With respect to provision of health services, horizontal equity means that individuals with the same health condition should have equal access to health care.

Vertical equity is based on the principle that individuals who are equal in the society should be treated differently *(Ibid).* From this definition, vertical equity in the financing and purchasing of health services means that consumers should be charged for the same goods or services according to their ability to pay. With respect to allocation of resources, services purchased should be reflect the different groups for such as elderly versus children; and with respect to provision of health care services, unequal treatment for unequal need such as those with trivial versus serious condition.

[20]Cited in Kjellstrom and Mercado (2008) in the Journal of Environment and Urbanization on the City governance and citizen action, Volume 20 No. 2.

Equity has also been explained geographically. In this way, equity is considered in two different perspectives namely geographical distribution of resources and the principles behind priority setting. In this regard, the extent to which equity is realised is analysed by focusing on the utilisation of health services. Here the health care facilities are distributed according to the ability to benefits or use of the health care services. The distribution of health care facilities can also be made as close as feasible to an equal distribution without a need to define the ability to benefit but by deviation from the average level of health in the population *(Ibid).*

Although equity has been central agenda in health policy, urban planning and in political sphere, many countries do not routinely monitor equity in health care (GEGA, 2003). Equity is necessary as it provides safety net for disadvantaged groups such as elderly, children, disabled, and the poor who cannot afford to pay for health care services.

Therefore, different dimensions can be applied to address equity in health services including access to services, patterns of utilisations, health outcomes, financing of health services, distribution of resources and allocation of services and related facilities. This study does not address all aspects of equity but focus on distribution of health care facilities, patterns of utilisation (choices) and hierarchy of health care facilities which justify efficiency, quality and equitable access to health care benefits.

2.7 Concluding Remarks.

Reviews of theories and conceptualisation of accessibility and equity have provided conceptual framework for analysing the private health care facilities. The privatisation in neo-liberal ideology is one of the key factors contributing to the existence of private health care providers and the new roles of government. The central place theory with its hierarchy concept illuminates on the urban development patterns and spatial distribution of health care facilities. The theory of sustainable urban form illuminates on urban forms, location, accessibility and inclusiveness. It seems to promote equity while compactness concept promotes access to health care facilities, reduces travel costs and facilitates mixed uses. The next section reviews various literatures related to urbanisation and challenges encountered in health care service delivery.

CHAPTER THREE

RAPID URBANISATION AND SERVICE DELIVERY

Rapid urbanisation and its consequences on services and infrastructure provision in cities of developing countries have drawn attention of many scholars due to various reasons. Informal urban expansion characterised by lack of community facilities such as health care, poor physical accessibility and water supply jeopardise the whole question of sustainability in whatever form. The underlying fear is how can government, which is already economically and technologically starved like in Sub-Saharan region mobilize resources to meet the rapidly growing demand. This section offers an overview of rapid urbanisation in general and Dar es Salaam city in particular. The centre of the discourses lies on the conception of rapid urbanisation and its spatial consequences on urban service delivery.

3.1 Overview of Rapid Urbanisation

The term urbanisation is not new in the discourse of cities' growth in the world. However, rapid urbanisation is a phenomenon of 20th Century (FIG Commission3, 2010). In the beginning of 20th Century (in 1900), only 12.5% of people in the World lived in urban areas (Gugler, 1997). By 1950, the proportion of population living in urban increased to 29% and in 2007 it reached 50% (FIG Commission3, 2010). Already more than 50% of global population lives in urban areas (Kjellstrom and Mercado, 2008). It is estimated that 4.9 billion people which is about 60% of global population will live in urban by 2030 (FIG Commission3, 2010). Although majority of people in developing countries still live in rural areas, massive urban population growth takes place more in developing countries than in developed countries (Figure 3.1).

For the first time in history, the urban population in developing countries surpassed that of the developed countries in 2007 *(Ibid).* As such, rapid urbanisation is still a key issue in 21st century where the shifting of population from rural to urban is now common in developing countries (Gugler, 1997). As developed countries have already been almost fully urbanized and their

population growth is nearly stagnating, the gap in the number of urban inhabitants between the developed and developing countries will continue to widen (Figure 3.2).

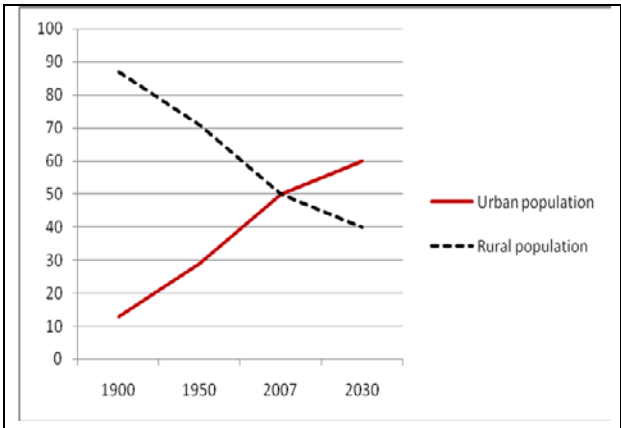


Figure 3. 1: Global Urbanisation (1900-2030) (Source: FIG Commission, 2010)

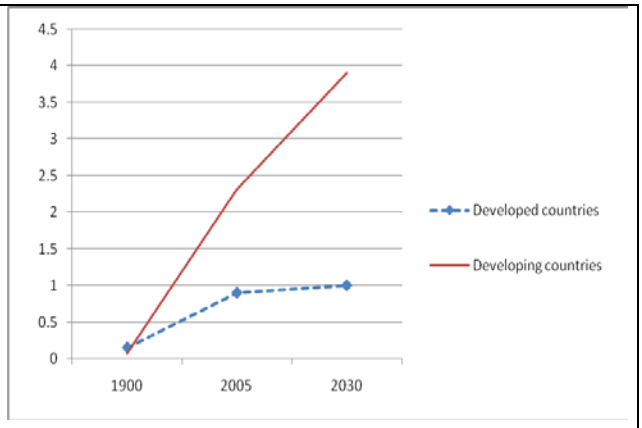


Figure 3. 2: Comparison of urbanisation in developed and developing countries (1900 - 2030) (Source: FIG Commission, 2010)

However, rapidly growing urban populations have to find accommodation, urban services like health care, education, water, energy, sanitation, transportation and recreation. In addition, rapidly growing urban populations have to find employment in urban labour-markets already characterized by widespread unemployment and underemployment. Thus, these challenges cut across almost all activity sectors in governments; professionals, community, politicians, environmental activists and urban managers to mention a few. The central issue is on how to meet the needs of increased population and at the same time improve existing infrastructure and urban services which are being constantly overstretched by the increasing population. This matter is worth noting as many governments in developing countries are ill-equipped to effectively respond to the emerging challenges of rapid urbanisation.

3.2 Rapid Urbanization in Africa

While Africa is the least urbanized continent, its rate of urbanisation is the highest in the world (Tannerfeldt and Ljung, 2006; UN-BABITAT, 2008). The urban growth rate was 3.3% between 2000 and 2005 and fertility rates in 2007 were 4.7% compared to the global average of 2.5% *(Ibid*). The presence of high concentrations of people and investments in the single largest city of its countries, is the most distinguishing urban characteristics. Urban expansion in many African cities takes place largely in peri-urban areas (UN-HABITAT, 2009). This situation is further accelerated by reclassification of villages adjacent to urban periphery to form new informal

urban settlements. Other factors that contribute to the rapidly population growth in cities in Africa includes rural-urban migration, natural population increase, ethnic conflicts, civil strife and wars play significant role in urban population growth (Tannerfeldt and Ljung, 2006).

Although several literatures show that natural population increase has been the main cause of urban growth in many cities of developing countries, rural urban migration is still dominant in countries where the level of urbanisation is very low like Africa (UN-HABITAT, 2008). Poor services and decline in agricultural production due to intermittent rainy season, loss of soil fertility due to environmental degradation and poor farming technologies in rural areas have exemplified rural poverty (Tannerfeldt and Ljung, 2006). Such situation has pushed many villagers to urban areas to seek alternative income generating activities. Immigrants from rural areas expect to get new jobs, a descent life and enjoy urban amenities. However, such expectations have been often hard to meet subsequently many immigrants have continued to remain poor in urban areas and fail to afford social and recreational services that are offered in cities *(Ibid).*

Forced movement of people provoked by drought, famine, ethnic conflicts, civil strife and war also contribute to rapid urbanisation *(Ibid).* Vivid examples include Luanda, Khartoum, Monrovia, Kinshasa and Mogadishu. Whereas Luanda in Angola received more than 2 million people between 1992 and 1994 as a result of armed conflicts, Khartoum in Sudan received 1.6 million people between 1990 and 2000, Monrovia in Liberia received 241,000 and Kinshasa in DRC received 1.4 million people in the same period *(Ibid).*

Urbanisation in Sub-Saharan Africa[21] has been a critical issue in urban planning. It seems to have more practical problems than opportunities. The Sub-Saharan Africa has been urbanised in absence of a stable economic basis to sustain its growth; the so called urbanisation under poverty (Kombe and Kreibisch 2000; Kyessi, 2002; Sheuya, 2004). Other critical characteristics of urbanisation in this region include weak government institutions to manage urban growth, poor urban infrastructure and services and tenure insecurities due to informalities in land development (Kyessi, 2002). In line with this situation, failure of governance in cities has resulted in the

[21] According to Population Reference Bureau (USAIDS, 2011),Sub-Saharan Africa includes all countries of Africa except the northern African countries of Algeria, Egypt, Libya, Morocco, Tunisia and West Sahara

growth of informal settlements and slums that constitute unhealthy living and working environments for about one billion people (Kjellström and Mercado, 2008). Poor accessibility in informal settlements and slums will continue to affect location and distribution of community facilities in general and health care facilities in particular. This is one of the critical challenges government faces in managing cities growth.

3.3 Rapid Urbanisation in Dar es Salaam City

Dar es Salaam is located between 6^0 34' and 7^0 10' south along Indian Ocean eastern side of Tanzania (Kironde, 1995). It is considered one of the fastest urbanising cities in Sub-Saharan Africa (Olofsson and Sandow, 2003). It receives between 100,000 and 300,000 persons every year where most of them live in informal settlements *(Ibid)*. It accommodates 10% of the total population in Tanzania and about 40% of total urban population in the country[22]. Its current population is estimated at 40 million inhabitants based on the UN-Habitat (2010).

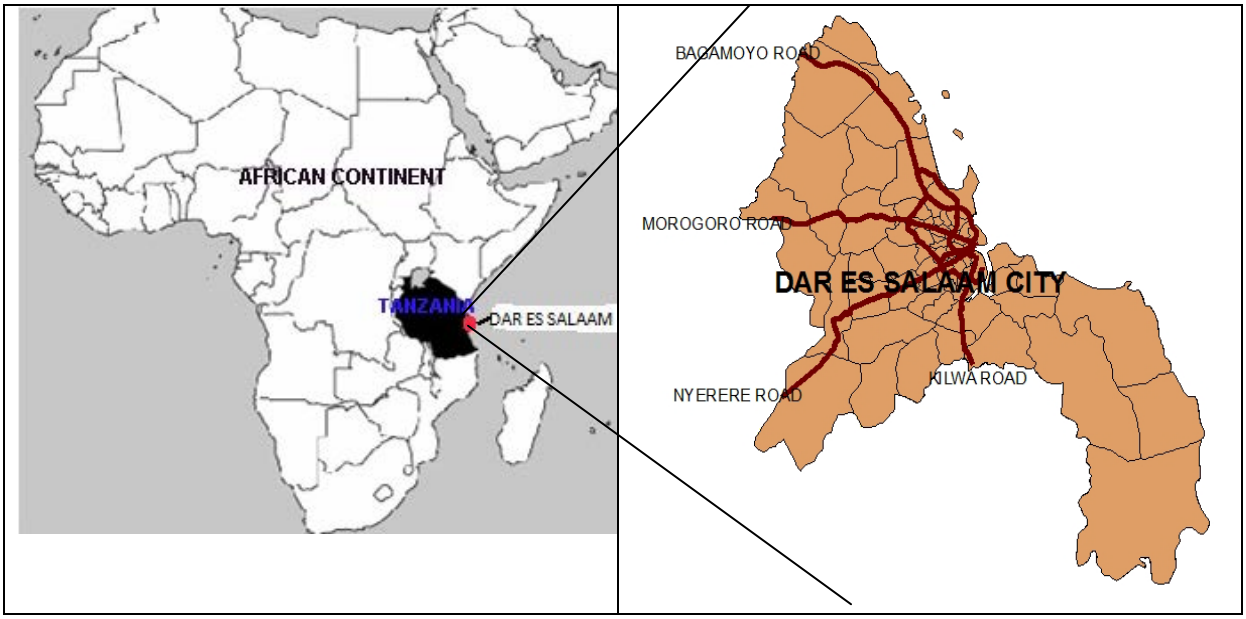


Figure 3.3: Regional and National Setting (Source: modified from NBS, Tanzania Wards´ map, 2002)

It is among 26 administrative regions of Tanzania. It covers an area of 1,393 square kilometres making it geographically the smallest region in Tanzania Mainland.

[22] Estimated population based on UN-HABITAT (2008)

3.3.1 Population growth

Analysis of population growth trends since 1891; provide empirical evidence that rapid population growth is the phenomenon of post-independence. Rapid population growth in Dar es Salaam has been taking place since 1967; the period after Arusha Declaration (Figure 3.4). After the Declaration, about 10 years later that is from 1967 to 1978, population growth tripled due to massive rural-urban migration following the relaxation migration restrictions by the government and spatial city expansion hitting 11,331 hectares (Lupala, J., 2002). This magnitude of population growth in Dar es Salaam is almost identical to the overall urban population growth in Tanzania which had increased from 2.7 million to 10.4 million in the same period *(Ibid).*

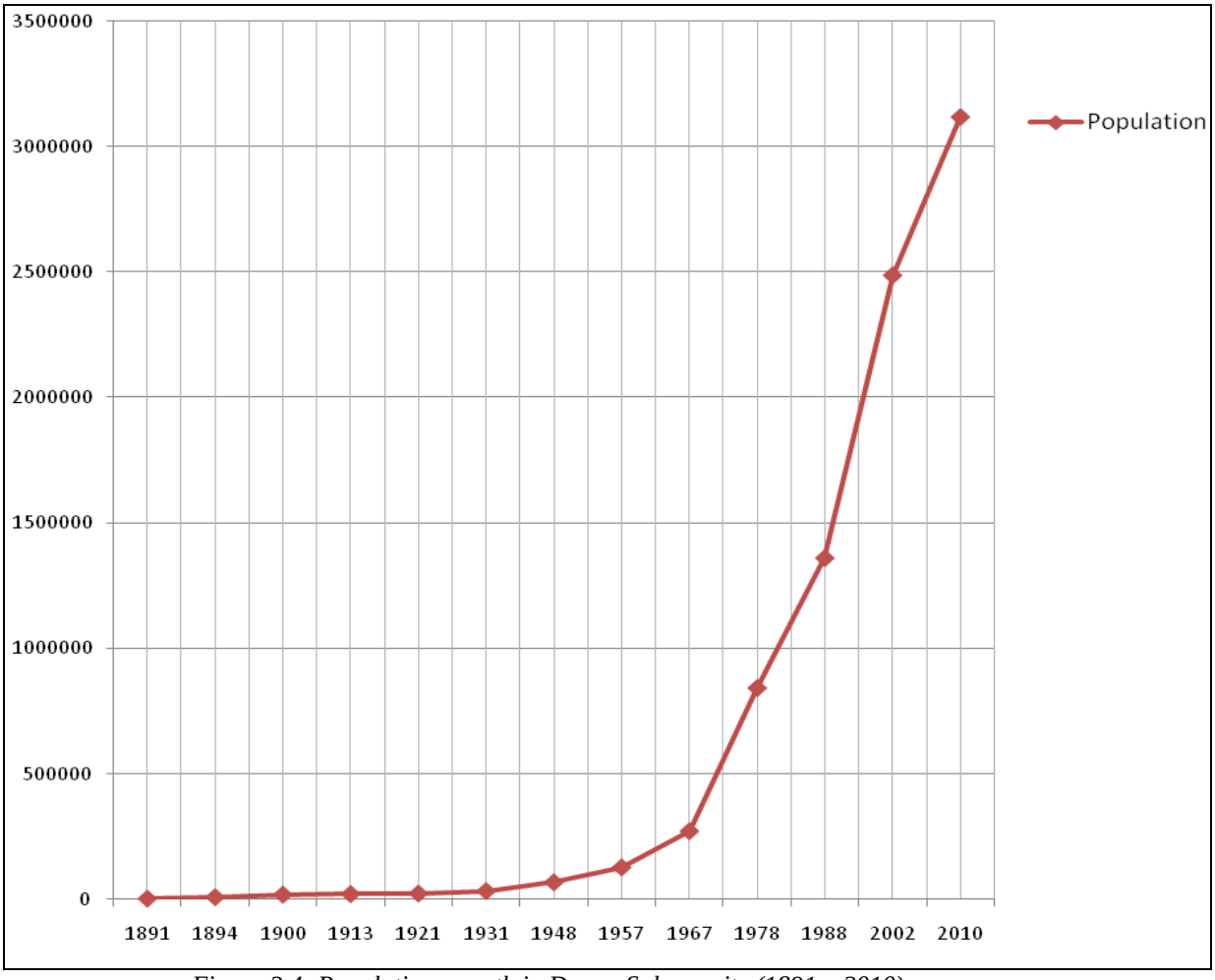


Figure 3.4: Population growth in Dar es Salaam city (1891 – 2010)

Source: Kironde (1995); National Population Censuses of 1967, 1978, 1988 and 2002 and URT (2006)[23]

[23] National Population Projections from 2003 to 2025, Base year is 2002 Population Census; National Bureau of Statistics, United Republic of Tanzania, 2006

Population is highly concentrated in sub-wards that are situated in the inner city (Figure 3.4). These wards, due to high population densities, are geographically small as compared to the wards in peri-urban areas. This concentration of services in the city centres implies that wards in the inner city also benefit from urban health care facilities among other urban services.

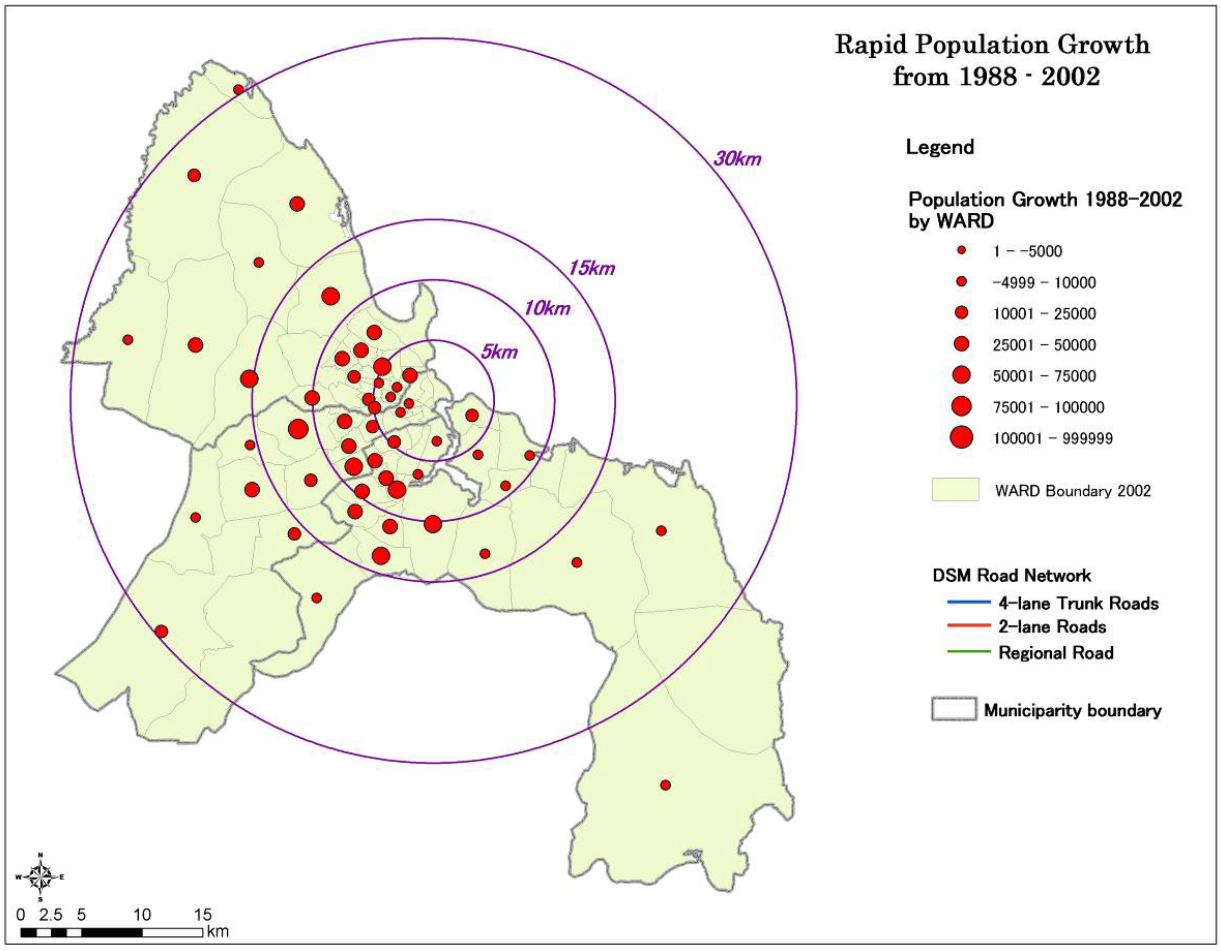


Figure 3.5: Population growth and distribution in Dar es Salaam between 1988 and 2002 (Source: JICA Report, 2007)

3.3.2 Physical expansion of Dar es Salaam city

Generally, rapid physical expansion of Dar es Salaam city is a reflection of rapid population growth which has steadily spread over to its surrounding land. While in 1891, the city with about 4,000 inhabitants had only extended to 2 kilometres from the Indian Ocean into the hinterland, in 1980 the city has extended to 14 kilometres and by 2001 the city has expanded to a radius of 30 kilometres accommodating over 2.2 million inhabitants (UN-HABITAT, 2008). The consequences of rapid urbanisation have been proliferation of informal settlements,

environmental degradation due to informal land subdivisions for housing even in hazardous lands, mixed incompatible land uses, poor accessibility in terms of road network and poor storm water drainage hence frequent floods during rainy seasons in most parts of Dar es Salaam city. The land converted to urban functions between 1980 and 2002 (22 years) was approximately the same size as the land developed for urban functions during the previous 89 years (1891 to1980[24]).

Informal urban expansion surpass formal urban expansion in Dar es Salaam

In the 1960s, a large area was planned and a few informal settlements emerged beyond 6 to 12 km radius *(Ibid).* By the end of 1978, the extent of urban growth was 6 km along Kilwa road, 12 km along Bagamoyo road, 12km along Morogoro road and 14 km along Pugu road so that spatial growth of the city is concentrated along the main transport corridors *(Ibid).* However, the massive land development is taking place outside a formal planning machinery. As documented by Kyessi (2002), there were 10 informal settlements in 1962, that number increased to 14 in 1969, 25 in 1979 and about 54 in 1992. Similarly the number of persons living in informal settlements has been increasing. In the late 1970s the ratio of formal to informal housing was 1:5 (Kyessi, 2002) citing Mghweno (1984). The percentage of persons living in informal settlements increased from 60% in 1979 to 70% in 1988 (Kironde, 1995; Kombe, 1995).

Informal settlements became and continue to be a serious urban management issue in Dar es Salaam. In 1968, a comprehensive Master Plan for Dar es Salaam was prepared and reviewed in 1979 largely in order to address the growing demand for housing land, proliferation of informal settlements, deteriorating living environment and inadequate social and infrastructure services. However, 1979 Dar es Salaam Master Plan could not address the issue of informal settlements. This is evidenced by 70% population in Dar es Salaam living in informal settlements by 1988 *(Ibid).*

In realizing the haphazard expansion of Dar es Salaam city, due to informal settlements expansion as the city grows outwards, the government attempted various efforts ranging from slum clearance forthwith after independence in 1960s, self-help, squatter upgrading and site and

[24] Calculation made based on the findings from Lupala, J. (2002) and UN-HABITAT (2008).

services programmes in 1970s to early 1980s, to the ongoing 20,000 Plots Project[25] in 2000s. The later intended to, among others, pre-empty informal settlements development in peri-urban areas and improve services by surveying more plots, identifying and zoning special areas for satellite towns that will improve services provision in peri-urban settlements. Even though, development of informal settlements continued.

In 2000, government appeared to surrender on fighting with informal settlements when it prepared human Settlements Development Policy (2000) and New Land Act No.4 and 5 of 1999 for urban and rural respectively that recognizes the existence of informal settlements and customary land tenure. Through these planning instruments, government pledges to upgrade and regularise informal settlements, recognize land value and offer compensation to both properties on land and land itself. Community Based Organisations (CBOs) should be used when regulation of informal settlements is done. The fundamental goal of regularisation is to improve tenure security and provide the missing urban services such as community facilities, roads and recreational facilities. However, due to limited resources, regularisation could not cover all informal settlements in Dar es Saam. The focus has been those located in the inner city such as Hanna Nassif, Manzese, Sinza, Mwananyamala, Tababata to mention a few. The regularisation project has not yet reached many informal settlements especially in peri-urban areas.

In the1990s, the Government requested UN-HABITAT and UNDP to assist in reviewing of Dar es Salaam Master Plan of 1979 as the 20 year period had expired. However, the need to review the Master Plan was prompted by the fact that it had failed to guide the city's growth and development as anticipated (SUDP, 2002). Instead of reviewing the Master Plan, it was agreed to introduce a new Environmental Planning and Management Approach (EPM), a bottom up approach which would develop sustainable solutions to the city's environmental problems.

The Sustainable Dar es Salaam Project (SDP) which is one of the global Sustainable Cities Programmes (SCP) which started in the country in 1992, was seen as a turning point in the

[25] 20,000 Plots Projects was initiated by the Ministry of Lands Housing and Human Settlements Development in order to pre-empt informal settlements development in peri-urban areas. The project started in Dar es Salaam as a pilot area where over 40,000 plots have been surveyed so far in peri-urban area and sold to land developers (Source: Project Manager, Ministry of Lands, Housing and Human Settlement Development, 2007)

planning approach which could lead to effective management of city development. It departs from the comprehensive master planning approach in terms of its rigidity in responding to changing social, economic, political and environmental conditions, and exclusion of key stakeholders in a planning process. Also, it considers comprehensiveness in Master Plans as a weakness, since the master plan does not recognise limited resources for planning and implementation of development projects. In spite of the important points raised, professionals and practitioners are still debating on which approach can bring the best results in urban and regional development planning and management.

The SDP, apart from identifying and addressing nine cross cutting and most pressing environmental issues including servicing informal settlements, prepared a land use plan for the city and recommended satellite towns to support existing and proposed development in the peri-urban areas (SUDP, 2005). However, none of the centres have been developed. They have remained as long term plans for improving service distribution in Dar es Salaam city. Overall, the adoption of the EPM approach in planning led to several positive outcomes for the city of Dar es Salaam, such as policy changes in planning and management, increased stakeholders' participation, and strengthened partnership with private and popular sectors in project implementation. However, the SDP could not provide comprehensive framework implementable for guiding city's growth, coordinate different land uses in the city and pre-empt informal urban expansion as anticipated.

Privatisation which aimed at involving individuals, NGOs, and religious institutions in delivering social services, has been the key strategy in improving urban services in SDP. The SDP was actually the turning point in urban planning where local authorities plan and manage the growth and development of the city in partnership with private and popular sectors. At the first time in history, the city wide consultation was conducted drawing participants from key city stakeholders (public, private and popular sectors) to identify and discuss key cross cutting urban development issues and jointly formulate strategies to address them.

3.3.3 Peri-urbanisation: Present and future challenges in community service provision

UN-HABITAT (2009) indicates that about 40% of future urban growth will take place in peri-urban area in most cities of developing countries; Dar es Salaam is no exception. Similarly,

Lupala (2002) observed that despite the rapidly growth in peri-urban areas of Dar es Salaam, the respective local authorities and central government has been very weak in regulating land use development. Largely, land subdivision is taking place informally and has been governed by local institutions at the grassroots. As aresult, peri-urban zone has been potential area for creating new informal settlements. He also noted that while the city population has been growing steadily, the provision of community services like health care and education have hardly increased and settlements where infrastructure services are available, maintenance has been poor. Peri-urban zone of Dar es Salaam has been mostly hit as it receives immigrants from both the inner-city and the upcoming regions *(Ibid).*

Peri-urban land development project[26]

Peri-urban land development is an initiative pursued by the government through the Ministry of Lands, Housing and Human Settlement Development to improve the hierarchy of service centres and access to community facilities. The project, which started in 2006, aimed at providing 6 satellite centres in Peri-urban areas of Dar es Salaam. These satellite centres include Luguruni (Pilot area) and Bunju in Kinondoni Municipality; Kongowe, Mji Mwema and Kimbiji in Temeke Municipality; Pugu Kajiungeni in Ilala Municipality.

The proposed centres intend to provide higher order services such as hospitals, banking facilities, supermarkets, shopping centres, postal offices, cemeteries, recreational facilities like sport field and parks. The areas for the proposed centres have already been planned and surveyed and the opportunities for investments in different services are now opened to the private sector. This is an example of privatisation in land development, where the government plans and surveys plots for community services and sells them to private investors. This is a new approach which has not been the case before when government was the sole service providers. The government in this project, attempts to mobilise funds outside the public sector to implement physical plan. However, as noted, peri-urban land development project is still in its initial stage (pilot) in Luguruni. This implies that peri-urban residents in particular continue to suffer from poor urban services.

[26]In-depth interview made with Secretary, Peri-Urban Development Project in March 2011 in the Ministry of Lands, Housing and Human Settlement Development.

3.4 Concluding Remarks

This Chapter has presented an overview of rapid urbanisation in developing countries with specific focus in Sub-Saharan Africa. Dar es Salaam has been taken as a key example in illustrating empirically rapid urbanisation and its consequences on city expansion, infrastructure and service delivery. The key message is that despite various efforts to manage rapid growth in Dar es Salaam city including privatisation of urban services, population increase has outstripped the city's capacity to address the growing demand for health care, shelter, water, roads, sanitation, public transport and solid waste disposal to mention a few. The following Chapter presents the research methods used for data collection and analysis in this study.

CHAPTER FOUR

RESEARCH METHODS

This study applies case study strategy in attempting to address the research problem. Various literatures on research methodology have been reviewed to get an insight about various research methods and the necessary conditions for selecting appropriate research method and design.

4.1. Selecting Research Methods

The research methods to be used in addressing a particular research problem is determined by three conditions, namely the types of the research question posed, the extent of control an investigator has over actual behavioural event and the degree of focus on contemporary as opposed to historical events (Yin, 2009). It is from these three conditions which suggest whether an investigator choses experiment, survey, archival analysis, history or case study.

The purpose of this study is to get an in-depth understanding of the research phenomenon that is the location and distribution of private health care facilities in a rapid urbanising context. As this study focuses on contemporary events, no control is required over the event under investigation, and the nature of the research question is largely based on "how". Hence the Case Study Method is the appropriate to the study. The "case" peri-urban areas and the "unit of analysis" is private health care facility (private dispensaries, health centres and hospitals).

4.2 Research Design

Research design is defined as the logic that links the data to be collected (and the conclusions to be drawn) to the initial questions of study (Yin, 2003). Kothari (1992) in Lupala (2002) assets that research design concerns logical sequence for data collection and analysis of data and its ultimate conclusions in relation to the research question. Similarly, Bryman (2004) argues that research design provide a framework for the collection and analysis of data. All these definitions

converge into common ground namely logical sequence that link research question, data collection, data analysis, findings and conclusion.

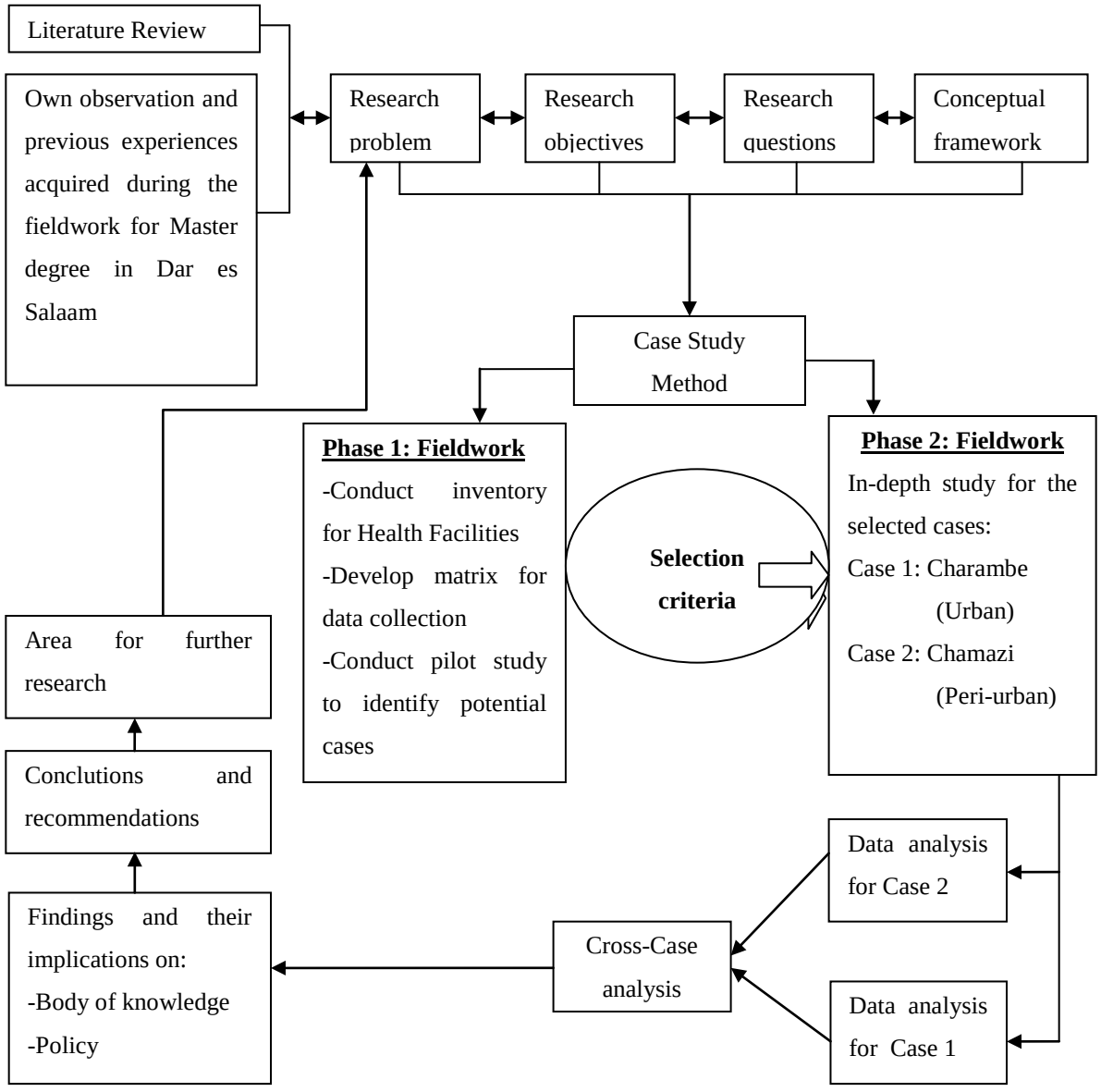


Figure 4.1: Research Design

Having reviewed various literatures about the research design, this study defines research design as the components of the research and their interplays in attempting to address the *what question*, *the why question* and *the how question*. Whereas the question concerns the "what" is the subject

matter that is the research issue, the "why" question provides justification of the study and the "how" question includes methods to address the initial research question.

As two administrative Wards namely Charambe and Chamazi are systematically selected for in-depth study, it is important to start by providing the administrative set-up of Dar es Salaam city and the selection criteria.

4.3 Delimiting Administrative Units in Dar es Salaam

Administratively, Dar es Salaam city is composed of three municipalities namely Ilala, Kinondoni and Temeke. Each Municipality is made up of Wards; the Wards are composed of Sub-wards. There are 73 wards in Dar es Salaam City: 22 wards in Ilala Municipality, 27 wards in Kinondoni Municipality, and 24 wards in Temeke Municipality (Figure 4.2).

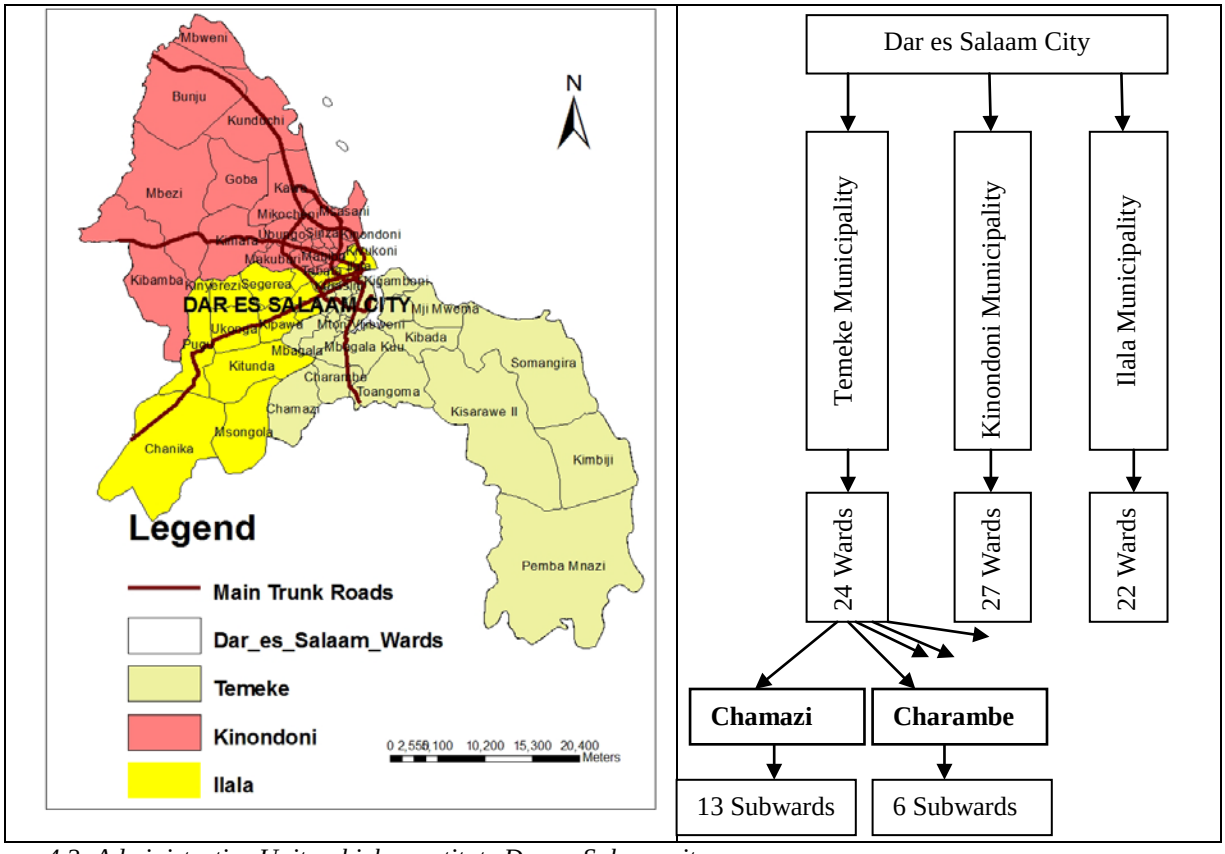


Figure 4.2: Administrative Units which constitute Dar es Salaam city

The two cases (Chamazi and Charambe) are selected for in-depth analysis from Temeke Municipality. The criteria for case selection are discussed in the subsequent sections.

4.4 Multiple Case Study Method

The relevance of the cases to the research problem, the possibility to provide opportunities to learn about the complexity and context are among the central issues in deciding cases to be selected in this study (Stake, 2006:23). As the research issue in this study is on the location and distribution of health care facilities in peri-urban areas with assumption that "private health care providers shy away from per-urban and less accessible areas and concentrate in the most accessible urban areas"; two cases one from urban and the other from peri-urban will try to prove this assumption.

> "An important reason for doing the multicase study is to examine how the program or phenomenon performs in different environments" (Stake, 2006:23).

In line with Stake, the author, among others, seeks to understand how privatisation of health care service delivery has contributed to location of private health care facilities in peri-urban areas and what is the discrepancy of distribution of health care facilities between urban and peri-urban and underlining reasons.

In line with these augments, the design of this study integrates four tests that are commonly used to establish the quality of any empirical social research namely Construct Validity, Internal Validity, External Validity and Reliability (Yin, 2003). Validity is the most important criterion of research (Bryman, 2004).

There are about four types of validity namely measurement or construct validity, internal validity, external validity and ecological validity *(Ibid).* Kidder and Judd (1986) cited in Yin (2003) describe construct validity as established correct measures for the concepts being studied. Internal validity is concerned with the question of whether a conclusion that incorporates a causal relationship between two or more variable holds water (Bryman, 2004). On the other hand external validity is concerned with the question of whether the research findings are generalisable beyond the specific research context *(Ibid).* Reliability demonstrates that the operations of a study such as the data collection procedures can be repeated with the same results. Data collection matrix was prepared in order to focus and collect relevant information to

address the research problem. It consists of specific research objectives, key research variables, sources of information and data collection instruments. In this way it was easy to cross-check whether the information collected were related to the stated research variables.

Triangulation was also done where data which were collected from different sources (household survey, official interviews, focus group discussion and key informants), were compared to see the convergence and divergence. Where convergence was observed, the follow up questions were established and further investigation was carried out. Information such as demographic data was compared from the previous records to see the general trends.

4.5 Research Protocol and Data Access: Procedures Followed

When the time for the fieldwork came, it happened that there were procedures that had to be followed in order to access data in different government institutions. As agued by Stake (1995), almost always, data collection is done on somebody's home ground. Similarly access to data during the fieldwork was possible when permission was granted from respective institutions. As research activities took place in Dar es Salaam city, requests were made for permission to conduct research on private health care facilities in Dar es Salaam.

4.5.1 Seeking permission: Regional authority down to the local governments

During the field data collection stage, various stages were passed as pre-requisite condition for data access. The process started from the Regional Administrative Secretary, to Municipality, to Wards and Sub-wards governments at the grassroots. Therefore, it is worth noting this process as it had implications to the whole research process in terms of time, labour and reliability of data to be collected. Without permission from respective local authorities, it could be hard to proceed with data collection.

Following this recognition, an introduction letter was written by my employer, Ardhi University, to Dar es Salaam Regional Administrative Secretary (RAS) in order to get permission to conduct research in Dar es Salaam. This was the beginning of engaging with the public bureaucracy hence time consuming.

Upon receipt of my letter, RAS wrote another introduction letter, then from his office, to the three Municipal Directors of Kinondoni, Temeke and Ilala requesting them to provide required

assistance to conduct my research. As the two cases which were selected for in-depth investigation fall in Temeke Municipality, the letter was sent to the Temeke Municipal Director who further channelled the letter to the Municipal Medical Research Officer. It was important to make a follow up in each stage in order to make sure that the request was still in the process and to act immediately when permission was granted. As expected, it took about a week to get through regional administration and about three weeks to get through all three sections in the Municipality.

As the follow up was made, it was noted that my letter was in the Municipal Medical Research Office and I had to appear in the office to explain what my research was about. To ensure ethical fulfilment, my research proposals and research questions were submitted for scrutiny and record. The key argument was that health is sensitive issue and research on it should be carefully checked to prevent unethical issues that might emerge in the course of data collection.

Finally, two letters were written from the Office of Municipal Medical Doctor to the respective administrative Wards' Executive Officers in Charambe and Chamazi which were the cases for in-depth study. These letters were further forwarded to each sub-wards' chairman for action. I also received copies of the letter as evidence that the permission was granted to conduct the research in the respective areas. These copies were also required by some of the households during households' survey in Charambe and Chamazi Wards.

It was also not easy to conduct interviews from the private health care providers without the letters. Although, this process was cumbersome, yet it was crucial for data access to individuals, public and private institutions which were relevant sources of information in respect to the research questions.

4.5.2 Pilot study and overall case selection process

To get potential cases for further scrutiny, rapid appraisal was made as a pilot study in Dar es Salaam city. However, given the population size of Dar es Salaam city, its geographical coverage and concentration of health care facilities, it was important to get an inventory of health care facilities which shows the name of the facilities, ownership, types and specific location.

In collaboration with health officials at the city level, the list of all health care facilities in Dar es Salaam was obtained showing public and private clinics, dispensaries and hospitals with their

specific locations namely Wards and Sub-Wards in each Municipality. This inventory made the pilot study easier and effective as categorisation of levels of health facilities and ownership as well as counting and ranking administrative wards according to the number of health care facilities. As such, administrative Wards and Sub-Wards which have high concentrations of private health care facilities were identified. These were basically the potential cases for study. Besides the identification of potential cases, this categorization and ranking was actually the beginning of data analysis hence an initial stage of attempting to address the research issue.

In order to save time and to be focused, a data collection matrix which presented research variables in each research objectives, data collection instruments and sources of information was made (Table 4.1). In other words, the pilot study was guided by the research variables. The physical survey started between 27th August and 25th September 2010 with the aid of base maps of Dar es Salaam including aerial images.

Apart from hiring two research assistants, it was also crucial to hire a vehicle in order to go to the remote sub-wards where public transport was rare such as Kimbiji, Pemba Mnazi, Ununio, Kibwegere and Mpiji Magoe. Generally, the urban administrative wards which were surveyed for rapid appraisal included Kisutu, Sinza, Kunduchi, Kawe, Mbezi and Charambe while the peri-urban settlements which were surveyed included Kibwegere, Ukunguni, Kibamba, Kiluvya (in Kibamba ward); Mpiji Magoe (in Mbezi ward); Kimbiji (in Kimbiji ward); Msufini and Mbande (in Chamazi Ward), and Ununio (in Kunduchi ward).

Table 4.1: Data collection matrix

Research objectives	**Key Research variables**	**Data collection instruments**	**Source of data**
To map existing health care facilities in urban and peri-urban areas in order to compare their location and distribution patterns	-Location -Distribution	-Base maps -GPS	-MoHSW[27] -Dar es Salaam City Council -Ward and Sub-Ward offices
To identify factors which determine location and distribution of private health care facilities	-Demography -Accessibility	-Interview -Previous demographic data -Observation -GIS	-National Bureau of Statistics -Wards and Sub-ward offices in the case study areas
To explore motivations which promote private health care providers.	-Motivation/ -Incentives (Subsidy)	-Interview with owners of private health care facilities -Official interviews	-MoHSW -Owners of private health care facilities
To analyse how emerging distribution patterns influence hierarchy, access and equity in health care service delivery	-Distribution -Hierarchy -Equity	-Observations -Households' survey -GIS	-MLHHSD[28] -Households -Sub-wards -Observations

4.6 Criteria for Selecting Cases for In-depth Study

According to the nature of the research question, the following were the key criteria for case selection arranged in the order of priorities**:**

1. Areas where there is a high number of private health care facilities; this is regarded as information rich cases. In peri-urban areas, a ward with private health care facilities was preferable in order to understand whether the health care providers share the same motivation as their counterpart in urban area or there are other factors for their sustenance in peri-urban area.

[27] MoHSW stands for Ministry of Health and Social Welfare
[28] MLHHSD stands for Ministry of Lands, Housing and Human Settlements Development

2. Areas with rapid population growth and relatively big population size. This is an important criteria as types and level of health care facilities are provided based on population size in the given geographical area.
3. Areas that exhibit high dynamics in land uses as results of rapid urbanisation, thus unplanned areas are most preferable.
4. Areas which are easily accessible by the available means of public transport.

References were made to the health care facilities' inventory, the previous national population census by Wards in 2002 and land use map of Dar es Salaam in 2008. It was also worthy considering administrative wards, which could be reached easily with available means of transport taking into account that most areas in peri-urban Wards are not easily accessible especially during rainy season. One of the reasons for poor accessibility is the poor road network (earth roads) and inadequate public transport. Other criterion was originality of the ward (history, data availability); some of the wards in peri-urban areas are new and few have data records especially in relation to population dynamics, administrative set-up and available services.

However, it is worth noting that unlike probability sampling quantitative research which aimed at generalisation to the population which it presents, case study applies a purposeful sampling which aimed at in-depth understanding of phenomenon in question (Flyvbjerg,2001; Stake, 1995). Similarly, (Patton, 2002:46) argues that:

> "Information rich cases are those from which one can learn a great deal about issues of central importance to the purpose of the research, thus the term purposeful sampling".

Based on the inventory of health care facilities and pilot study, the wards with few private health care facilities were eliminated. A total of 73 Administrative Wards were recorded in Dar es Salaam with about 390 dispensaries (313 were private), 29 health centres (23 were private) and 31 hospitals (19 were private). 84 Wards which have relatively few numbers of private health care facilities were eliminated. Table 4.2 shows the remaining 8 Wards which were identified as potential cases for in-depth study. These Wards were subjected against the aforementioned criteria and two cases were selected namely Charambe (urban) and Chamazi (per-urban).

Table 4.2: Potential cases for in-depth study in Dar es Salaam

S/N	Wards	Population	Status	Population density	Dispensaries		
					Government	Private for Profit	Private not for Profit
1	Sinza	36,323	Planned	153	1	10	0
2	Charambe	83,098	Unplanned	77	1	14	2
3	Mbagala Kuu	69,523	Partly planned	45	1	9	3
4	Kawe	94,166	Partly planned	33	9	7	2
5	Somangiri	10,749	Unplanned	1	4	0	0
6	Kimbiji	3,647	Unplanned	1	1	0	0
7	Pemba Mnazi	5,152	Unplanned	1	4	0	0
8	Kisarawe	4,253	Unplanned	1	2	0	0
9	Chamazi	8,286	Unplanned	1	2	1	0

Source: National Bureau of Statistics (2002), Info-Bridge (2008), City Council, 2010

Table 4.3: Criteria for selecting cases for in-depth study

Criteria No.	Criteria	Maximum score points
1	Areas where there is high number of private health care facilities; this is regarded as information rich cases.	5
2	Area with rapid population growth and relatively big population size.	4
3	Areas that exhibit high dynamics in land uses as results of rapid urbanisation, thus unplanned area is most preferable.	3
4	Areas that are easily accessible by the available means of public transport.	2

Table 4.4: Evaluation and final selection of the best cases for in-depth study

Criteria No. / Wards	weighting					
	1	2	3	4	Total scores	Remarks
Sinza (urban)	5	4	1.5	2	12.5	
Charambe (urban)	5	4	3	2	14	Best case in urban
Mbagala Kuu (urban)	4	3	3	2	12	
Kawe (urban)	4	3	1.5	2	10.5	
Somangiri (peri-urban)	0	0	2	1	3	
Kimbiji (peri-urban)	0	0	2	1	3	
Pemba Mnazi (peri-urban)	0	0	1	0	1	
Kisarawe (peri-urban)	0	0	2	1	3	
Chamazi (peri-urban)	2	0	3	1.5	6.5	Best case in peri-urban

4.7 Mapping of Health Care Facilities

Mapping of health facilities was done by involving different persons at the Ward level. It was necessary to pass through Ward Offices and introduce the research issue and the need to carry out mapping exercises. The key persons to consult were the Ward Executive Officers, who are the overall in charge of all activities that take place at the ward level. The Ward Executive Officer at Charambe and Chamazi issued me with the permission notice to the respective sub-wards' Chairpersons in the jurisdiction area about the research activities. Sub-ward chairpersons appointed one person to show me where private health care facilities are located. Sometimes, hired care was used to take us to the different places in order to reach the facilities which were not located along the main road. Aerial images could not assist much as it was not possible to distinguish between health care facilities and residential houses. Instead, sign posters along the roads showing destinations where private health care facilities are situated were used to indicate the locations.

The Global Positioning System (GPS) device was used to pick coordinates of the physical location of health care facilities. The coordinates (X-Eastings and Y-Northings) were recorded for each health care facility, their names and the respective specific names of the sub-wards. As such, spatial attributes and qualitative attributes were documented for further analysis by Geographical Information System (GIS). As health care facilities are there to serve people, population in each Sub-Ward was also recorded for further analysis.

4.8 Data Collection Techniques

4.8.1 Observation

Observations during the fieldwork were pursued in order to describe location, physical appearance of the health facilities, types of health care services and related activities. Movements to and from the facilities, number of patients waiting outside the facilities were also observed. Sign posters along the roads that showed the location of health care facilities and service offered were also observed. Description of full range of interactions (movement of patients to and from the health care facilities) between the health facilities and the patients in both private and government facilities were done in order to compare observations and households' survey.

4.8.2 Household survey

A total of 126 households were randomly selected and surveyed in both Chamazi and Charambe Wards. The random sampling took place in each sub-wards based on population size. Household questionnaires were used to get information about health care services from the households. Out of 56 households surveyed at Charambe, 51 questionnaires were filled by households' head and 9 questionnaires were filled by the other members of the households. This latter was done only in households where the households were not available. At Chamazi, 63 questionnaires were filled by the household heads and 7 questionnaires were filled by the other members of the households. Almost all household heads were male with few exceptions where female rented houses while still single.

4.8.3 Discussions with local leaders at sub-ward level

Discussions with local leaders including Sub-ward chairpersons, and Sub-ward Executive Secretaries were thoroughly carried out in every Sub-wards. This was done in order to get their experiences on demographic characteristics, the situation of health care services in the area and the nature of land use development. They also provided information on how they assist special group access to health care facilities and the challenges they face.

4.8.4 Interviews with owners of private health care facilities

Interviews with owners of private health care facilities were also conducted in 4 out of 22 private dispensaries at Charambe and at Chamazi, the in-depth interview was made to the owner of the private dispensary. It should be noted that in Chamazi there is only one private dispensary that is why the interview was made in one dispensary. Interviews with health facilities owners were done in order to understand motivating factors for establishing health care facilities, incentives they receive from the government and challenges they face in locating their health care facilities including space/rental houses or land acquisition for the facilities.

4.8.5 Interview with officials in the Ministry of Health and Social Welfare

At this ministerial level, in-depth interview was made to the Assistant Director of private health care facilities at the Ministry of Health and Social welfare. This interview availed substantial information in relation to private health care facilities especially registration procedures, regulations involved, and how inspections are conducted to ensure quality and health care standards are observed. Geographical equity in health care services and future plan to improve

health care facilities and distribution were at the centre of the discussions. To supplement the discussions various documents were provided including new health policy (2007) and Health Sector Development Plans (2009-2015).

4.8.6 Interview with officials in the Ministry of Lands, Housing and Human Settlement Development

In-depth official interviews with Head of Physical Planning Section and Secretary of Peri-urban land development projects, were carried out in order to understand existing plans to manage urban growth in Dar es Salaam especially in peri-urban areas.

4.8.7 Discussion with elderly, disabled and women

Discussion with elderly and women were done at Charambe and Chamazi in order to understand how they get health care services in their areas. This was done partly in order to understand how they get health care services; this could provide reflections on the equity in access to health care as well as challenges which elderly, disabled and pregnant mothers face. It is worth noting that in Tanzania, usually women take care of children and elderly such as providing them with food and taking them to health care facilities when they are sick. Therefore, information related to children and elderly was well grasped through women focus group discussion.

4.8.8 Interviews with health officials in Dar es Salaam city Council

It was imperative to conduct interviews with officials working in health sector in Dar es Salaam City Council in order to understand the situation of private health care facilities in Dar es Salaam city as whole. Interviews were carried out with Dar es Salaam Zonal Project Manager who was very cooperative and curious of my research. Discussions were also made with one of the Health Officers at Dar es Salaam city council on the spatial location and distribution of private health care facilities and how the keep in touch with them.

4.8.9 Key informants

Discussion with key informants at Chamazi Ward was done with the Community Development Officer. She provided information related to tradition beliefs and access to health care facilities in Chamazi. The owner of the private dispensary was also selected as key informant at Chamazi; he is a resident who has lived in the area for quite a long time, since the Ward was a mere village. As a retired Medical Doctor in Morogoro Regional Hospital, he had experiences on how

people strived at getting health care in peri-urban settlements. He was also quite aware of issues related to location and distribution of health care facilities in peri-urban areas.

4.8.10 Data coding

Statistical packages for Social Science (SPSS) programme was used to code the collected data; this software stores data and simplify data retrieval, data analysis, summarisation of data. It is, therefore, important tool for data management. Each household questionnaire was numbered and each question and its respective responses were entered in the SPSS and given the specific code. The hard copy of the household survey questionnaire is kept in the box file each questionnaire bearing the number similar to the one in the SPSS software. It is easy to cross-check and compare question and responses for each questionnaire.

4.8.11 Data analysis

Literally, in case study method, it is difficult to set a clear cut on when data analysis starts. Analysis started during data collection through observations, focus group discussions, taking and interpretation of the field notes. As in-depth interviews with official were carried out data simultaneous interpretation was made on what respondents say. For the points which were not clearly understood, respondents were asked to make clarification in order to capture what exactly each respondent meant in order to get right the information. Quantitative data from the households' survey were analysed by Statistical Packages for Social Science (SPSS). Similarly, spatial data including location and distribution of health care facilities were analysed by Geographical Information System (GIS) such as mapping and overlay of distribution of health care facilities with road networks and settlements.

4.8.12 Mode of reporting the research findings

Monograph format is adopted as a mode to report the findings of this study because it is straight and time saving given the nature of the research environment. However, from the monograph, various papers will be developed, presented in the conferences when accepted and published. This can be done based on the specific research themes such as equity, accessibility and hierarchy in health care service delivery.

4. 9 Limitations of the Study

Professionally, as an urban and regional planner, the focus has only been on the areas of professional competence. In this regard, more emphasis has been made on the spatial aspects of private health care facilities and influencing factors for location and distributions. The details of health care facilities' design and types and quality of services offered are not covered by this study as they are outside the scope of my study and area of competence.

Geographically, this study covers parts of Dar es Salaam city and not all urban areas in Dar es Salaam. It could be interesting to get study like this in all Wards of Dar es salaam; but this could not be possible due to time and resources limitation necessary to cover the whole Dar es Salaam city. On the other hand the scope of the issue is limited to private health care facilities in two administrative Wards out of 73 Wards that comprise Dar es Salaam city.

Lastly, resources in terms of time, money and supervision are also limited. The total study duration is four years. Two years for Licentiate degree (Sweden) and the rest two years for PhD degree (Tanzania). As such only aforementioned objectives have been pursued.

CHAPTER FIVE

CASE 1: PRIVATE HEALTH CARE FACILITIES IN CHARAMBE

This Chapter presents findings and discussions about location and distribution of private health care facilities in Charambe (Case 1). The Chapter starts by describing the geographical location and administrative set-up of Charambe Ward. The empirical findings and discussions cover the main study variables which consist of population, accessibility, motivations, equity and hierarchy as explained in the Conceptual Framework in Chapter Two. The Chapter ends by brief concluding remarks which summarise the main findings, interpretations and discussions.

5.1 Location and Administrative Set-up of Charambe Administrative Ward

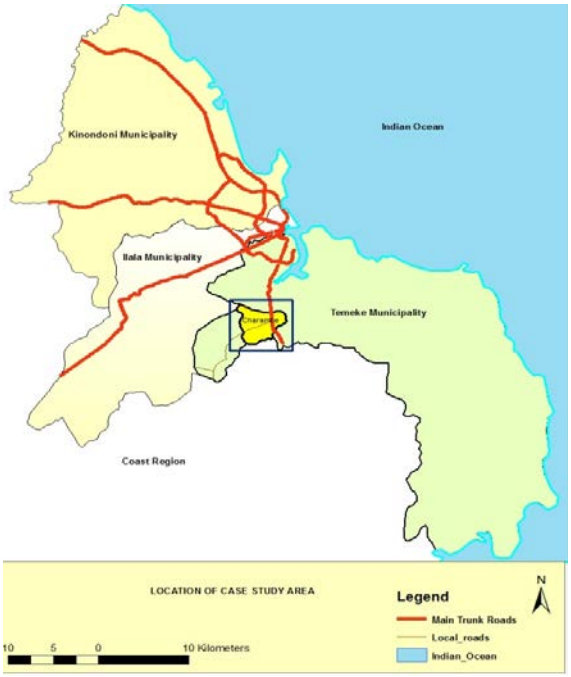


Figure 5.1: Location of case study areas: Regional Setting

Charambe Administrative Ward is located about 18 km from Dar es Salaam city centre along Kilwa Road; a trunk road that leads to Lindi and Mtwara in the southern part of Tanzania. The Ward covers a geographical area of 10.76 km^2. The road junction between Mbande and Kitunda at Rangi Tatu which is one of the Sub-Ward of Charambe Ward, makes the area potential trading and important peri-urban centre in Temeke Municipality. Administratively, Charambe is one of the 24 wards which constitute Temeke Municipality.

Charambe Ward has 13 administrative Sub-wards which serve as the "Mtaa" Local Government[29] unit at the grassroots. The Sub-Wards include Nzasa A, Mianzini, Maji Matitu A, Zomboko, Mchikichini, Rangi Tatu, Machinjioni, Kimbangulile, Kobondemaji, Nzasa B, Kurasini-Mjimpya, Kilungule and Maji Matitu B. It is worth noting that each Sub-Ward is independent local government unit headed by Chairperson and the Administrative Secretary. Sub-wards based on Health Policy (2007), can be compared with villages in the rural setting. If this comparison has to be taken seriously, each Sub-Ward should be provided with a dispensary. On the other hand, a Ward is an important administrative unit in Tanzania in which all development projects from the grassroots (Sub-Ward Level) are coordinated through Ward Development Committees (WDC). The WDC serves as a bridge between the grassroots and the Municipal Council. Ward is also an important administrative unit when it comes to distribution of health care facilities as national health policy requires each Ward to be provided by a Health Centre (URT, 2007).

5.2 Population

Population is a basic input and imperative element in any planning for urban service delivery. It determines the number and level of health care facilities to be provided. It is also a central factor which determines the rate of urbanisation hence urban growth. This conception has made population dynamic one of the key factors to examine in this study.

5.2.1 Population growth and distribution

Population size in Charambe is estimated at 118,672 inhabitants with 47,102 households in 2011. The National Population Census conducted in 2002 indicated that Charambe had 40,800 male and 42,298 female. While in 1978 there were only 2,719 inhabitants, in 1988 the population increased to 18,624 inhabitants and in 2002 the population reached 83,098 inhabitants.

Similarly, households´ survey indicates that Charambe is urbanising rapidly. Rapid population growth has progressively taking place since 1978 (Figure 5.2). Although the patterns of city

[29] Mtaa Local Government is popular known as "Serikali ya Mtaa" in Swahili language; "Serikali ya Mtaa" has Chairperson selected democratically by inhabitants in the Sub-Ward (Mtaa) for the period of 5 years. The Sub-Ward has also executive secretary who is the employee of the government. It has also different development committees. At the households' level there are "Ten Cell Units" (means cluster of ten households) in each Sub-ward. These units are headed by Ten Cell Unit Leaders called "Balozi wa nyumba kumi" in Swahili (Ambassador of ten households).

growth shows that population growth and distribution is related to physical accessibility at large, discussions with key informants revealed that availability of cheap land for housing development plays significant roles. Population distribution by Sub-Wards with respect to distribution of private health care facilities is shown in Table 5.1.

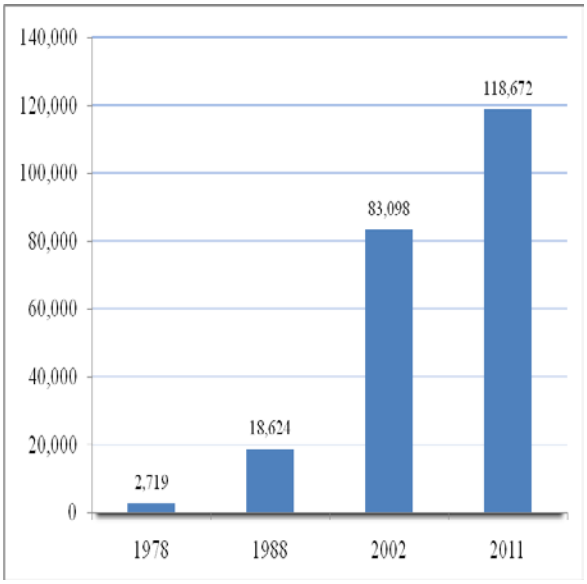


Figure 5.2. Population growth (Source: NBS, 2002; Sub-Ward's Offices, 2011)

Charambe's population had increased by 400% between 1978 and 2002 which was 10 times more than the Dar es Salaam's average population increase in the same period. Analysis of population growth recorded by the National Population and Housing Censuses between 1978 and 2002 in all wards in Dar es Salaam city, indicates Charambe to be the fastest urbanising Ward in Dar es Salaam. Table 5.1 shows population distribution by Sub-Wards which comprise Charambe.

Table 5.1: Population distribution by Sub-Wards

S/N	**Sub-ward name**	**Population**
1	Nzasa A	7,501
2	Mianzini	4,201
3	MajiMatitu A	10,107
4	Zomboko	9,556
5	Mchikichini	20,245
6	Rangitatu	16,994
7	Machinjioni	8,892
8	Kimbangulile	9,444
9	Kobondemaji	12,177
10	Nzasa B	7,177
11	Kurasini-Mjimpya	4,692
12	Kilungule	4,311
13	MajiMatitu B	3,375
	Total	**118,672**

Source: Charambe Sub-Ward's Offices, 2011)

Between 50% and 80% of the households surveyed migrated to Charambe for the past 10 to 15 years respectively. Figure 5.3 provides migration patterns based on the households surveyed in in Charambe[30]. For the past decade, 51.8% of the households had already migrated to Charambe.

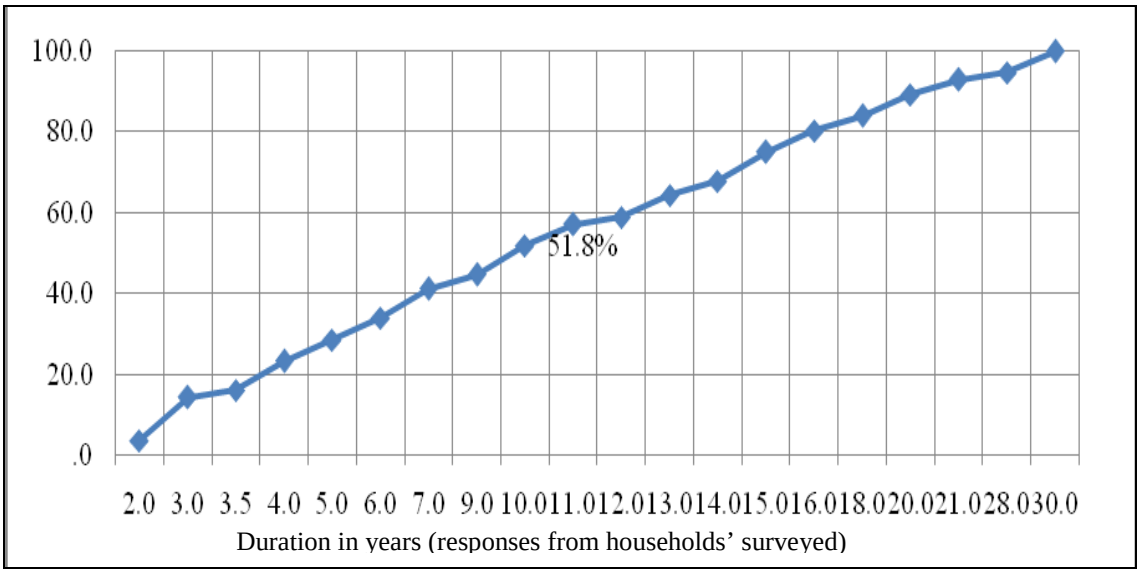


Figure 5.3: Immigration patterns at Charambe for the past 30 years (Results from households' survey, 2011)

5.3 Location and Distribution of Private Health Care Facilities

There are 17 private dispensaries and one private health centre in Charambe. In addition, there is one government dispensary and one government health centre[31]. However, 5 private dispensaries were closed by the government due to their failure to meet the requirements of health care facilities as provided by the National Guideline Standards for Health Facilities of 1996. Table 5.2 shows the types, ownership and functional status of health care facilities in Charambe Administrative Ward.

[30] Only households that have stayed for at least two years and above were surveyed at Charambe Ward. The underlying assumption is that very new households could not be aware with the situation of health care facilities in the area. That is why the Figure 5.3 starts from 2 to 30 years.

[31] Government Health Centre at Rangi Tatu was still under construction during the fieldwork in February 2011. It is located slightly outside Charambe administrative boundary to cater for population of Charambe and Mbagala.

Table 5.2: Summary of types of health care facilities, ownerships and locations

S/N	Types of health facility	Ownership	Location (Sub-ward)	Status
1	Chegeye Dispensary	Private for Profit	Majimatitu A	Functioning
2	Nurraifo Dispensary	Private for Profit	Majimatitu A	Closed by government
3	Taima Nyangawa Dispensary	Private for Profit	Nzasa	Closed by government
4	Bakwata Dispensary	Private not for Profit	Machinjioni	Functioning (New)
5	Lugeye Dispensary	Private for Profit	Kurasini Mji Mpya	Closed by government
6	Afya Care Dispensary	Private for Profit	Zomboko	Functioning
7	GE Dispensary	Private for Profit	Kibonde Maji A	Functioning
8	AJ Dispensary	Private for Profit	Mchikichini	Functioning
9	Arafa Dispensary	Private for Profit	Rangitatu	Functioning
10	Sama Dispensary	Private for Profit	Rangitatu	Functioning
11	Arafa-Mapinduzi Dispensary	Private for Profit	Rangitatu	Functioning
12	ICC Charitable Dispensary	Private not for Profit	Kilungule	Functioning
13	Majimatitu Dispensary	Government	Majimatitu A	Functioning
14	Mico faith based	Private for Profit	Kurasini Mji Mpya	Functioning
15	Arafa Shalom	Private for Profit	Kilungule	Functioning
16	Arafa Charambe	Private for Profit	Nzasa B	Functioning
17	Mkizi Dispensary	Private for Profit	Majimatitu A	Closed by government
18	Nurraifo Kilungule Dispensary	Private for Profit	Kilungule	Closed by government
19	Samaria Mission Health Centre	Private not for Profit	Nzasa B	Functioning
20	Rangitatu Health Centre (new)	Government	Rangitatu	Functioning (New)

Source: Fieldwork, May 2011.

Table 5.3: Distribution of private health care facilities by Sub-wards

S/N	Sub-ward name	Population	No. of facilities	Facilities' types
1	Nzasa A	7,501	1	Dispensary
2	Mianzini	4,201	0	No health facility
3	MajiMatitu A	10,107	2	Dispensaries
4	Zomboko	9,556	1	Dispensary
5	Mchikichini	20,245	1	Dispensary
6	Rangitatu	16,994	3	Dispensaries
7	Machinjioni	8,892	1	Dispensary
8	Kimbangulile	9,444	0	No health facility
9	Kobondemaji	12,177	1	Dispensary
10	Nzasa B	7,177	2	Dispensary
				Health centre
11	Kurasini-Mjimpya	4,692	1	Dispensary
12	Kilungule	4,311	2	Dispensaries
13	MajiMatitu B	3,375	5	Dispensaries
	Total	**118,672**	**20**	

Source: Fieldwork, May 2011

From the comparison in Table 5.3 above, it appears that location of health care facilities does not takes into account the size of population and administrative units (Sub-Wards). Specific examples include Nzasa B Sub-ward with 7,177 inhabitants has only 2 private dispensaries while Maji Matitu Sub-Ward has 3,375 inhabitants but is served by 5 dispensaries. Similarly, location of health care facilities is not based on the administrative units which are in contrary with National Health Policy (2007); for instance there is no health care facility in Mianzini Sub-Ward and Kimbangulile, while there are 5 dispensaries in Maji Matitu B Sub-Ward (Table 5.3). As expected, settlements with good vehicular access roads are also well supplied with health care facilities. Settlements which are located far away from main roads, the so called "interstitial settlements" are under-served and some of them lack health care facilities despite the large number of inhabitants in the area.

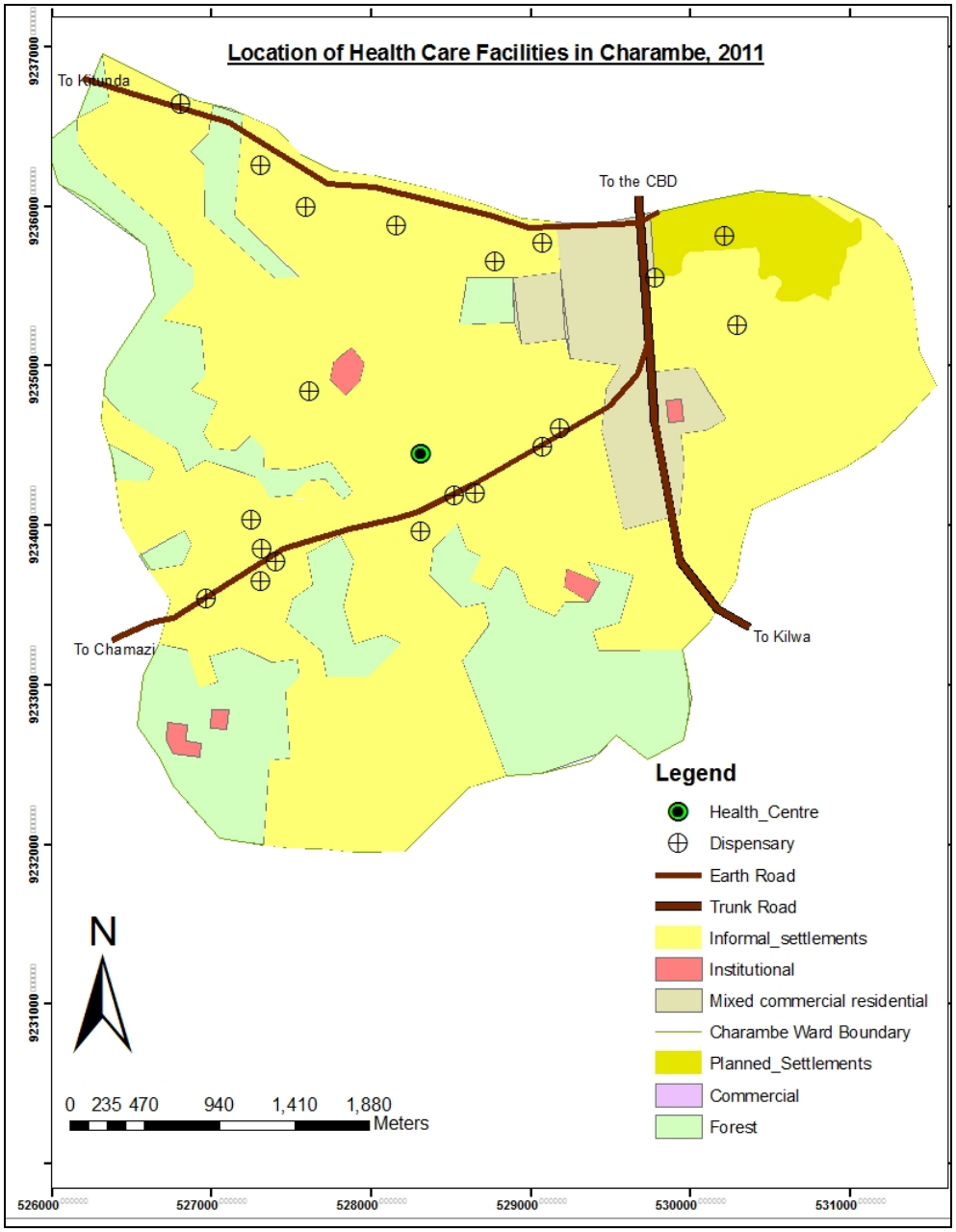


Figure 5.4: Location of private health care facilities in Charambe Administrative Ward

Figure 5.4 shows spatial location and distribution of private health care facilities in Charambe. The figure also shows existing land uses and urban development patterns. It is estimated that over 95% of the inhabitants in Charambe live in informal settlements where water, roads and sanitation are not adequately provided. Informal urban expansion in Charambe has left large

parts of the settlements with poor accessible hence lacking private health care facilities. It was also observed that most private health care facilities are located in areas where concentration of commercial activities such as areas along the roads, areas close to petty trading activities, retails shops and bus terminals is high. About 46% of the total household surveyed are not satisfy with the location of the buildings where health care services are delivered. The arguments have been that some of the health care facilities are located within the trading activities, mixed with various socio-economic activities; most of them are small with poor ventilation areas and inadequate light even during the day. It was also revealed that most of the buildings were initially residential houses. Mixed uses without clear and physical separation of functions results into conflicts between health care activities and petty trading such as blockage of entrance to health care facilities, air pollutions from commercial activities such as carpentry workshops and materials from hardware's shops. One of the key informants during the discussions argued that:

> "Most of the private dispensaries are located in unfavourable environments; noise, poor hygienic condition; there is inadequate space, no privacy and patients cannot feel comfortable to staying there".

Figure 5. 5: Location of private dispensary within petty trading area along the Kilwa Road

Figure 5. 6: Location of private dispensary within residential housing

It is difficult to reach and see the entrance of health care facilities due to overcrowded of commercial activities in the area. The term "ZAHANATI" in figure 5.5, is a Swahili words which means a dispensary. Figure 5.5 shows one of private dispensaries located in the crowded area where petty trading and other commercial activities are taking place. As there is no physical separation between private dispensary and other uses, it was observed that environmental pollutions including noise, poor solid waste disposal and smokes from food preparation (food vending activities) interfere with health care services. This situation indicates laxity in spatial regulations of health care facilities in Dar es Salaam. Therefore, lack of reserved land for

community facilities has a substantial contribution to poor siting, use and appropriate buildings and poorly done indoor and outdoor spaces.

5.3.1 Major determining factors for location of private health care facilities

Interviews with private health care providers in Charambe indicated that availability of space or building at affordable price and physical accessibility are key determinants of location of private health care facilities. Interviews with one of the private health care providers at Charambe Ward indicate their endeavour to survival in the market, arguing that:

> "This is a business; everyone would like to locate his/her business along the road in order to be seen by those who are passing by".

While roads promote access to health care through public and private means of transportation, they also facilitate delivery of goods and services related to health care. It is therefore a key determinant of location of health care facilities. Poor water supply in the area has also lead to location of health care facilities along the roads where water can easily be delivered by trucks or water vendors. Availability of water is equally important for health care services so as to maintain hygiene in health care facilities.

It was revealed that acquiring land for constructing health care facilities is not easy because there no land or buildings prepared for community facilities. Most of the houses are built for residential purposes. In informal urban expansion, residential houses are given the first priority, so as to get rid of urban shelter problem. Out of the 10 owners of private health care facilities which were interviewed, none of them had initially designed a building for health care service delivery; only one of them built his own house and converted it to health care facilities.

5.4 Accessibility

This study has found that accessibility to private health care facilities is influenced by distance, individual experiences (previous knowledge about health care services, competences of the medical staff, diagnosis and prescriptions offered), affordability, trust, opening hour, availability of drugs, cultural beliefs; waiting time and customer care. Location factor include place where health care facilities are situated in relation to where people live. The distance to health care facilities, therefore, determine the decision of persons about what kind of transport should be used. This decision also depends on the physical conditions of the patients.

5.4.1 Experiences influence access to health care

Despite the concentration of private health care facilities in Charambe[32], still 70% of the households surveyed seek health care services from government health care facilities, while 20% seek the same from private health care facilities. Only 10% of the surveyed households seek health care services from both government and private health care facilities. If financial barrier is removed, about 69% of the surveyed households would like to get their services in government health care facilities, and about 31% would like to be treated in private health care facilities. This situation implies that persons prefer alternative that they are used to in the previous. Private health care services are relatively new to many persons as they have been getting free health care from the government health care facilities for the quite long time following Arusha Declaration.

The percentage of persons seeking health care from government health care facilities provided various reasons as to why they prefer the government health care services. Their experiences suggest that the government provides reliable health care services, accuracy prescription, affordable and quality health care services, and it is easy to be referred to the higher levels of health care facilities. Additionally, transport can be arranged in the government health care facilities for quick transfer to referral hospitals in case of emergencies. Free advisory health care services are also provided in government health care facilities. The qualified and experienced medical experts are also employed by the government[33]. Government owned health care facilities are self-contained as they can communicate from lower (dispensary) to higher level (referral hospitals) easily. Therefore, most personsfeel more assured of the quality of services they get from government health care facilities than they do from private health care facilities.

Private health care services are delivered in a challenging environment within Charambe Ward. Detailed observation and interviews were done in one of the private dispensaries in the Ward. The author went through various parts of the private dispensary after the in-depth interview with one of the owners of the dispensaries.

[32]There is only 2 government health care facilities out of 14 health care facilities that are functioning (12 are private health care facilities).
[33] Interview with Clinical Officer in Government Health Facility at Charambe, June 2011.

It was observed that, there was only one patient waiting for treatment at the reception room. It was around 11.00 am in the morning. On the top of the table there was a little white tag labelled "MAPOKEZI" which is a Swahili word meaning reception. It was surrounded by a dilapidated sofa and a radio on top of a stool. Drugs were stored on a wooden shelf and some of them were in the tray on top of small table in the injection room. The dispensary was not properly cleaned as some stains of dyes were still seen on the tables and floor. On the top of a wooden shelf there was a kerosene lamp suggesting that power cuts was a critical problem in the area. One could expect a standby power generator, but instead the health care provider relies on the kerosene lamps for light during the night in case of power cut.

Figure 5.7: *Reception of one of private dispensary at Charambe*

Figure 5. 8: Drugs and storage facilities of the same dispensary at Charambe

Figures 5.7, 5.8 and 5.9 show the situation that has just been described. This was one of many private dispensaries which operate in the difficult environment. Five private dispensaries which were closed by the government between August 2010 and June 2011, provide also evidence for inadequate performance of some of private health care providers.

Figure 5.10 Shows the flour plan (sketch not drawn to scale) of one of private dispensaries located along the main road. Its location along the road implies high rental fees and limited spaces are usually available. The competition of spaces for various commercial activities due to physical accessibility also increases the rental fees.

Figure 5.9: Alternative source of light in the same private dispensary

Such situation seems to influence access to private health care facilities. Also about 46% of the households surveyed do not satisfy at all with the condition of private health care facilities. Responses from 10 owners of health care facilities indicated inadequate capital for initial investment in health care. The costs for space acquisition, monthly rental fees, cost of drugs, diagnostic devices, salaries for the workers, cost for utilities such as water and electricity are met by the private owners. Inadequate water and intermittent power supply also increases cost of private health care services. Poor working environment is, in some extent, related to limited find of individual private health care providers. It was also revealed that government does not provide adequate incentives to improve private health care services.

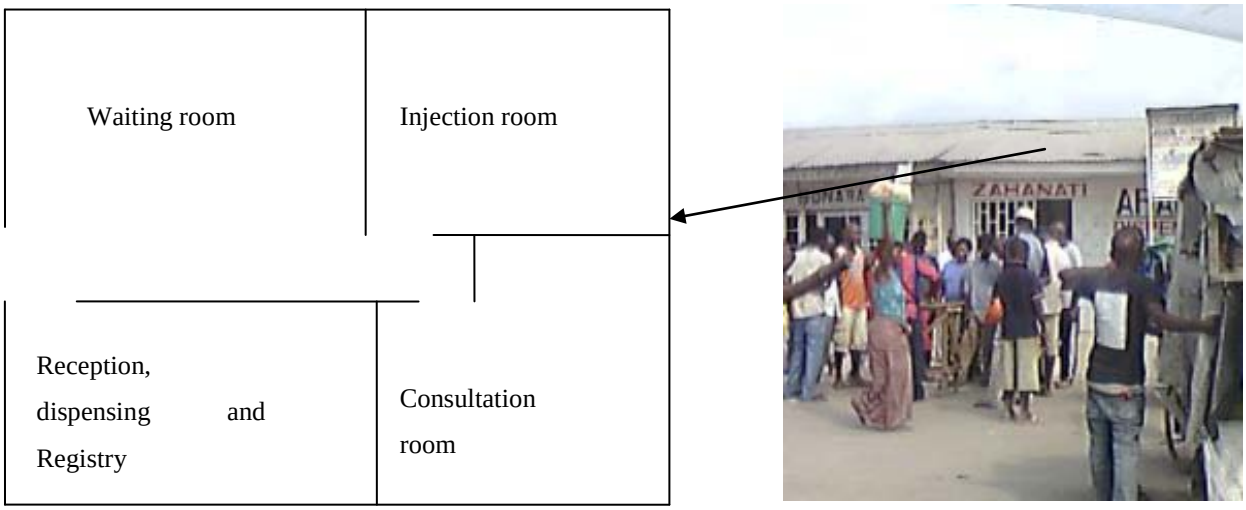


Figure 5.10: Flow plan for one of the private dispensaries located along the trunk road in Charambe

However, there is variation in the standards of health care facilities and quality of health care services delivery among private health care providers. About 54% indicated that the condition of private health care facilities is satisfactory and some of them are well placed with high quality health care services. Through observation, it was also found that there are private health care

facilities which are in nice condition in terms of physical appearance of the building, outdoor and indoor spaces and landscape see figures 5.11, 5.12, 5.13 and 5.14.

Figure 5.11: External view of one of private dispensaries at Charambe

Figure 5.12: Resting bedroom in one of private dispensaries at Charambe

It has been observed that there are difference standards in terms of plot size, number rooms and services offered among private health care facilities of the same status. The differences in quality and standards indicate that the required standards are not adhered to by some private health care providers and some of them appear to have no capacity to invest in health care services.

Figure 5.13: Reception room

Figure 5.14: Rest room (MAPUMZIKO in Swahili)

It was observed that private health care facilities which are located far away from the main roads have relatively adequate indoor and outdoor spaces. The main reason is that rental fees in this area are comparatively low and more services can easily be provided like MCH, rest rooms, nursing rooms. Figure 5.15 shows the rough sketch of the site layout of one of private dispensaries which is located in less accessible area in Charambe.

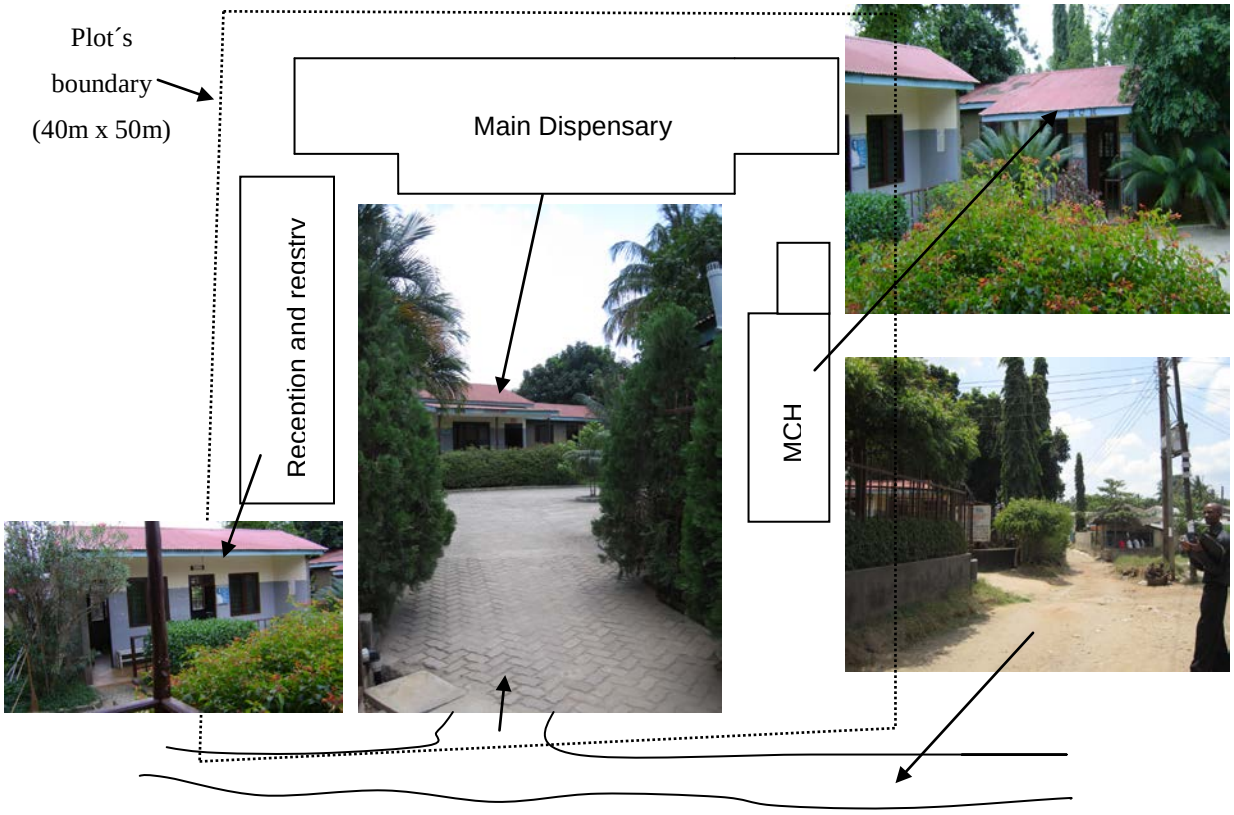


Figure 5.15: Site layout and associate photos of one of private dispensaries in Chamazi

5.4.2 Trust as an individual component of accessibility

Many inhabitants at Charambe have lost their trust in private health care services due to many reasons including over-prescriptions, costs of drugs and consultations and availability of competent medical staff. It is clear to the community that private health care providers are business oriented rather than meeting the health care needs. Household survey indicated that even the good customer care that are offered by the private health care providers are due to the fact that patients as customers, are considered as source of income, thus should be taken care of. It should be noted that business orientation is essential for both short and long term survival in the market but has to be accompanied by the good treatment and customer care in order to sustaining private health care services for the long run.

Discussion with local leaders (Sub-ward chairpersons) indicated that many persons would not like to express private issues to the young staff who seem to have little experiences and knowledge. During the discussion, one of the local leaders said:

> "You find a young nurse, almost a child, in private hospital who has just been trained for six months at Msimbazi, you get scared to avail your sexual related diseases".

This could also be the case for some government health care facilities. The challenge of management in private health care facilities seems to results in to this experience. Some medical staff like midwives are not available even in government health care facilities. Both private and government health care providers are competing to employ midwives as they are highly needed in health care facilities. For a private dispensary to be registered it should have at least two midwives (URT, 1996). Therefore, balance between registration requirements and profit maximization appears to be one of the critical challenge facing private health care providers.

5.4.3 Affordability

Affordability is one of the components of accessibility; about 57% of 56 households surveyed indicated that the cost for drugs in private health care facilities is very expensive and they cannot afford. Only 23% indicated that they can afford cost of health care services, while 20% indicated that the drugs in private health care facilities are expensive and can hardly afford. Although there are private not for profit health care facilities in Charambe which could be expected to provide health care services at relatively low price, they are no differences in terms of cost incurred by patients to get health care services. This is largely due to inadequate incentives they receive from the government and the need to maximize profit in order to meets costs involved in health care service delivery.

5.4.4 Availability of drugs and over-prescription in private health care facilities

Availability of drugs in private health care facilities increases access to private health care facilities. About 75% of the surveyed households indicated that there is no problem of medicines in private health care facilities unlike in government facilities. To them it is convenient to get both diagnostic services and respective medicines at the same premises rather than searching them in pharmacy shops along the streets; they consider the latter as wastage of time as sometimes it is not clearly known on where the prescribed medicines can be obtained. In-depth interviews with private health care providers have revealed that they purchase medicines from the whole shops in the city centre regularly to ensure availability of medicines in the health care facilities all the time.

On the other hand, results from the focus group discussion with women indicate that many persons do not want to go to private health care facilities because of over-prescription. The following are the key quotation made by one of the women during the focus group discussion:

> "Often there is over-prescriptions in private health care facilities. They do so in order to sell their medicines before they expire to avoid loss. One day I took my sick child to the private health facility where the Doctor told me that they should test his urine and blood; they took the urine and blood and tested; after a while they told me that your child has UTI and Malaria, I could not believe that as my child was vomiting. I then decided to go to the government health facility where only worms were found. I was given medicine for worms; my child is okay since then. Therefore, there was no UTI and Malaria as initially observed; I never trust them as their diagnostic results are not realistic.

The problem of over-prescription in private health care facilities was also noticed during the households' survey when the respondents were asked the general problems of private health care providers in their areas. Once again, issue of over-prescription was emerged as one of the problems of private health care facilities being supported by 8 households. Often, this could be the case as it is difficult for the patients to know how much you can pay for health care before diagnosis.

5.4.5 Waiting time

Short waiting time is one of the factors which is considered for those who prefer to seek private health care services. Figure 5.16 and 5.17 show patients waiting in one of the two private dispensaries at Charambe Administrative Ward while Figure 5.18 shows patients waiting for treatment in government dispensary at Charambe.

Figure 5.16: Patient waiting for treatment at the reception room in one private dispensary

Figure 5.17: Patients waiting for treatment at the verandah in one of the private dispensariess

Through households' survey, it was revealed that often middle and higher income persons do not want to spend a lot of time waiting for medical treatments in government health care facilities thus opt for private health care services. Observation made by Author between 8.00 am and 7.00 pm in working days for three consecutive days and during the weekend, found that that the number of patients in private health care facilities ranged between 1 and 6 at a time. The average number of patients registered per day is 18 in private dispensaries and 40 in private health centre[34]. The situation is different in government health care facilities where congestion of patients is a common phenomenon.

Figure 5.18: Patients waiting for treatment at Charambe government dispensary

As the author was entering to the office of the Medical Assistant (MA) in Maji Matitu government dispensary for the interview, many patients were waiting treatment along the waiting lobby (Figure 5.18). Some of them were outside on the ground waiting (Figure 5.19). They were about 50 persons; at the main entrance others were still coming. The MA was very busy attending patients who were entering to the consultation room one after another.

The possibility for the official interview was very narrow given this situation. However, the Author decided to knock the door in order to make an appointment for the interview. As expected, it was not possible to conduct an interview. The MA suggested the time for interview to be on either early in the morning at 7.00 am or late in the evening between 5.00 and 6 pm.

[34]Interview with Director, Samaria Mission Health Centre in June 2011

Figure 5.19: Patients waiting outside for treatment at the same dispensary as Figure 5.19 but outside

Figure 5.19, shows patients waiting in government dispensary at Maji Matitu Sub-Ward at Charambe. The high percentage of patients seeking health care from government dispensary which is only one at Charambe (70%) and congestion of patients observed is another indicator for health care access problem to private health facilities. The general trend has been few patients in private health care facilities and congestion of patients in government health care facilities, the situation intensifies when the observation is made in government health centres and hospitals. The situation is even worse in higher order health care facilities. Mkony (2009) noted that in one of the Hospitals in Dar es Salaam, the outpatient department areas were congested and sometimes consultations were made in the open areas.

5.4.6 Opening hour

Opening hour is another factor that influences access to private health care. In all private health care facilities visited, sign posters are used to indicate "services offered for 24 hours". Private health care providers in this way take advantage as most government dispensaries are closed during the night and also during the weekend[35]. As such some patients would have no alternatives during the night and during the weekend and would go to the nearby private health care facilities.

5.5 Socio-cultural beliefs

Social cultural issue was not initially considered one of the key study variables. It emerged during the discussions with key informants and in-depth interviews with private health care providers. It was revealed that often when a person falls sick, the first impression has been that he might be witched. It follows that such patient is taken to the witch doctors or traditional healers, if the condition of the patient becomes worse he/she is finally taken to health care facilities; but this might take even two weeks; the situation that usually lead to deterioration of

[35]Responses from Households' survey

health condition of the patients and sometimes it may lead to death. These findings are summarised by the following quotation from one of the owners of private health care fcailities:

> "Often some households take their patients to traditional healers, when their situation deteriorates; they are brought here, dirty and in critical conditions. It is impossible even to provide them with medicine; the first thing we do is to provide drips to slow down their body' temperatures. This situation is common here, even the little children are taken to the tradition healers especially when they cannot sleep at night; it might be due to various reasons such as high fever and abdominal pain; but many parents consider that situation as "*degedege*[36]" which cannot be treated at the hospital".

Sign posters are often located along the roads indicating the health care services that are offered by the traditional healers. Traditional healers seem to be very clever as they usually focus on the chronic diseases; the diseases that have made many persons suffering for a long time like diabetes, blood pressure, HIV Aids, epilepsy, and impotence. Such kind of diseases are chromic to many persons; the situation that attracts many persons to traditional healers seeking alternatives treatment. In Tanzania, traditional healers are recognised by the government and they are registered. This situation suggests that there is a need to increase awareness on health issues including diseases that cannot be treated by the traditional healers. This is not to say that the traditional healers should be banned, but they should not keep patients with diseases that they cannot treat or ones that needs urgent attentions such as such as malaria, cholera, typhoid and HIV Aids.

5.6 Equity

Equity is one of the pivotal components in health care as well as spatial planning. Many researchers have shown that equity is a goal of health policy and centre of health care system (URT, 2007; GEG, 2003). Moreover, the extent to which available health care facilities are utilized by the community indicates extent at which health equity is realised. The findings and discussions of equity are briefly discussed in this section because it will be discussed in the Chapter Seven (Cross-Case Analysis) due to some similarities observed from the two cases. For

[36] Email communication made on November 2011 to Christopher J. Mfinanga (MD, Muhimbili University of Health and Allied Sciences), described Degedege is a Swahili terminology which means "convulsions", which might be technically a symptom for mental disorder cerebral malaria or epilepsy it might be also a symptom for many other problems.

instance, mechanism which is in place to facilitate elderly to access health care for free is explored in the cross-case analysis.

During the field work the vertical equity was first examined with respect to awareness of the community on the free access to health care by special group. In responding to this aspect, about 80% of the surveyed households' are aware of policy issue on free access to health care services by special group; the rest 20% are not aware. This high level of awareness triggered the follow up question on how did they know this policy issue on equity. Table 5.4 summarises the results from the households' survey.

Table 5.4: Mechanisms used to raise awareness on vertical equity at Charambe

S/N	Mechanisms used to raise awareness	Household responses (%)
1	TV and Radios	37.8
2	Advertisement on notice board in government health facilities	31.1
3	Meetings made by sub-ward government	17.8
4	Hearing from other members of the community	11.1
5	Politicians during election campaign and meeting with councillors	2.2
	Total	100

Source: Fieldwork, May 2011

TV, radios and advertisement made by the Ministry of Health through public health facilities are effective in rising community awareness on free access to health care for special group. It was also important to understand whether special group get free access to health care services. Households' survey indicated that 88% have given various reasons that confirmed difficulties in getting free access to health care services.

Discussion on health equity was also made with 5 elderly and 8 women and 2 disabled persons. The results from this question are also mixed although the main argument was that there is no free health care; which underscored that the "free access to health care by special group" is just a political envisaged mission which has not yet been met in practice or adequately structured and implemented.

Figure 5.20: Discussion with elderly on how they access health care at Charambe

Based on the discussions with elderly, most of persons are not aware of the procedures to be followed in order to get free services. When the discussion was made with elders they were seemed to be disappointed by the procedures as one argued that:

> "I am elderly , don't they see me? Why should I need to get an introduction letter? By the way, when I go to hospital medical, doctor asks me, what is your age? They know it; and they know that I am within the eligible cohort for free health care access, yet they charge me, no free service, we elders are forgotten".

As part of special group, pregnant mothers are also entitled free access to health care. Findings show that there are bureaucratic procedures[37] in place to enable them access private health care facilities for free. Those who have "health insurance" can be accepted by few private health care providers. Given the fact that about 5% of the households surveyed at Charambe are employed in public sector, and the rest are self-employed largely in informal sector, possibility for getting health insurance is very limited for the majority (95%). On the other hand the quality of population in terms of education is also low. While 5% have attained college and university education, 18% have attained secondary education, 70% have only attained primary education. The rest 7% have not attained formal education at all. Often those who are well educated would like to seek private health care services because of convenience and time saving due to low congestion of patients.

[37] These bureaucratic procedures are described in Chapter Seven.

The central issue which emerged during the discussion with women in relation to how they access health care was inadequate supplies of medicines and delivering kits in public health care facilities; the situation which forces pregnant mothers to purchase them from the private pharmacies. There are also costs involved in accessing health care services which are not directly related to health care itself. Such costs include transport costs and waiting time not only in the health care facilities, but also in bus terminals/stops and also time is wasted as a result of traffic jams and congestion along the way to health care facilities. Also congestions of persons at the bus stops reduce the possibility to travel on time as one has to fight to get into the bus. This could not be easy for pregnant mothers, disabled and even for the sick persons.

For disabled like blind persons and crippled, the problem has been their physical conditions which cannot allow them to even walk for themselves to health care facilities. Findings show that there is no mechanism to facilitate them to reach to health care facilities. They are often assisted by their children or wives and sometimes relatives. However, some of them have no assistance at all and they rely on neighbours to take them to the health care facilities; and experiences show that they are not often getting health care on time.

5.7 Motivation

Professional and possibilities for income generation are key motivating factors for establishing private health care facilities. It was interesting to interview owner of private health care facility which is located in less accessible area in order to explore underpinning motivation. The dispensary was situated about 1 km from the local road and 2 km from the trunk road. There is no public transport close to it; hence people could either walk or come to the dispensary by private cars. It was revealed that the owner of the dispensary is a senior medical doctor from one of the public hospital in Dar es Salaam. During the interview he argued that:

> "I built residential house in this area, but when I found that there is no health facility around here I decided to change my house to a dispensary, we Medical Doctors are allowed by the Government to establish health care facilities to supplement our salary[38]"

[38] Private for-profit dispensaries, clinics, maternities, and hospitals which are fully financed by private individuals and/or organisations are permitted following the 1991 Private Practice Act.

For private not for profit health care providers, incentives from the government seem to motivate but not as expected. Through literature review it has been realised that incentives are central for active privatisation. Therefore, active participation of private sector in health care service delivery will, in some extent, depend on the amount of incentives that are provided to motivate private health care providers.

However, in-depth interviews with medical officials in Dar es Salaam City Council[39] and in the Ministry of Health and Social Welfare[40] showed that government provide incentives for private not for profit health care providers; private for profit health care providers do not receive any incentives from the government as they are profit-oriented. The incentives which have been identified include staff training; provision for free resources (medicines and related equipment) to provide services for special clinics such as Tuberculosis (TB), Ant-Retro Viral (ARV) and Mather and Child Health (MCH).

The government has also reduced subscription fees for the private not for profit and business licence by 50%[41]; that is from TSh. 80,000 (about US$[42] 50) per year to TSh. 40,000/-(about US$ 25) annually. But what is the contribution of US$ 50 per year? Or US$ 25 per year? This is seen insignificant to the eye of private sector and it is basically not meaningful incentives to facilitate the private sector. The private not for profit does not pay income tax as they are not profit oriented; but this is only TSh. 20,000/-(about US$ 13) per month.

Based on the official interviews with one of the officials in the Ministry of Health and Social Welfare, private not for profit should get access to subsidized medicines in National Medical Store Department. But this has not been easy as it engages bureaucratic procedures and delays. In-depth interview with one of non-for profit health care officials at Charambe argued that:

> "We have requested permission to purchase medicines from National Medical Store, until now we have not received permission, a lot of bureaucratic procedures; it is about three years now".

39 In-depth Interview with Zonal Manager, Malaria Control-Dar es Salaam, May 2011
40 In depth interview with Assistant Director, Private Health Care Facilities and NGOs June, 2011
[41] Private for profit health care providers pay the full amount
[42] 1 USD is equivalent to about TShs. 1640 as at September 2011

Although health care is basically the public services (Merson *et al*, 2001), the nature of investment by private sector in health care, especially private for profit, does not differ from investment in commercial services. Individual investors in health care should have initial capital for building or space acquisition, services such as electricity, water, and source of initial capital and running cost. As argued by one of the officials in the Ministry of Health and Social Welfare *"Private health service is business hence profit oriented so market consideration is a priority"*[43]. The issue here is that private health care facilities are located in places with a good market; the situation further increases the disparities in the distribution of health care facilities in urban areas.

5.8 Hierarchy

Analysis of demographic data collected from Charambe and threshold population for health care facilities, suggest that there should be three levels of health care facilities namely dispensaries, health centres and a hospital. Based on the planning standards[44] for health care facility/Population ratio, population of Charambe which stands at 118,672 should be served by one hospital, 2 health centres and 19 dispensaries[45]. However, there are only 2 new health centres, 18 dispensaries (one of them is government dispensary) and two health centres (one of them is a government health centre). There is no hospital within the ward; to make the situation worse, there is also no hospital even within the adjacent division[46] (Mbagala Division). Charambe and Mbagala Division had a total of 222,647 inhabitants in 2002 (NBS, 2002)[47]. The nearby hospital is the Temeke Municipal Hospital which is located about 18 km from Charambe. Therefore, the Charambe case does not represent hierarchical location of health care facilities.

It should be noted that insufficient hierarchy of health care facilities and hence accessibility is not equally felt within the community. This is drawn from the 30% of the households who can

[43]In-depth interview with Assistant Director, Private Health Care facilities and NGOs, May 2011
[44]Dar es Salaam Master Plan 1979, Ministry of Lands, Housing and human Settlements Development (Urban Planning Standards 1992)
[45] 1 dispensary should be provided in an area with population of 6000-10,000; 1 Health Centre to an area with 50,000 inhabitants and 1 Hospital to an area with 100,000 inhabitants
[46]Division is administrative unit higher than Ward; in previous health policy 1993, such unit should have one health centre and consists of several wards
[47] NBS stands for National Bureau of Statistics

afford to access private health care facilities even within the city centre; to this segment of the community, access to health care is not a problem. These results suggest that there is under-utilisation of private health facilities. The likely implication of this situation could be that the private health care providers increase cost to access private health care services in order to meet the running cost of private health care service delivery.

It is worth noting that hierarchical distribution of health care facilities, increases efficiency in the health care system as the transfer of patients from one health care facility to another depending on the required skills. This situation makes spatial hierarchy of health care facilities analogy to referral system.

Another key challenge is that often private health care providers are rarely referring patients to higher order health care facilities. Table 5.5 summarises the results from household survey which indicates community experience in referral situation in private health care facilities.

Table 5.5: Household responses on referral condition in private health care facilities

S/N	Referral notice in private health facilities	YES	Percentage (%)
1	Do not issue referral notice at all	37	66.1
2	Issue referral notice in written form	14	25.0
3	Issue referral notice verbally	5	8.9
	Total	**56**	**100.0**

Source: Fieldwork, May 2011

Specifically, most referral cases are transferred to Rangitatu Health Centre (Government) and Temeke Municipal Hospital (government). The households' survey could not show any referral case which was transferred to existing private health centre.

In line with the above observation, existing private health centre receives between 30 and 50 patients per day[48] which is less than that patients received by government dispensary (lower level) at Maji Matitu Subward which stand at an average of 115 patients per day[49]. On the other hand existing government health centre (Rangitatu Health Centre) receives between 180 and 300

[48]In-depth Interview made with Director, Samaria Mission Health Centre on 25th June 2011 at Engen Courtyard, Dar es Salaam.

[49]Interview with Medical Doctor in Charge, Maji Matitu Government Dispensary on 20th June 2011 at Maji Matitu Dispensary, Dar es Salaam

patients per day depending on the season. During rainy season the number of patients increases due to increase in water born diseases like malaria, typhoid and cholera. Other main reasons include difficult to travel to distant health care facilities due to poor roads (most of the roads in the area are not all weather) and public transport.

These findings also support the aforementioned household survey which reveals that 70% of the surveyed households continue to seek health care services from government health care facilities despite the presence of many private dispensaries in the area. In addition, congestion of patients in government health care facilities reflects priority of the community in government health care facilities over private health care facilities. This can be explained in two ways. The first interpretation of this situation is that community finds it easier to choose government health care facilities because they have knowledge about them. This could be linked with the results obtained during the discussion with local leaders who indicated that:

> "the government health care facilities are here for the long time and they are here to serve us but private health care facilities come and go".

Even when the question of "which health care facilities would be preferred if the cost of access to health care was equal in both private and government health care facilities" the responses favoured government health care services.

Therefore, existing referral system is highly centralised in the sense that it is still focusing much more on the government or public health care services. Private health facilities especially for profit are not adequately integrated into the referral system. This was also supported by the households' survey which indicated that they are often rejected in government hospitals when they start getting health care services from the private dispensaries. That is why 70% of the households prefer to go direct to government health facilities in order to avoid unnecessary inconveniences.

Data collected from the Ministry of Health and Social Welfare confirmed that existing hierarchy of health facilities are rural oriented. This is also reflected in the Primary Health Care Services

Development Programme (PHCSDP) which is popularly known as MMAM[50] aimed at improving primary health care facilities in terms of addressing revised Health Policy (2007) and Millennium Development Goals on health issues. One of the important tasks of MMAM is as cited, *"the rehabilitation of existing health facilities and construction of the new ones, as to have a dispensary in each village and a health centre in each ward"* (URT, 2008:18). It does not show how health care facilities will be improved in urban setting. During the interview with one of the officials in the Ministry of Health and Social Welfare argued that *"we focus on rural areas, private sector will take care of urban"*. This simple answer is actually is echoed in almost all health policies and programmes in Tanzania especially after Arusha Declaration (URT, 1996; URT, 2009).

The existence of 12 functioning private health dispensaries and one private health centres which are not functionally coordinated indicate lack of hierarchical order of location of private health care facilities. However, the application of the concept of hierarchy in health care facilities is too formal and centrally coordinated to be fully recognized in the context of informal urban expansion and liberalised economy. The rapid population growth at Charambe as presented earlier in this case portrays two key challenges for hierarchical distribution of health care facilities. The first challenge is the limited capacity of government to timely provide health care facilities based on the threshold population; under such situation, it relies on private sector to fill the gap. Private health care providers cannot reach the area with poor physical accessibility and other urban services, hence cannot fill the gap as envisaged. The second challenge is on limited capacity of private sector to invest in higher order health care facilities such as health centres and hospitals, which require relatively bigger capital to secure adequate land or building space compared to lower order health care facilities such as dispensaries.

5.9 Concluding Remarks

Findings from Charambe on the location and distribution of private health care facilities suggest that privatization of health care service delivery has not improved equity and hierarchy of health care facilities. In the connection between private health care facilities and government health

[50] MMAM is a Swahili abbreviation for Primary Health Care Services Development Programme (Mpango wa Maendeleo wa Afya ya Msingi).

care facilities are weak when it comes to referral cases and provision of incentives. It also seems that many persons are not understand nature of the private health care and cost involved thus majority has continued to have their preferences to government health care. This situation suggests that there is a need to clearly defined roles of both government and private sector when it comes to spatial location of health care facilities. Factors that motivate private investments such as roads, water supply and public service delivery such as transport should be improved in order to facilitate the location of private health care facilities. The Next Chapter presents findings, discussions and conclusions for Chamazi (Case 2).

CHAPTER SIX

CASE 2: PRIVATE HEALTH CARE FACILITIES IN CHAMAZI

Chamazi is an Administrative Ward situated in peri-urban area of Dar es Salaam city. This is basically the focal point of the study. It presents the context which does not provide attractive environment to private health care facilities. The purpose of selecting the previous urban case is to compare the two contexts and appreciate the difference between them in terms of demographic characteristics, spatial distribution of private health care facilities, dynamic of land use development and how the interplays affect access to health care.

6.1 Location and Administrative Set-up of Chamazi Adminstrative Ward

Figure 6.1: Location of Chamazi Administrative Ward: Regional Setting

Chamazi Administrative Ward is located south of Dar es Salaam city, along Rangi Tatu-Mbande road which is about 25 km from the city centre. It is one of the peri-urban settlements in Dar es Salaam. Administratively, Chamazi is one of 24 wards which constitute Temeke Municipality. It has 6 sub-wards and geographically it is one of the largest ward in Temeke Municipality (73.01 km^2) but with the least population density (1 person per hectare) according to the National Population and Housing Census of 2002. Like Charambe, the Ward is administratively entitled a health centre as required to all administrative wards in Tanzania (URT, 2007).

The Ward has three sub-urban centres namely Msufini, Magengeni and Saku. While Msufini Sub-ward has two sub-centres (Msufini and Saku), the other sub-centre is at Magengeni Sub-ward. The administrative centre is located at Msufini Sub-ward along Rangi Tatu – Mbande

Road where Ward Office, Police Post and Msufini Sub-ward office are situated. The Saku sub-centre is located about 4 km away from the main road to the north east of Chamazi ward. The Magengeni sub-centre is largely commercial and peri-urban centre where persons from the surrounding villages sale their agro-produce.

6.2 Population

As highlighted earlier, population dynamics including population distribution pattern, migration and population growth in cities determine largely the way health care facilities are provided and hierarchically organized; that is why this study bothers to take demographic variable as crucial element in the discussion of health care facilities in Dar es Salaam as whole and Chamazi in particular.

6.2.1 Population growth and distribution

Currently, population size in Chamazi is estimated at 19,246 inhabitants with about 5,611 households. According to National Population Census which was conducted in 2002, Chamazi had a population of 8,286 inhabitants. Table 6.1 shows population distribution by Sub-Wards.

Table 6.1: Population distribution by Sub-wards

S/N	Sub-ward name	Population	Households
1	Magengeni	4,000	1,236
2	Msufini	8,314	2,000
3	Mwembebamia	1,022	895
4	Rufu	2,078	525
5	Kiponza	2,520	605
6	Kisewe	1,312	350
	Total	19,246	5,611

Source: Chamazi Sub-Ward's Offices, May 2011.

Msufini and Magengeni Sub-Wards have relatively higher population than other Sub-Wards because they are located along the main road and they embrace three sub-centres that attract people due to their potential locational accessibility and socio-economic activities. These two sub-wards also attract people because they consist of administrative and health care facilities. Households' surveyed indicated 48.6% male and 51.4% female. About 80% of the households

are landlords and about 20% were tenants. This situation suggests that many persons find cheap land in peri-urban areas and build their own residential houses.

Population has been increasing rapidly in Charambe Administrative Ward. For the three consecutive national censuses which were conducted in 1978, 1988 and 2002, the population increased from 3,072; 5,452 and 8,286 respectively.

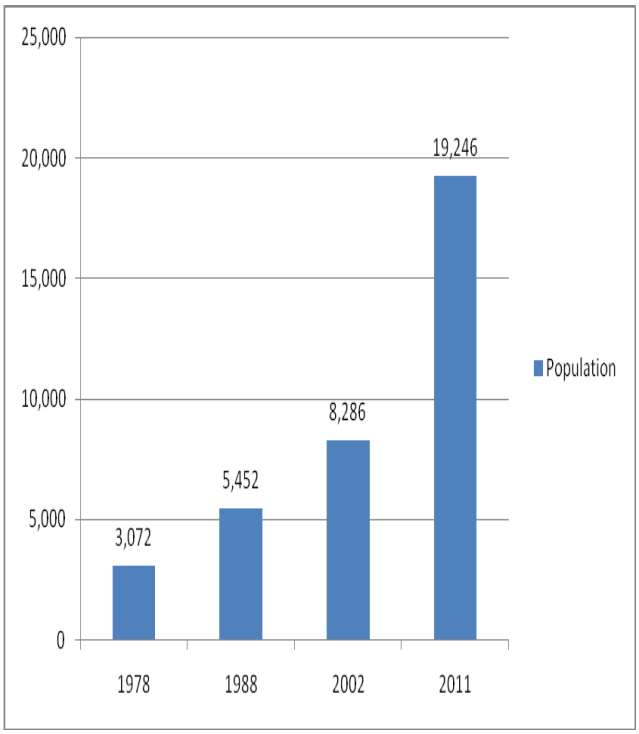


Figure 6. 2: Population growth in Chamazi administrative ward (Source: National Bureau of Statistics, 2002 and Fieldwork 2011)

The population growth trend changed sharply between 2002 and 2011. This is the period of rapid urbanisation. This fact is in line with households' survey which showed that most of the inhabitants have migrated into Chamazi in the period between 2003 and 2011. This is based on the analysis which was done by SPSS on the duration of stay in the area which showed a mean duration of 8.49; this is exactly the same period that is between 2002 and 2011. Figure 6.2 depicts population growth between 1978 and 2011. This implies that rapid population increase in Chamazi is largely due to immigration, whereby, about 84% of people were migrated to Chamazi for the past ten years.

Households' survey[51] indicates that immigration has largely contributed to rapid population growth in Chamazi. For the past decade, about 84% of households surveyed migrated to Chamazi (Figure 6.3). High population increase implies that there is also increasing demand of health care facilities, shelter and land for other urban functions. As the population increases, more land is required for residential housing, commercial activities and other community facilities.

[51] Analysis of duration of stays of households' surveyed in May, 2011

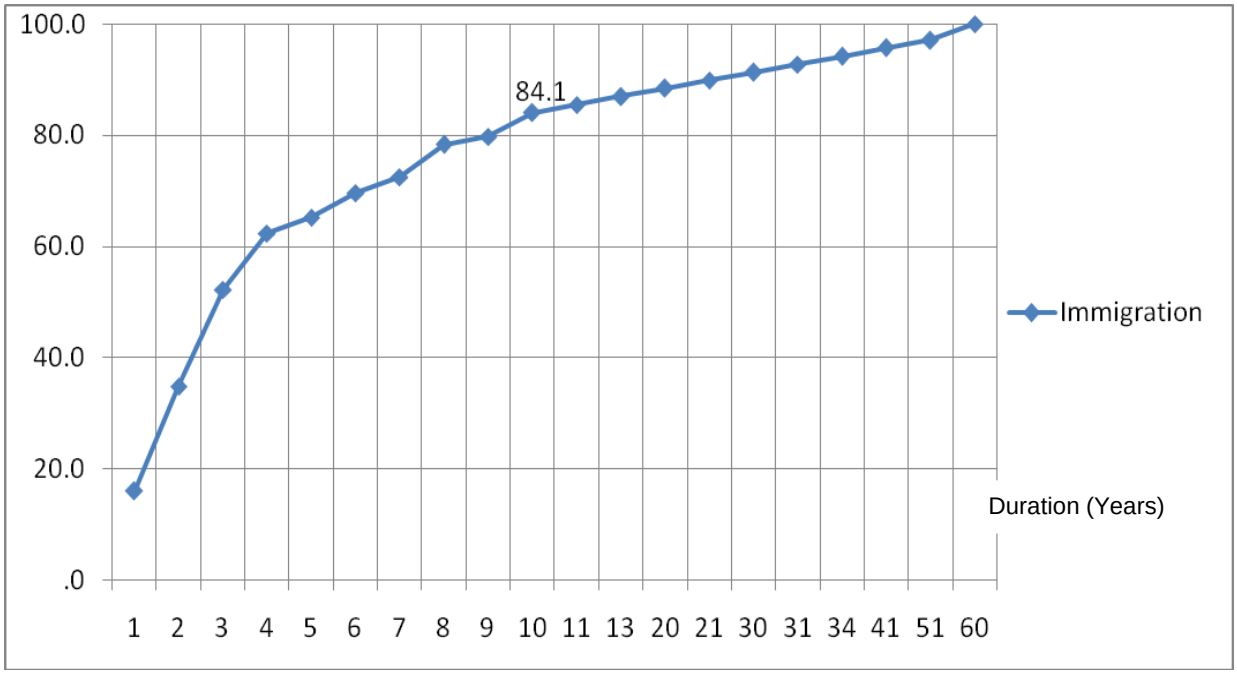


Figure 6. 3: Immigration in Chamazi for the past sixty years (Source: Fieldwork, May 2011)

6.2.2 Physical accessibility as a key factor for rapid immigration at Chamazi

The completion of the all-weather road in 1996, which connects the trading centre at Rangi Tatu in Mbagala with Mbande at Chamazi, marked the beginning of a new wave of migrants into Chamazi Ward (Kamat & Nyato, 2010). This is in line with households' survey which indicated rapid immigration in 2000s. Among others, the road facilitates the rapid public and private transportation of people and goods between Chamazi and the city; development of commercial activities and residential housing along the road. The road has also facilitated sand mining activities from the surrounding villages where youths often find cashial employment related to quarrying activities. Figures 6.4 to 6.9 show existing situation along the road in the selected parts of Chamazi.

Figure 6. 4: All-weather tarmac road (Rangitatu-Mbande Road)

Figure 6. 5: Mbande road facilitate income generating activities and transportation of goods and services

Figure 6. 6: Bus-terminal along Mbande road at Magengeni Subward- centre

Figure 6. 7: Agro-produce market at Magengeni Subward centre

Figure 6. 8: Residential housing construction

Figure 6. 9: Sign posters advertising availability of land for sell (informal land transactions)

Existing situation at Chamazi as depicted in the pictures above provides general picture of characteristics of peri-urban areas in Dar es Salaam city. The key features include competition between farming land and residential housing development (Figure 6.8), informal land subdivision and informal land transaction (Figure 6.9).

Co-existing of urban and rural land uses such as agriculture, residential areas and concentration of retails and whole sale shops; sporadic residential housing development and limited transport and other urban services (Figure 6.11). The fact that about 20% of households surveyed are tenants suggests that, despite the long distance to the city centre, some persons still seek rental houses in peri-urban areas. But the majority build their own houses following informal land sub-division.

Figures 6.10, 6.11, 6.12 and 6.12 characterise informal land development in part of Chamazi in peri-urban areas.

Figure 6.10: Settlement development and densification close to the main road (Magengeni trading centre)

Figure 6.11: Sporadic housing development

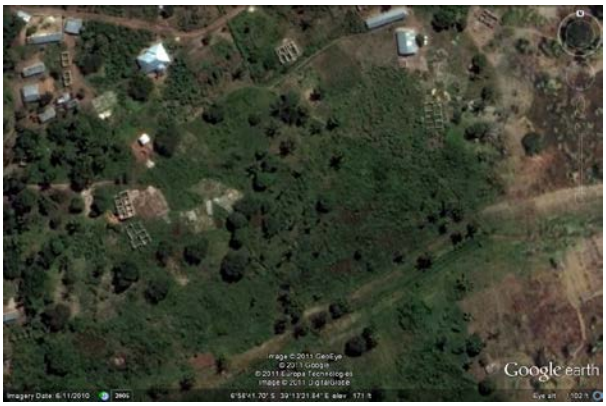


Figure 6.12: Sporadic housing development

Source: Google Earth, 2011

Figure 6.13: Sparsely housing development

6.3 Location and Distribution of Private Health Care Facilities

Chamazi Administrative Ward has only one private dispensary and two government dispensaries. The private dispensary is situated at Mbande Sub-centre which is located at Magengeni sub-

ward. The two government dispensaries are located at Msufini and Mbande Sub-Centres respectively. There is no higher order health care facility such as health centre or hospital.

6.3.1 Location and distribution of health care facilities

Three dispensaries are distributed only to the two Subwards namely Msifini and Magengeni. The rest four sub-wards have no health care facilities (Table 6.2). These two sub-wards are potential node for urban development as they are traversed by main road from RangiTatu to Mbande. Like in Charambe, analysis of spatial distribution of health care facilities at Chamazi shows spatial correlation between location of health care facilities and main road.

Table 6.2: Distribution of private health care facilities by Sub-wards

S/N	Subward name	Population	No. of facilities	Facilities' types
1	Magengeni	4,000	1	Dispensary
2	Msufini	8,314	0	No health care facility
3	Mwembebamia	1,022	0	No health care facility
4	Rufu	2,078	0	No health care facility
5	Kiponza	2,520	0	No health care facility
6	Kisewe	1,312	0	No health care facility
	Total	**19,246**	**1**	

Source: Chamazi Sub-ward's Offices, May 2011

Analysis of distribution of health care facilities at Chamazi shows that physical accessibility is the key determining factor for location of health care facilities. That is why all the three health care facilities are located along the main road that connects Chamazi and Charambe so as to maximize accessibility. In addition, location of private dispensary at the road junction emphasizes the role of accessibility in determining location of private health care facilities.

Although demographic factor does not seem to be given priority in providing private health care facilities, high accessibility is intertwined with population densities in a given geographic area. It is quite clear that distribution of health care facilities by Sub-Wards does not show any correlate between private health care facilities and population sizes. For instance, there is no private health care facility at Msufini Subward which has the highest number of people at Chamazi. While there is one private health care facility at Magengeni which has almost 50% less inhabitants than

Msifini. Msufini is also the largest sub-ward at Chamazi in terms of geographical size[52]. However, the large part of Msufini is not accessible by car (Figure 6.14).

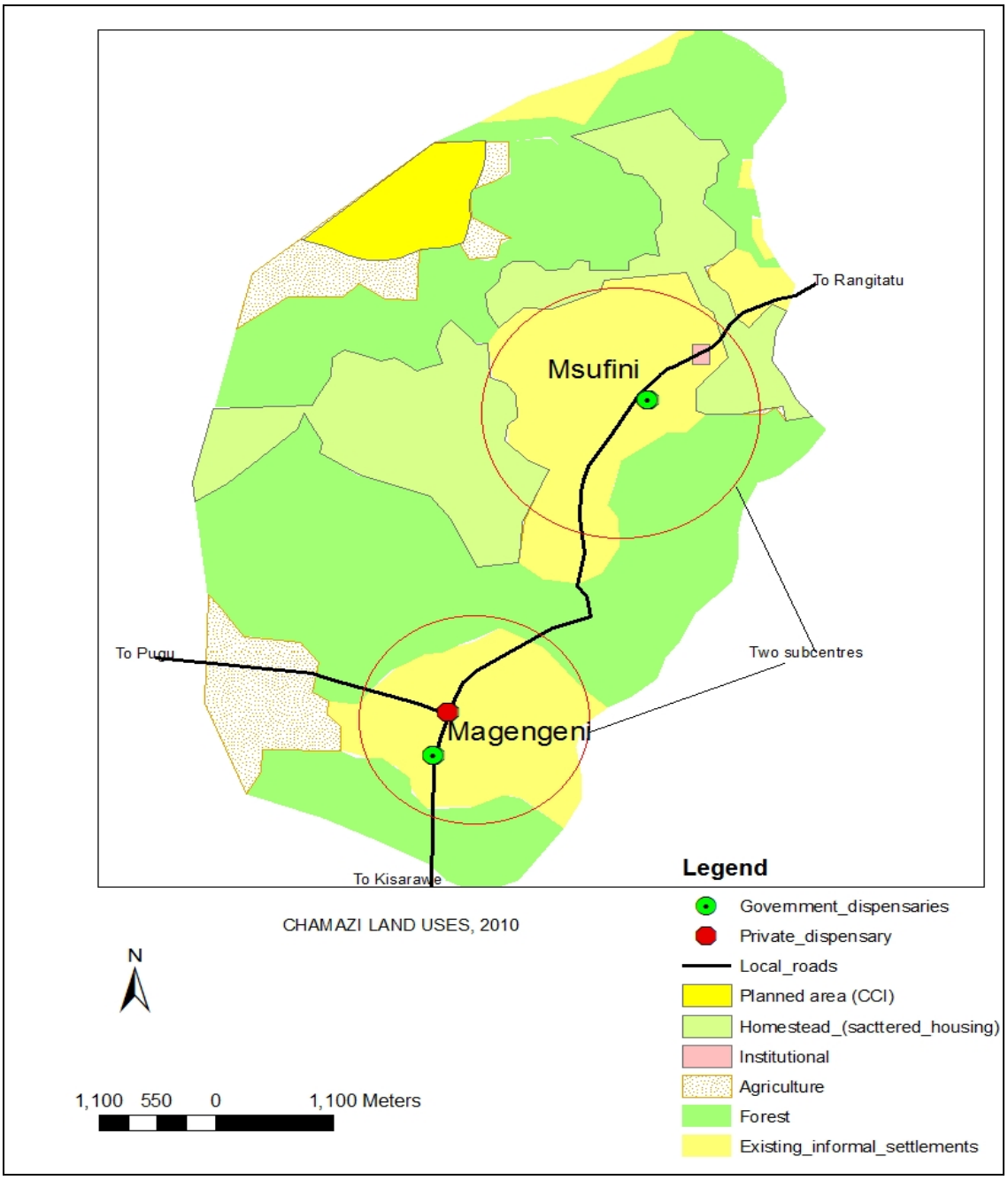


Figure 6.14: General land uses at Chamazi Ward showing distribution of health care facilities

[52] Key Informant (Ward Community Development Officer) and Msufini Sub-Ward Chairperson, May 2010 at Chamazi Sub-Ward Office.

The most developed area in this ward is one which is traversed by main road that heading to Mbande from RangiTatu. It is this highly accessible part that has government dispensaries, Ward Head Office, Police Post and Msufini Sub-ward government office. Analysis of physical accessibility and spatial distribution of health care facilities at Chamazi suggests strongly that physical accessibility is one of the major areas for spatial intervention. This could be one of the motivating factors for location and distribution of private health care facilities and other urban services in rapidly urbanizing cities.

6.4 Accessibility

Location of Hekima private dispensary adjacent to road junction, local bus terminal and trading activities make it highly accessible in a spatial term. As there is only one private health care facility (Hekima dispensary) in Chamazi, the distribution aspect of spatial components of accessibility is not discussed, thus, analysis is based on the locational aspect.

The strategic location of Hekima dispensary at the road junction makes it highly accessible both by public transport (vehicular access) and on foot. Its closeness to the bus terminal, shops, and local market place maximize customers' (patients) contact to the dispensary.

Figure 6.15: Location of Hekima dispensary from different views

It was easy to trace patients' destination as every day patients who come to Hekima dispensary are registered in registry diary as a way of keeping records and also to track income pattern. The main items in the registry diary are the name of the patients, place he come from, age and gender. Then permission to go through the diary in order to know how many patients seek health care services in the dispensary was granted.

Number of patients registered in Hekima dispensary for the three days was 102. Analysis of the list of patients recorded for the past three consecutive days indicated that the facility receive an average of 25 patients per day. It was revealed that patients of all age cohorts receive health care services from this dispensary. These people were coming from different areas from within Chamazi Ward and outside the Ward. Table 6.3 summarises the results as analysed by the SPSS.

Table 6.3: Patients attending Hekima dispensary and their destinations

Street name	**Frequency (patients)**	**Percent**
Mbande	35	34.3
Msongola	23	22.5
Chamazi	18	17.6
Kisewe	13	12.7
Kitonga	3	2.9
Tambani	4	3.9
Mipeko	2	2.0
Mvuti	1	1.0
Tandika	1	1.0
Uvikiuta	1	1.0
Yombo	1	1.0
Total	**102**	**100.0**

Source: Hekima Dispensary, May 2011

Table 6.3 shows that many patients (34%) who seek health care services from Hekima private dispensary are coming from Mbande which is the settlement where the dispensary is situated. There are also patients whose destinations are about 4 to 6 kilometres from the dispensary such as Msongola (22.5%), Mvuti (1%, Tambani (3.9%) and Yombo (1%). It seems that more males seek medical health care in the private dispensary. This situation is quite different from observation made in government dispensaries which indicated more females than male. It was observed that more females prefer to go to government dispensary in the area because of special services such as MCH and Clinic for pregnant women which are rare offered in private dispensary. Figure 6.16 below shows the percentage of patients based on their ages. The general trend show that there are more children and youth as compared to middle ages and the elders.

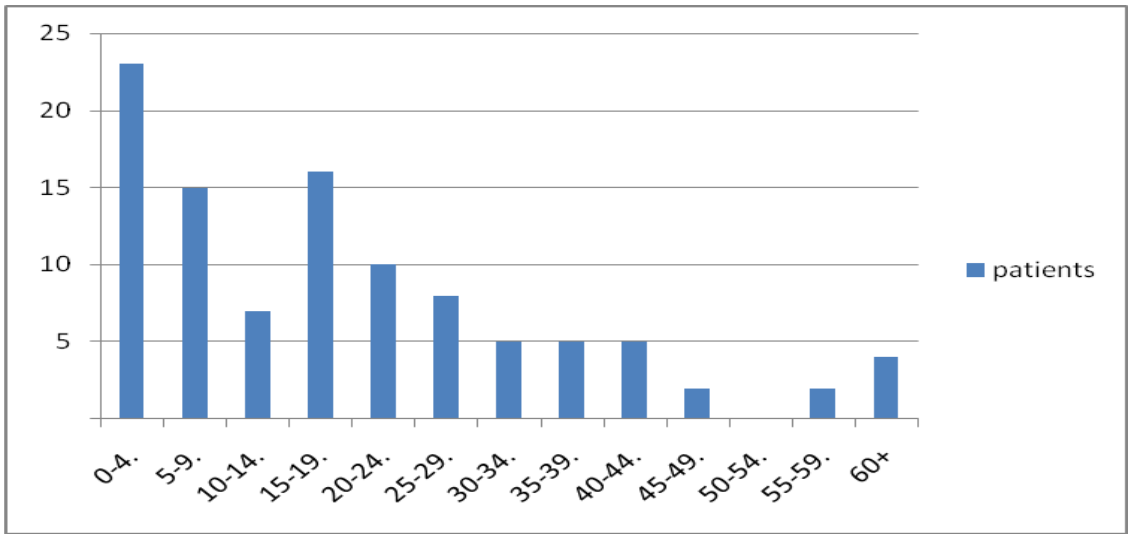
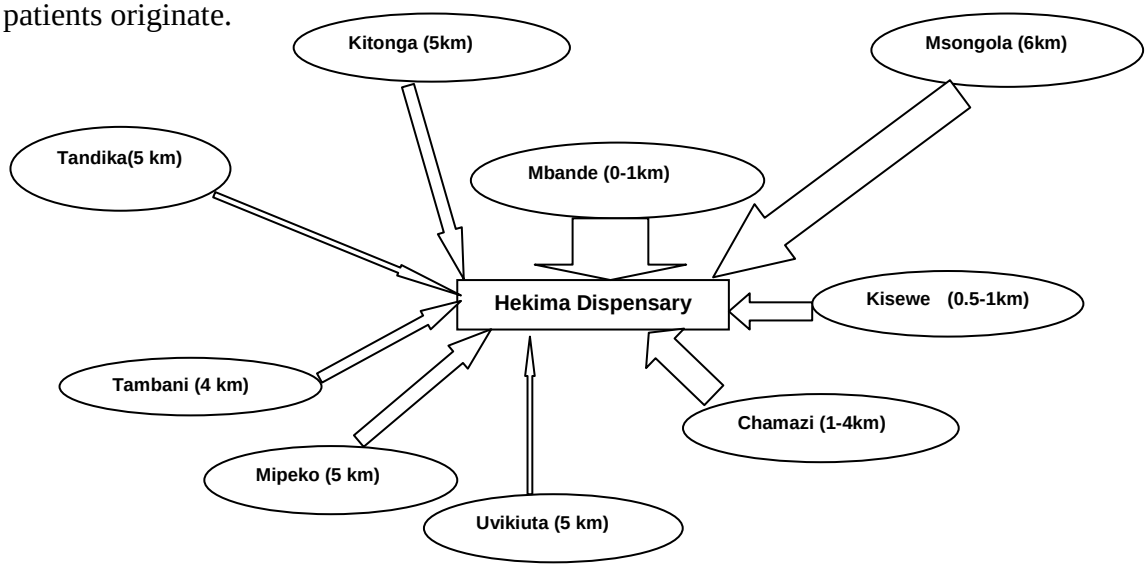


Figure 6.16: Patients seeking health care services at Hekima dispensary and their age-cohorts.

The patients whose ages fall between 45 and 59 were least attending the private dispensary at Chamazi. Households' survey indicated that such group prefer to seek health care from government health care facilities at Chamazi. This result suggests that new approach should be developed to locate and distribute health care facilities to meet health care needs for different socio-economic groups in the community. Private health care providers cannot replace the government unless their situations are improved. Figure 6.17 shows the different places where patients originate.



NB: The size of the arrow is directly proportional to the number of patients

Figure 6.17: Distance from different destinations to Hekima dispensary

About 65% of patients who seek medical services from Hekima Dispensary come from Chamazi Ward; specifically from Mbande Subward[53]; the rest 35% of patients come from different areas outside Chamazi ward largely from surrounding settlements such as MsongolaMipeko, Kitonga and Ukikiuta. Figure 6.18 shows the rough sketch of flow plan for Hekima dispensary showing space uses (indoor functions).

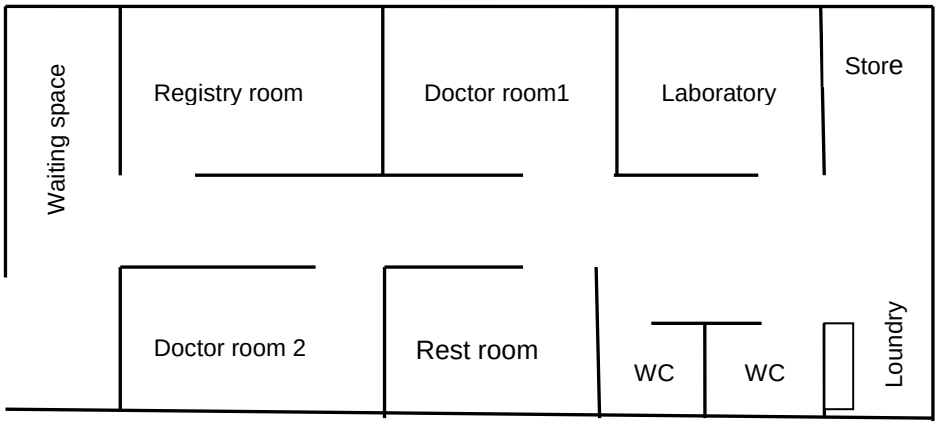


Figure 6.18: Flow plan for Heakima Dispensary

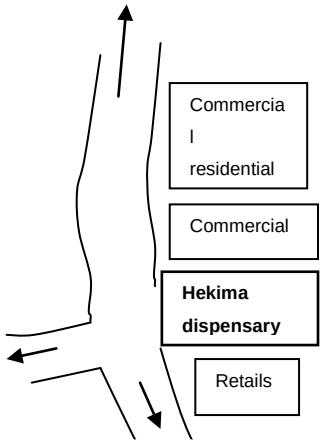


Figure 6.19: Site Location

Hekima dispensary is hosted in a rental Swahili house modified to meet health care requirements. Figure 6.19 sows the site layout where Hekima dispensary is situated. Its accessibility has been maximized by its location adjacent to the road junction.

Table 6.4: Preference to health care facilities at Chamazi Administrative Ward

S/N	Health care facilities	Frequencies	Percent
1	Government dispensary	57	81.4
2	Private dispensary	6	8.6
3	Mixed–government and private dispensary	6	8.6
4	Others (traditional healers)	1	1.4
	Total	**70**	**100.0**

Source: Fieldwork, May 2011

When the question of which health care facilities, the household would prefer to seek health care services between private and government if all costs were to be met by the government, results

[53]Hekima Dispensary is situated in Mbande Subward Hekima

were mixed, percentage for those preferred to government health facilities dropped from 81.4% to 79.8%. On the other hand percentage of those who preferred to private health care facilities over government health care facilities increased from 8.6% to 18.8% while percentage of those who preferred both government and private health care facilities decreased from 8.6% to 1.4%. But the general trend is that in either situation one or two, majority still prefer to go to government health care facilities.

Why majority of people still prefer to go to government health care facilities

Through in-depth interview with Assistant Medical Doctor in charge in Mbande government dispensary, revealed five major reasons for persons to prefer government health care facilities. This was the follow-up question on why over 80% of inhabitants[54] in Chamazi still prefer to government health care services. It was realised that main reasons for preference to government health care over private were affordability, free MCH, availability of diagnostic equipment, coordinated referral network, skilled and competent medical staff.

Affordability in the sense of low cost of treatment in government health care facilities, free advisory services in relation to reproductive and child health (RCH) and availability of drugs for TB and HIV Aids. In this situation, patients find their own ways to get into government health facilities without thinking much on the additional cost for consultation, diagnosis and medicines. The referral network is coordinated such that it is easy to be transferred from one health care facility to the other based on the skills required and the nature of the problem. Health care facilities which are well equipped are known by the government and patients can be easily transferred from one government health facilities to the other with relatively low cost. Treatment costs are cheaper even at the higher level (governmental hospital) as compared to private health care services. Inhabitants are aware of reliability and sustainability of public health care services and the safety net that government provides. Mbande governmental dispensary was constructed in 1983[55]. It has adequate outdoor spaces estimated at one hectare which can be used for future expansion.

[54]Results from 70 households surveyed during the fieldwork at Chamazi Administrative Ward, May 2011.
[55]Source: Mbande government dispensary, May 2011

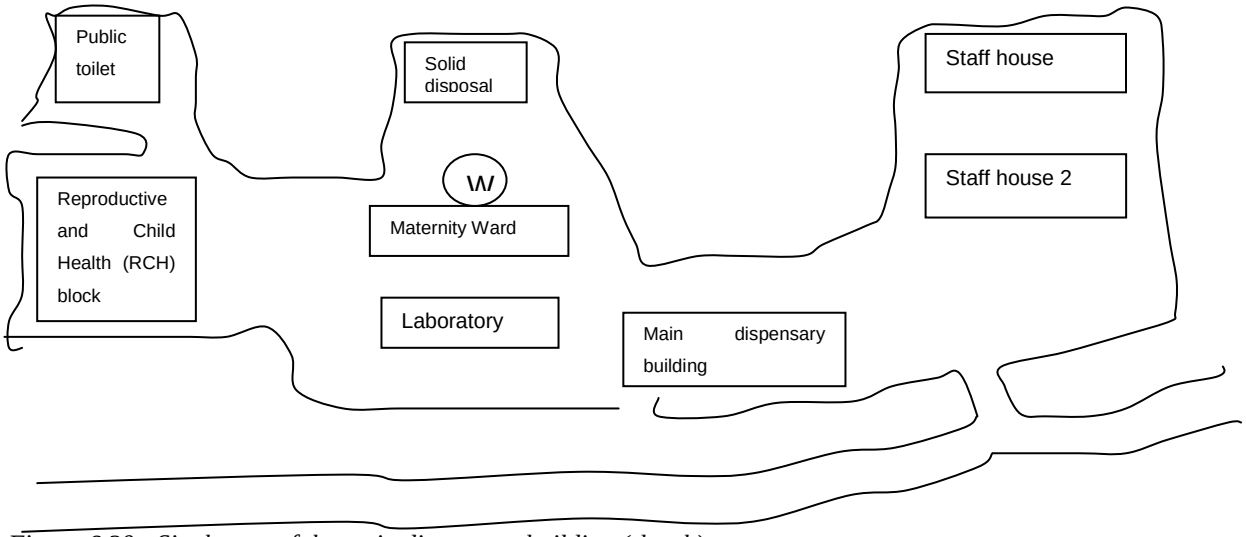


Figure 6.20: Site layout of the main dispensary building (sketch)

Laboratory

Reproductive and Child Health

Main dispensary

Maternity building

Solid waste disposal point

Staff houses

Public toilet

Undeveloped space within

Main entry (access road)

Figure 6.21: Existing functions of Governmental dispensary (parts of the site layout)

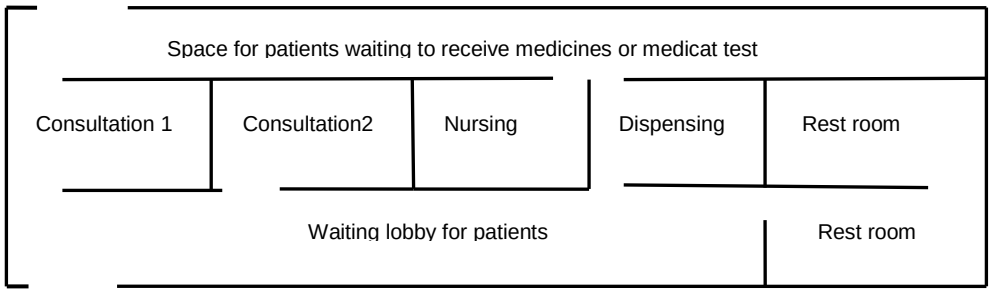


Figure 6.22: Floor plan (sketch) for the main dispensary (refer to the site layout in Figure 2.20)

There are also 2 staff houses for the medical workers at the dispensary compound. Other facilities include outdoor public toilet, open spaces, places where advisory services and counselling are offered and clinics for children. The dispensary receives adult patients between 100 and 150 per day and 100 to 200 children per day.

Why some persons especially middle and higher income earners prefer to private health facilities over government health facilities

Analysis of household survey indicates that there are five main potential factors that attract people to private dispensary at Chamazi (Table 6.5). These are short waiting time, good customer care, less bureaucracy and availability of medicines, and 24working hours. Out of 70 household surveyed, 14 households prefer to seek health care services from private dispensary as compared to existing government dispensaries based on the aforementioned factors.

Table 6.5: Factors that attract people to private dispensary at Chamazi

Reasons to prefer private health care facilities	**Responses**
Good customer care	5
Short waiting time	3
Less bureaucracy	3
Availability of medicines	2
Full time opening (24hrs)	1
Total	14

Short waiting time in private dispensary at Chamazi was very important reasons that were considered by patients. One person who was interviewed during household surveyed argued

that:*"in private hospital[56] patients are cared, there is no queue; you quickly get services and proceed with your own activities"*. Unlike in government health care facilities where waiting time is quite long due to congestion of patients, there is few people in private dispensary and customer care is appreciated. Out of 70 households surveyed 67 households agree that customer care in private health facility is good.

Availability of medicines was also attracting many patients to private health care facilities. It was noted that 56 households out of 70 agreed that medicines in private health facilities are available unlike in government health facilities. Other could not agree as they think that only drugs for diseases that occur frequently such as malaria, coughs, typhoid and worms are available.

Less bureaucracy and working for 24 hours is also considered to be potential for growth of health care facilities. People would like to get health care services whenever they need and be sure that they can be obtained all the time. Many government health facilities particularly dispensaries are not opened during the weekend especially Sunday, while private health care facilities are opened in 24 hours. Many sign posters of private health facilities indicate that they are opening for 24 hours. There is less procedure to access private health care facilities and services are provided instantly as there are usually few patients.

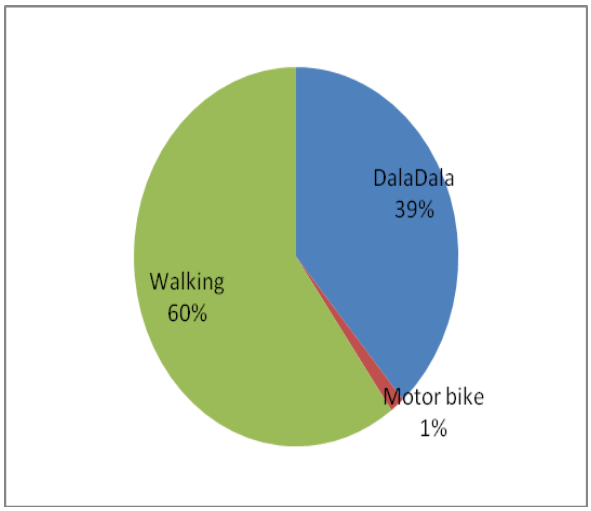
Referral arrangement is another critical issue that limits access to private health care facilities. Households' survey shows that most private health care providers rarely issue referral notice. While 6% of the households surveyed are not aware about referral situation in private health care facilities, 29% have said that private health care facilities never issue referral notice. The experience of the rest 65% is that they issue referral notice in two ways namely verbally through advices and in written form where a letter is written to the public health care facilities in relation to conditions of the patients (Table 6.6).

[56]The term "hospital" at local community (at grassroots) usually means health care facility. Often local people will call even a dispensary or clinic "hospitali" in Swahili but it may really not mean a hospital in a technical term.

Table 6.6: households' responses to the referral situation in private health care facilities

S/N	Referral notice in private health care facilities	YES	Percentage (%)
1	Issue referral verbally	3	4
2	Issue referral notice in written form	43	61
3	Do not issue referral notice	20	29
4	Note aware	4	6
	Total	**70**	**100**

Lack of clarity in issuing referral notice in private health care facilities, hinders access to private health care facilities and make them more isolated from the health care system. People could prefer to go to government health care facilities in order to avoid these inconveniences.



With respect to mobility, about 60% of 70 households surveyed access health care facility by walking. Persons who use public transport (daladala)[57] accounts for 39% (Figure 6.23). This can be explained in many ways. At Chamazi there are fewer health care facilities in a geographically bigger area as compared to urban Ward, with sparsely housing development. Sparsely and sporadic housing development implies also irregular distribution.

Figure 6.23: Means of transport to health care facilities

About 34.3% access health care facilities for an average of 15 minutes. These are inhabitants who live close to private and government health care facilities at Msufini and Magengeni sub-centres. These two sub-centres accommodate 64% of all inhabitants in Chamazi Administrative Ward. Figure 6.24 depicts percentage of patients interviewed and time they spend to reach health care facilities in Chamazi.

[57] Daladala is a name given to a public transport (minibus) by city´s residents

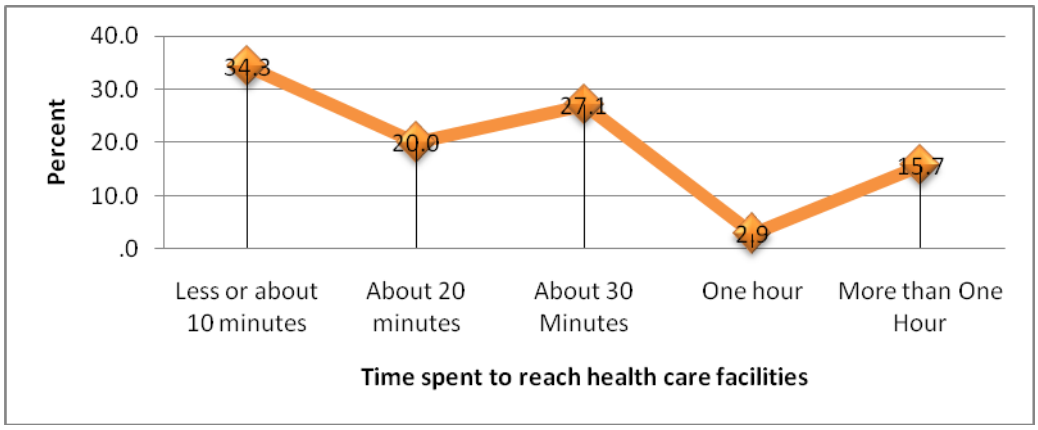


Figure 6.24: Time spent to reach health care facilities from different destinations at Chamazi Ward

There is various interpretations that can be drown from Figure 6.24. As expected, majority spent 10 minutes to reach health care facilities, followed by those who spend 30 minutes and lastly those who spend more than one hour. Households who live in other sub-wards spent more than one hour to reach health care facilities and some of them rely on Daladala[58]. For those who stay outside Chamazi Ward (surrounding villages), spent between 3 and 6 hours (walking). Sometimes they have to spend some hours waiting for the minibus at the bust stop[59].

The rise and fall (fluctuation) shown in Figure 6.24 suggests the sporadic settlement development resulted from informal urban expansion in peri-urban area. The majority who stay close to health care facilities, along the main road, usually spends an average of 10 minutes to reach facilities. However, as informal settlement development lack regular of continuity in peri-urban areas as explained earlier in this Chapter, the average time to reach facilities are also irregular.

Rival case: Saku settlement

Saku hamlet is a remote and new settlement of Chamazi which forms part of Msufini Sub-Ward, about 4 km from the main road. Here a complimentary survey was made because this was a new settlement which was part of Msufini Sub-Ward which lacks health care facilities. Household survey in this new settlements indicated that there is no electricity, and water supply is largely

[58]Daladala means public minibus operating in the city
[59] Observations and randomly interview with patients in one of health care facilities in Chamazi

through private well. Many persons in this area rely on a private medical laboratory which offers limited health care services. Sometimes owner has to provide these services for free as many people come to his laboratory without money. There is also medic shop (pharmacy) that provides medicines upon receiving results from the laboratory.

Pregnant mothers, who live in Saku settlement, have to travel to health centres at Rangitatu or Temeke Hospital. Transport is a problem as there is no single trip to the nearest health care facilities. Bus connections have to be changed at least three times to the city centre or two times to the nearest dispensary at Mbande or Msufini Sub-wards. During the night one has to hire a taxi from neighbour, who happens to own a saloon car. The cost for a single trip to the city centre amount to TShs 40,000/- (USD 25) per trip, and TShs. 80,000/- (USD 50) for a return trip.

Figure 6.25: Private Laboratory, external and internal appearance , Saku settlement, 2011

Solar panel was used to generate electricity while a microscope was the only device available. Looking at the building, on the wall it is written "BABYLON DIAGNOSTIC CENTRE" which indicate the name of the facility. Other words were written in Swahili language "VIPIMO KWA JAMII - BAADHI YA VIPIMO NI BURE, UTI, URINE" as the main title meaning "Medical tests for the community" some of them are done free of charge including UTI and urine".

6.5 Socio-cultural Beliefs

Discussion with Ward Community Development Officer[60] at Chamazi provided imperative data on the traditional beliefs that impede access to health care facilities. In relation to health services she said:

[60] Key informant at Chamazi Administrative Ward

> "Many patients are not taken to the hospital for instance there is this thing they call "degedege"[61], polio", you hear people saying "there is no hospital, let us go for Kiswahili, you see the patients is shivering. But what I know is that when malaria is at critical condition patients feel cold and shivering, it is normal thing but for some people at Chamazi, this has something to do with tradition healers, may be the patient is witched because he built a new house.

She concluded that tradition beliefs have been the set-back for health improvement in the area. People in the area are largely low income earners and some of them have not even received the basic primary education; majority of do not motivated to go beyond primary education.

Figure 6. 26: Sign posters for traditional healers at Chamazi Ward

Posters for traditional healers are usually located in highly accessible area where people can see them easily. Such areas include electrical poles; at the road junctions and at the bus stops. Figure 6.26 shows the sign poster of traditional healer called "Dr. Lutonga"; it is strategically located along the road junction leading to the local market place (SOKONI in Swahili language). It is also adjacent to the sign poster that indicates the private health care facilities which were then closed as it couldn't provide services as advertised[62].

According to the information obtained from the discussion with local leaders, there are over ten registered traditional healers in Chamazi. In the area, the good indicators for their presence are the widespread of posters and signs that advertise their services.

Given the fact that this area (SAKU) has no health care facilities and the nearby dispensary is about 4 km from the area, many inhabitants are likely to seek health care from the traditional healers. During the in-depth interview with Assistant Medical Doctor, in government dispensary at Chamazi, argued:

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[61]Degedege is a kind of disease that one cannot sleep continuously, he/she wake up without conscious and sleep sometimes shouting while sleeping.

[62]The private owner put a poster indicating the presence of private dispensary which was not true because there was private laboratory instead.

> ” there is traditional beliefs to prevent people from bringing their patients to “hospital”, even for the rich family, at one time we received a young patient who was out of conscious because he was suffering from malaria but they didn’t bring him, instead he was given a boiled traditional medicine”.

Although, social-cultural beliefs seem to affect access to health care facilities, the is a need to investigate more on whether the social-cultural beliefs are associated with limited public facilities, educational level and affordability to private health care services.

6.6 Equity

In investigating equity variable at Chamazi, the following are the key findings, 60 households which is about 86% of the surveyed households are aware about the free access to health care by the disadvantaged group. Only 10 households (14%) were not aware on the policy commitment to offer free health care for disadvantaged. Table 6.6 shows some of the methods used to disseminate information to the community on free access to health care by special group

Table 6.7: How most of the persons were made aware on vertical equity in health care services

S/N	Mechanisms used to raise awareness	Household responses (%)
1	Mass media like TV and Radios	74.6
2	Meetings held by sub-ward government	11.3
3	Advertisement on notice board in government health facilities	9.9
4	Hearing from other members of the community	2.8
5	Politicians during election campaign and meeting with councillors	1.4
	Total	**100**

Source: Source: Fieldwork, May 2011

Mass media like TV and radios have made significant contribution in disseminating information on access to health care facilities.

Does disadvantaged group access health care facilities for free?

Majority of people have proven that it is difficult for special group to get free health care services. About 77% of households’ surveyed indicated that it is not easy for special group to access health care for free. Although about 7% think that disadvantaged group get free services, yet they argued that “free services do not exist”. Various reasons were given but the common one included:

- After the prescription which is done for free patients have to buy medicines which are not available in government health care facilities.

- For pregnant women, they must purchase delivering kits.
- For elderly and disabled getting to health care facilities are difficult and there is no mechanism to facilitate their access. There are no mobile clinics to reach them. Some of them are very poor and cannot even afford transport cost.

One of the persons argued sensibly that:

> "My mother was 70 years of age, but when she was sick I purchased everything, only panadols are available; free health care for elderly is only in the policy, no implementation as there are no medicines in government health care facilities".

6.7 Motivation

This section traces the story of Dr. Godson T. Ngwatu, who was professionally motivated to establishment private for profit dispensary in Chamazi. He named his dispensary Hekima, a Swahili word which means wisdom. Apart from being owner of the dispensary, he was also a retired medical doctor who has worked with government regional hospital in Morogoro Municipality for more than 20 years. No doubt that he has accumulated adequate experience in health care service delivery. When the inhabitants new that he was a retired doctor, prior to the establishment of his dispensary, many persons were coming to seek health care services from his home

Prior to establishment of his dispensary, he made a survey and found that there is only one government dispensary in the area (Magengeni Sub-Ward). He could see a lot of people seeking health care services, also coming from different areas and even outside the Ward. He also observed congestion of patients in Mbande government dispensary. He could trace where patients were coming from and found that most of them were coming from the surrounding villages between 2 and 4 kilometres away from Chamazi. This was opportunity for him to continue practicing his professional and also opportunity to continue earning income after retirement. The meaning of this is what he said during the interview:

> "Government alone cannot provide health services for all. I want to practice in a freedom. I also want to apply my professional in practice as I have already retirement. I also want to promote my economy in the course of providing health care to the persons".

In the process of planning how to operationalise his business idea, he got difficulties in acquiring building, where he could locate his health care facility. At that time, he could not afford to rent one of the buildings at the centre. While he was walking around he saw a building adjacent to the road junction, which was under construction. It was very close to the road almost within the road reserve, but because there was no development control as it was unplanned area, no one could stop the construction of the building. At that time development was not intensive as it can be seen today. He decided to negotiate with the landlord on the terms of agreement for renting. Finally consensus was reached that the rental per month would be TSh 170,000/- (USD 100). It was also agreed that any renovation which he could made, should be communicated to the land lord for consent.

He has never received any incentives from the government to facilitate or improve his health care services. He purchases medicines from private whole sale shops for drugs in the city centre. He complained that prices for drugs fluctuate every day. He also paid registration fees of TSh. 80,000/-(USD 50/-) and regular annual registration fees of TSh 40,000/- (USD 25). This situation shows that running a private dispensary is really business activities that one has to accumulate capital for initial investment. He must pay rental fees for the building, electricity, wages for the workers, sanitation and water supply.

6.8 Hierarchy

Many persons in the surrounding villages namely Mkuranga and Msongola depend on health care facilities which are located in Chamazi (Figure 6.27). As such planning for the provisioning of health care facilities should focus beyond existing population (about 19,000) at Chamazi Administrative Ward.

In peri-urban areas, it is difficult to locate health care facilities based on the threshold population due to constant increase of population overtime due to both immigration and natural population increase. It is not practical to fix the minimum population that can support a particular health care facility "the threshold" due to extended dependence of surrounding villages on the existing

health care facilities in peri-urban area. On the other hand inadequate infrastructure in peri-urban areas reduces chances for private health care providers to compliment government in health care service delivery.

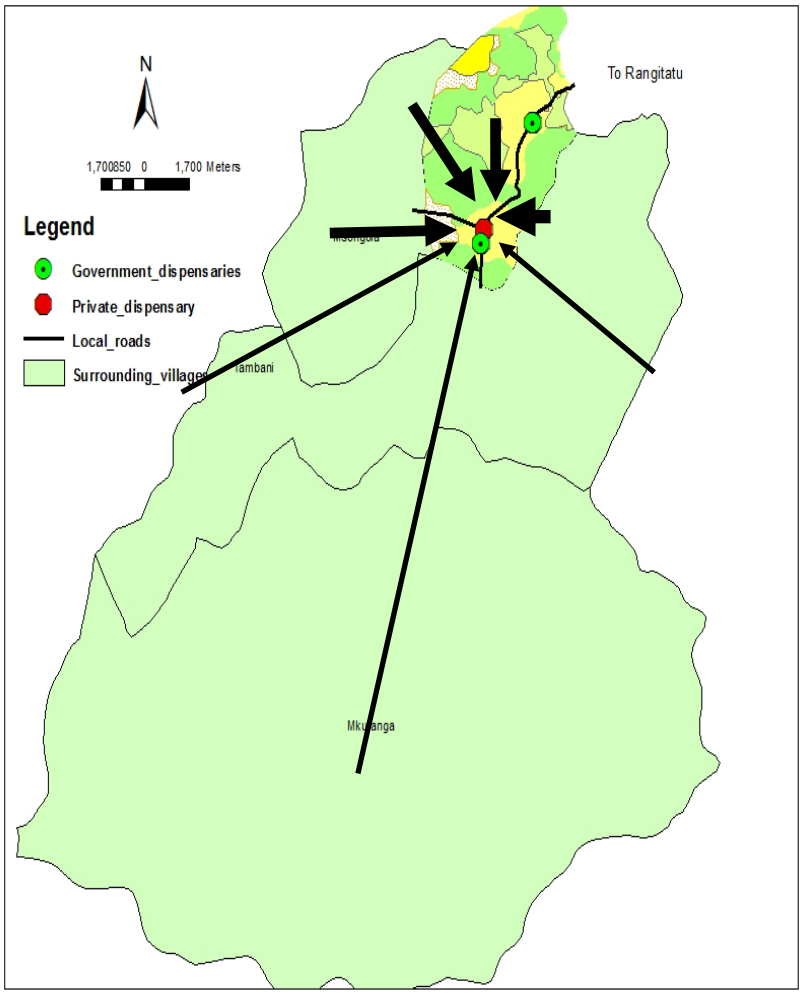

Figure 6.27: Patients flow to private and government dispensaries at Mbande

Higher order health care facilities like hospitals seem to respond positively with growing demand in peri-urban area. It should be noted that peri-urban area is changing to urban area (transition zone) hence proper intervention is necessary to improve urban health care service delivery.

6.9 Concluding Remarks

There are several main reasons for inadequacy health care services in peri-urban areas. The first reason is rapid population growth due to rapid immigration; the second reason is rapid informal settlement development which lacks basic infrastructures such as roads, water and electricity

hence less attractive to private health care providers; the third reason is lack of health care facilities in the surrounding villages.

From the presentations of the two cases, it has been found that the case of Chamazi differ significantly from the Case of Charambe. The next Chapter presents cross-case analysis summarising the key differences in order to justify the need for different approach in location of health care facilities in peri-urban area.

CHAPTER SEVEN

CROSS CASE ANALYSIS AND THEORETICAL REFLECTIONS

This section presents the cross case analysis for Charambe and Chamazi. It systematically compares the two cases based on the research variables which were investigated in the two cases. Reflections are then made to the policy and theories.

7.1 Cross Case Analysis

There are both similarities and differences between Charambe (case 1) and Chamazi (case 2). The essence of this section is to identify the main differences in order to substantiate that the preposition that private health care facilities are concentrated in urban areas and shy away from peri-urban urban Administrative Wards. The existing variation that exists between the urban and peri-urban areas provides new insights into how the public-private model in health care service delivery can work in both urban and peri-urban areas. Figure 7.1 compare research variables in the matrix format to make explanation more accessible.

Table 7.1: Comparative analysis: Summary

S/N	Research variable	Charambe (Urban Ward)	Chamazi (peri-Urban Ward)
1	Administrative-set up	It has 13 administrative Sub-Wards.	It has 6 administrative Sub-Wards.
2	Demography	Population size has increased from 83,098 in 2002 to 118,672 in 2011 which is an increase of 43%.	Population size has increased from 8,286 in 2002 to 19,246 in 2011which is an increase of 132%.
		Average household size is 6 in 2011 largely due to high number of dependants.	Average household size is 5 in 2011 as most of the young would like to stay in urban wards (not peri-urban).
		Population density was 77 persons per km^2 in 2002; and 110 persons per km^2 in 2011.	Population density was 1 person per km^2 in 2002; and 3 persons per km^2in 2011.

S/N	Research variable	Charambe (Urban Ward)	Chamazi (peri-Urban Ward)
		Immigration rate was 51.5% between 2002 and 2011.	Immigration rate was 84.1% between 2002 and 2011.
		Homogeneous population distribution due to housing densification within the administrative ward.	Sporadic population distribution due to homestead and scattered settlements within the administrative ward.
	Preference	About 20% of the households often seek health care services in private health care facilities. About 80% largely rely on government health care facilities.	About 9% of the households often seek health care services from private health care facilities. About 91% rely largely on government health care facilities.
3	Accessibility	Physical accessibility determines spatial location of private health care facilities. The area is more accessible and available infrastructures attract private health care providers.	Physical accessibility determines spatial location of private health care facilities. However, the area is less accessible and urban infrastructures are very limited in supply hence unattractive to private health care providers.
4	Distribution	There are 13 private dispensaries and one private health centre. They are distributed in 10 Sub-wards. There is also one government dispensary.	There is only one private dispensary located in trading centre in Magengeni Sub-ward. There are also 2 government dispensaries located in Msufini Sub-Ward which is also a trading centre.
		There are 2 Sub-wards that have no health care facility out of 13 sub-wards.	There are 4 sub-wards which have no health facility out of 6 sub-wards.
10	Hierarchy	There are lower and middle levels of health care facilities namely dispensaries and health centre. But they are not coordinated hence no hierarchical relation.	There is only one lower level of health care facilities (dispensaries).

7.2 General Discussions of the Findings

7.2.1 Demographic characteristics and their spatial consequences

Rapid population increase has several spatial consequences in distributing health care facilities namely informal urban expansion characterised by inadequate land for community facilities,

housing densification in the urban wards and sporadic[63] housing development in peri-urban areas. The comparison between migration patterns in Charambe and Chamazi shows that Chamazi (peri-urban area) experiences high level of immigration than Charambe (urban area).

Figure 7.1 and 7.2 provide overall picture of immigration patterns in the aforementioned cases.

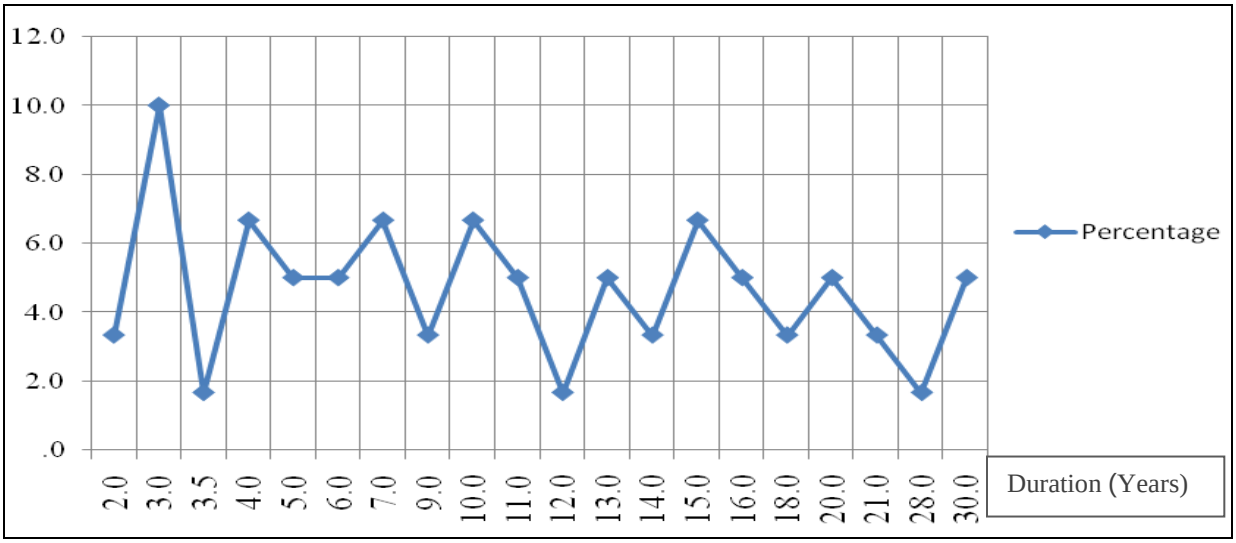

Figure 7.1 Imigration patterns in Charambe (Urban Administrative Ward)

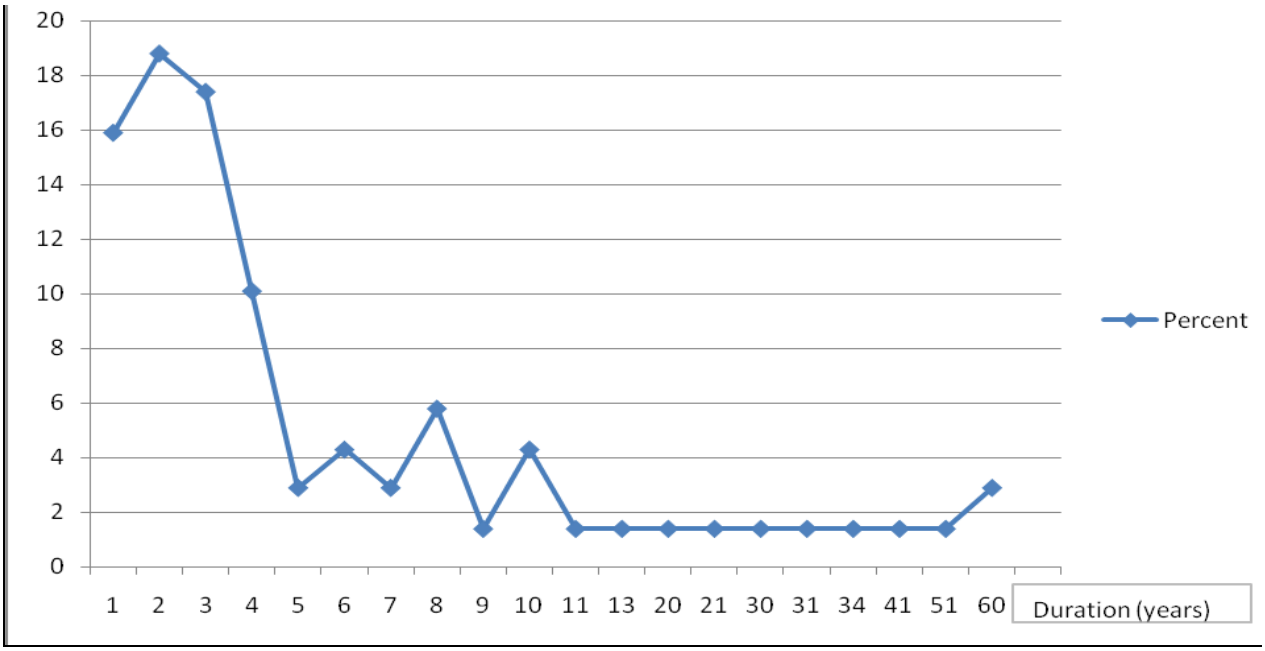

Figure 7.2: Immigration patterns in Chamazi (Peri-Urban Administrative Ward

[63] Sporadic is used to mean irregular and randomly settlement growth

The combination of rural-urban migration and natural population growth, increase demand for health care services in urban areas. This situation strains the existing health care facilities and hence the quality of services is lowered.

For areas like Charambe which already exhibits compactness, the available land for accommodating immigrants is through densification unlike in peri-urban areas where the ample land for development encourage urban sprawl. However, recent findings from the UN-HABITAL indicate that about 40% of the future urban population will reside in peri-urban area (UN-HABITAT, 2009). This envisaged population growth suggests that special attention need to managing urban growth in peri-urban area through providing services including health care facilities.

7.2.2 Physical accessibility and distribution of private health care facilities

In spatial point of view, the key determinant factor for location and distribution of private health care facilities has been road network. Areas that have high concentration of private health care facilities are also the most accessible areas in term of roads which facilitate public transport and movements of goods and services (Figure 7.3).

Analysis of distribution of private health care facilities in Charambe and Chamazi confirms empirically the initial preposition of this study that private health care facilities are concentrated in high accessible areas and shy away from peri-urban areas. The main issue is that informal urban expansion has left many settlements with poor accessibility and health care facilities despite the existence of large number of inhabitants. It follows that if the roads and other basic urban services are not extended to such settlements, the private health care providers will not locate their health care facilities; the situation that undermine geographical equity in health care. The increase in disparities in the distribution of health care facilities in urban areas is also due to the fact that, government for quite long time, have concentrated their efforts in improving health care services in rural areas, assuming that private health care providers would take care in urban areas. However, this has not been the case; urban areas which are not accessible cannot provide a conducive environment for private health care providers. Similarly, public health care facilities are also not available in such areas.

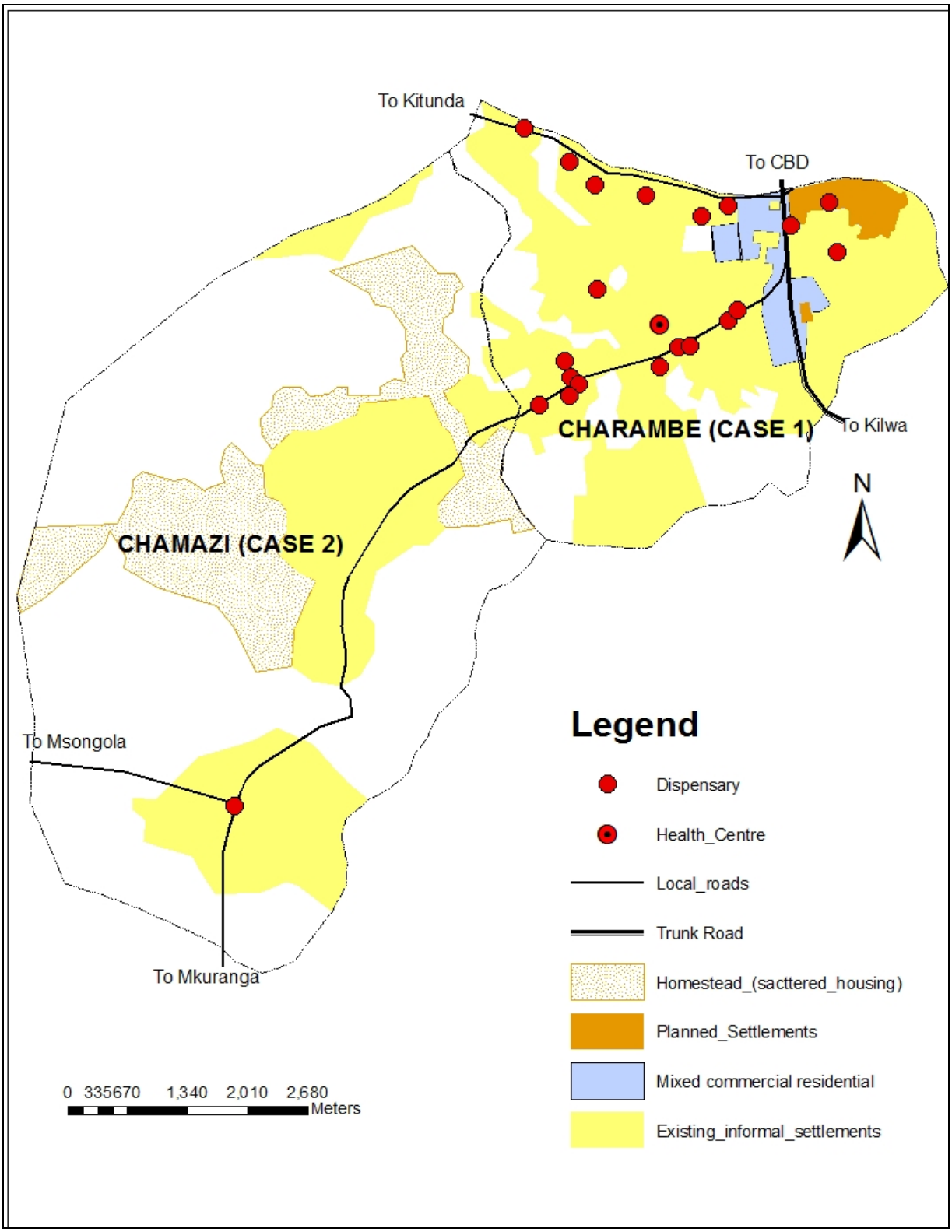

Figure 7.3: Location and distribution of private health facilities in both Charambe and Chamzi

7.2.3 Social-cultural beliefs

Observation from Charambe and Chamazi shows that social-cultural factor hinders access to health care facilities. Although it is crucial to promote traditional medicines, yet there are tendencies of taking patients to traditional healers even for the diseases that need medical expertise and proper diagnosis. Complains have been reported that patients who were taken to the traditional healers were later on sent to health care facilities in bad shape. Even patients with common diseases such as malaria, typhoid and cholera are sometimes go to traditional healers; when the condition deteriorate the health care facilities become the last resort.

7.2.4 Spatial and non-spatial factors influencing access to private health care facilities

Analysis of accessibility from the two cases indicates both spatial and non-spatial factors influence access to private health care facilities. Physical factors of accessibility include mode of transport (roads and its conditions) and means of transport (public transport, private transport and walking), and distance to be travelled to reach health care facilities. These findings are in line with Amer (2007), Al-Taiar et al (2010) and Litman (2011). Non-spatial factors includes persons' experience and trust in health care services offered and medical staff involved; opening hours of health care facilities, availability of medicines, customer care, waiting time for treatment, affordability and cultural beliefs (Figure 7.4).

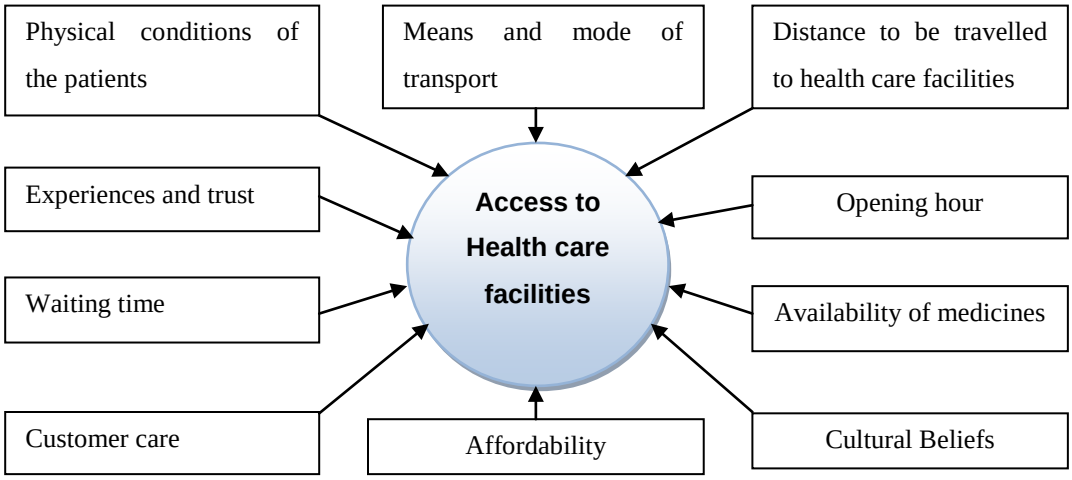

Figure 7.4: Factors influencing access to health care

7.2.5 Mechanism to ensure special group access to health care services

It should be made clear that private health care providers are not concerned for free access to health care by the special group. However, to understand how such group access public health care services was crucial in the discussion of equity issue.

In relation to mechanism to enable special groups to access health care, discussions were arranged with local leaders including Sub-ward chairpersons in order to avail the procedures involved. It was revealed that in order for persons, especially elders and disabled, to get free health care services they must get an introductory letter from the "Ten-Cell Unit" leader in the area where they live. It is worth noting that each ten Ten-Cell-Unit has a specific number known by the Sub-Ward Government. The letters are meant to introduce these persons to the Sub-Ward government in the area. Upon receiving the letter, the Sub-Ward Chairperson writes a letter to the Ward Executive Officer (WEO) confirming that the person is a resident in the sub-ward specifying the number of the Ten-Cell-Unit and of the house where he/she lives. After receiving the letter from the Sub-Ward Office which also has a photo of the person in question, the WEO writes a letter to the respective government health care facilities to exempt that person from paying for medical treatment.

However, it was realised that few persons are aware of the procedures. Discussions with elderly indicated that they don't see the meaning of such bureaucratic procedures. One of the elderly argued that:

> "I am elders don't they see me? "Even though, when I go to hospital medical doctor ask me, what is your age? They know it; it is within the eligible cohort, yet they charge me, no free service, we elderly are forgotten".

Surprisingly, even those who have followed the procedures often could not get free health care services. In most cases it ends up with doctors' prescriptions; there are no medicines in the public facilities and often patient has to go to purchase respective drugs elsewhere.

7.2.6 Equity

As this special group are not entitled to get free access to health care in private health facilities, meeting equity as a central goal in health policy is still a key challenge. This is to say that equity is not directly connected to the location of private health care facilities but also their connection with the existing health care organisation. In either dimension, equity is difficult to realise given

the existing distribution of health care facilities which are largely dominated by private sector. This situation prompts concerns of inhabitants who live in areas of limited public facilities like in Charambe; where there is no mechanism in place to enable such group benefits from existing private health care facilities.

Many persons continue to prefer to get health care services from government health care facilities, (70% in Charambe and 90% in Chamazi). These results are in line with the Health Sector Development Plans which indicated that in 2007, the use of private health services dropped by 30% in 2000/01, while the use of public providers increased by 19% (URT, 2009). The critical challenge is whether government should locate health care facilities parallel with private sectors in order to increase the freedom of choice or forge partnership with private sector?

7.2.7 Incentives

Incentives which, theoretically, have been considered as critical aspect in active privatisation are not extended to private for profit health care providers. This phenomenon was common to both Charambe and Chamazi. On the other hand private not for profit health care providers consider incentives they receive from the government to be inadequate to improve health care service delivery. To them adequate incentive include provision of diagnostic equipments which are very expensive for individual to purchase, long term loans, land/buildings for health facilities and easy access to medicines in government medical store department. It also involves trains medical staff and employs them to work in private health care facilities. On the other hand, private for profit health care provider do not get any incentive despite their dominance in the market in urban area. This is one of the reasons why they are opportunistically locating their health care facilities in the highly accessible point to help maximize customer contacts hence profits.

Conception of incentives: health care provider's view

The meaning of incentives has been conceived differently by different actors involved in health care service delivery. The government, due to its meagre resources, downsize incentives to things like seminars, staff sharing, and the use of private health facilities in delivering medicines for MCH, TB and ARVs and the facilities that are provided therewith. On the other hand, health care service providers/owners perceive incentives in different ways. To them incentives includes

tax exemptions, provision of diagnostic equipment like ultra-sound, reduced price for medicines (subsidy), facilitate access to soft loans, rise charges for drugs under health insurance and facilitate access to land or building for health care service delivery.

The use of private health care facilities in delivering health care services related to MCH, TB and ARVs and the provision of associated equipment are seen as incentive in one hand and a disincentive in the other hand. It is incentive in that as patients come for aforementioned services, they may also need other health care services that can be charged. This however appears a probability as they may also come and leave without seeking other health care services as anticipated. It is disincentive in that such services are provided free of charge; to be able to accommodate such services, health care facility should have at least an additional of two rooms well as additional staff. Costs for additional resources as well as electricity and water are to be met by private health care providers. Although government provide resources like refrigerators and respective medicines, they must be used for intended services.

Therefore, what government perceives as incentives is not seen as incentives by private health care providers. When the question of incentives was discussed with private health care providers the first responses were *"nothing, no incentives at all"* these were the first responses from both private for profit and private not for profit at Charambe. Such responses suggest that they do not appreciate the incentives they receive due to their limited impact on improvement of health care services. They are also not involved in identifying appropriate incentives that can sustain health care services in the long run.

7.2.8 Motivation

Underlining factors that motivate private investment include professionalism, rapid increase of health care demand and income generation. Enabling legal framework including health policy motivates private investment in health care services. Rapid population increases has created high demands for health care that government cannot meet; this situation has opened new opportunities for private investment in health care in order to meet the growing health care demand.

Most of the owners of private health care facilities are either retired medical doctors or employed medical doctors in government health care facilities, who work on part time bases, especially after working hour or during the weekend. For the retired medical doctors, establishing their own health care facilities enable them to continue practice and earn income for their household. The critical concern with respect to motivation is the sustainability of health care services after the death of the owners. It may happen that only the owner is a medical doctor and the rest member of the households are not medical practitioners and they might also not interested with the business of providing health care services. Therefore, the death of the owners marks the end of the business. This is one of the main challenges for up-scaling private for profit health care facilities which are owned by the households.

7.2.9 Hierarchy

While the health care service delivery based on the administrative units is rural oriented and has failed to cope with urbanisation, the emerging public-private model has not been able to realise spatial hierarchy of health care service delivery in rapidly urbanising context. Public sector is supposed to regulate the market and address the spatial limitations of private sector in health care especially in the location and hierarchical distribution of health care facilities. However, unprecedented population growth subsequently informal urban expansion and meagre resources to rectify the situation have been critical setbacks. The current criteria for location of health care facilities which includes threshold population and administrative status are not applicable in the context of rapid urbanisation.

One of the challenges in relation to location of health care facilities is that, while government intend to provide health care facilities based on the administrative units, private health care providers do not follow the same approach. The private health care facilities are often located strategically to maximize both profit and accessibility hence they concentrate in places where government has provided basic infrastructure. On the other hand the government, apart from reducing its role in directly providing health care services, it assumes that private health care providers can replace its original role (service provider). This observation is in line with Munishi *et al,* (1995) which indicated that about 2 years after liberalisation of private health care providers in 1991, about 111 new private health care facilities were established in which 70 were private for profit and 41 were private not for profit. The trends continued rapidly to 357 in 2010

of which 251 were private for profit and 106 were private not for profit *(Ibid).* In relation to this rapid increase of private health care facilities, Amer (2007) argued that:

> "Between 1995 and 2000 the number of government health facilities has not changed, the new ones were largely constructed in the rural areas".

The implication of this observation is the over-utilisation of available public facilities and infrastructures, hence poor health care service delivery and increasing inequity in health care.

7.3 Theoretical Reflections

The neo-liberal ideology which advocates on reducing the State's role and maximizing that of private sector in service delivery seems to fall short when it comes to health care service delivery in rapid urbanizing cities. The rhetoric that Government should not directly provide services assumes that the private sector can be rational under market mechanism and create affluence for all. Contrary, evidence from empirical findings from the two cases namely Chamazi and Chamazi, present a different picture. Although, quantitatively the number of private health care facilities have increased tremendously in urban areas like Charambe, that of public sector have almost remained the same; majority of people still rely on government health care facilities. Besides the aforementioned reasons for their preferences, previous development policies such as Arusha Declaration, which promoted free services for all seems to have an influence in the current public-private model of health care service delivery. It seems that the majority still believe that health care services should be provided free of charge.

On the other hand spatial disparities in distribution of private health care facilities are prominent. The central preliminary issue in this theoretical discourse emerges when the government is weak in terms of resources necessary to facilitate the actions of the private sectors. As a result private health care providers concentrate in the area where government has provided physical infrastructure like roads and water. According to Kyessi (2002:138), the government has failed to continue providing adequate infrastructure and linking actors involved in the provision of urban infrastructure services in both formal and informal settlements. This situation also suggests that the location of private health care facilities will be limited to better off settlements.

Incentives and subsidies which are pivotal for active privatisation are not adequately provided to the private health care providers. This situation has led to growing inequity in access to health care in areas where public health care facilities are not available or are limited in supply. This is in line with the Interest Based Theory which postulates that complement or partnership will only be realised when each of the actors find its interests met (Yeboah, 2003), while Lowdnes and Skelcher (1998) will call it mutual benefits as essential ingredient in collaboration. Whereas equity is the central goal of the government in health care service delivery, profits maximization for sustenance of private health care providers in the market are their driving motivation. Inadequate incentives and subsidies to bridge equity and profit are one of the critical issue features in both urban and peri-urban cases.

Central Place Theory which illuminates on hierarchical settlement development as well as service distribution is adversely influenced by rapid urbanisation and informal urban expansion which largely assume a homogeneous settlement growth (no hierarchy). While peri-urban Wards have relatively lower population size as compared to urban Wards, most of them are urbanising more rapidly than the urban Wards. Therefore, the location of health care facilities in peri-urban areas cannot be determined by the threshold population or its administrative hierarchy.

Although the location of private health care facilities takes advantages of public transport routes by clustering along the roads and commercial centres to maximize accessibility is in line with Sustainable Urban Form Theory, the urban sprawl which takes place even in less accessible areas seems to counter-attack the former. This theory in its critique against modernism planning as being insensitive in responding to rapidly growing cities, environment, inclusion and poverty, is not promising in practice in the context of rapid urbanisation where informal settlements occur sporadically and ahead of service provision.

From the theoretical discussions which are based on the empirical findings as related to Dar es Salaam as a whole, the following is the emerging public-private health care delivering model that prompts further analysis.

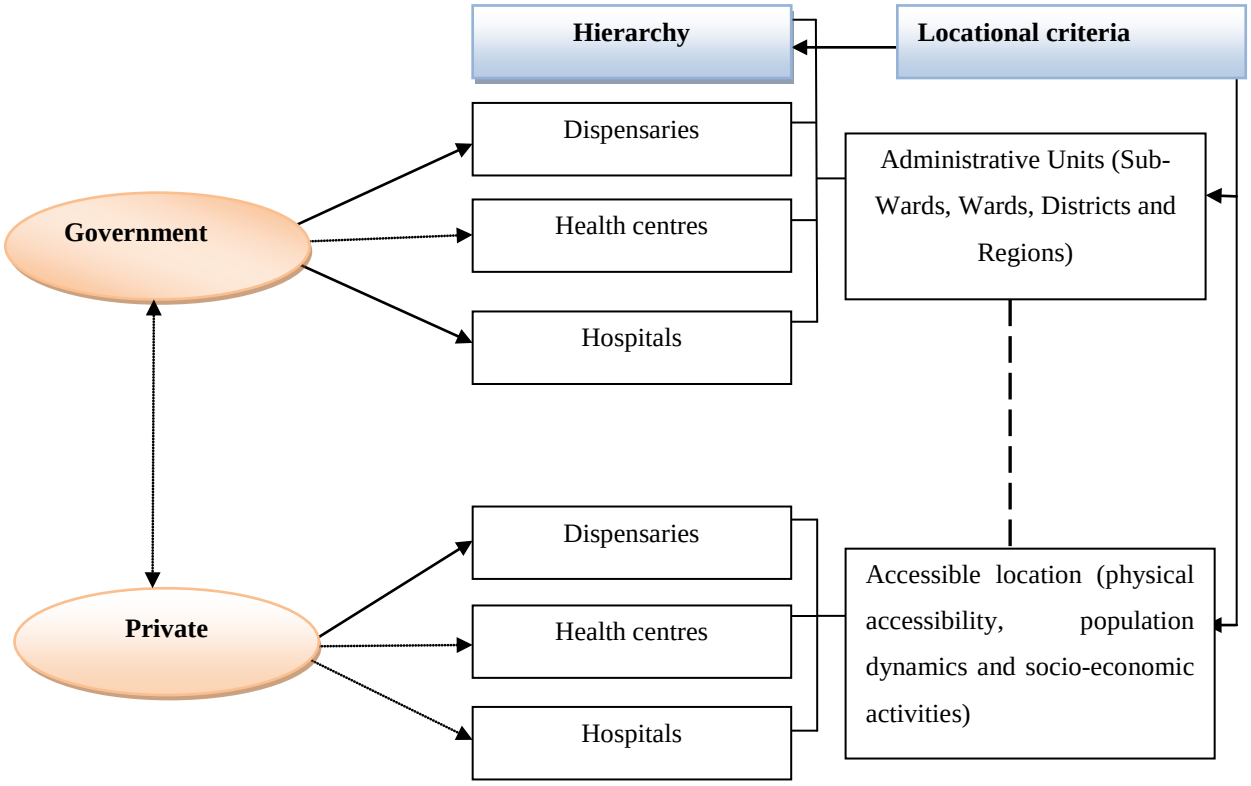

Figure 7.5: Emerging public-private model ⟷ *Weak ,* - - - - *gap*

7.4 Policy Implications

Although, administratively the term Ward is used in urban, peri-urban and rural areas in Tanzania, their variation in terms of demography, administrative set-up, spatial housing development and related infrastructure such as roads, water and electricity needs to be emphasised. For instance, National Health Policy (2007) requires that each Ward should have a health centre, but there is no attention given to the variation that exists among the administrative Wards. The cases of Charambe and Chamazi have shown that there is significance variation in population dynamics, number of administrative sub-wards and extent of settlement development. This variation demands for different health care requirements. The location of administrative Wards also matters, for instance, health care facilities that are located in Chamazi serve the Chamazi community, adjacent urban areas and the surrounding villages.

Physical accessibility, which is a principal factor for private investment in health care, has largely determined the location and distribution of private health care facilities. Comparatively,

sub-wards that are highly accessible attract private health care providers while sub-wards in peri-urban areas, despite their population size and rapid urbanisation, benefit less from private investment. Because of the fact that informal urban expansion is the dominant feature in Dar es Salaam and other cities and towns, larger parts of the population stay without health care facilities largely due to their poor accessibility. This situation has increased and continues to increase the disparities in spatial distribution of health care facilities in general and private health care facilities in particular. Therefore, physical accessibility coupled with other basic urban services like water and electricity are key factors to consider in location and distribution of health care services.

Incentives/motivations and equity are interconnected variables hence privatization without incentives cannot address equity in access to health care facilities. Still the government plays a central role in health care service delivery as reflected from the two cases. As the nature of health care services falls under public services, involvement of the private sector without adequate motivations reduces contribution of that sector in improving access to health care services. As a result existing public health care facilities continue to be over-utilised, inefficient and deliver low quality health care services.

The peri-urban area as a transition zone that is rapidly urbanising requires a hierarchical location of health care facilities in order to cater for both urban and rural areas. This is due to the fact that rapid population growth which is associated with horizontal spatial expansion extends its influences to the surrounding villages. Higher level health care facilities like health centres and hospitals if provided in Peri-urban settlements will act as a bridge to connect urban and rural settlements. Limited capacity of individual health care providers to invest in higher order health care facilities (Health Centres and Hospital) suggests that the government should take charge in improving the hierarchical order of health care facilities as the city grows toward peri-urban areas.

Equity is also a policy issue as it provides safety net for disadvantaged groups. In the public-private health care service delivery model, it is still not clear on how inequity in access to health care can be addressed. This study has found that there is no mechanism that enables *"special groups"* (women, children under five, disabled and elderly) to access and benefit from services offered by the private health care facilities in areas of limited public facilities. The strategies to

enable special groups to access health care services are directed towards the government health care facilities.

7.5 Concluding Remarks

This study, on comparing the findings from the two cases, has found that the term Ward is misleading and should not be used as a basis for the location of health care facilities in urban areas. This is due to the fact that there is a remarkable variation in terms of demographic characteristics, administrative composition, extent of settlement development and densification. There is also variation in terms of availability of urban services such as roads, water supply and electricity. This variation influences location of private health care facilities and overall spatial distribution patterns of health care facilities. The next Chapter provide general Conclusions, Recommendations and the areas for further studies.

CHAPTER EIGHT

CONCLUSSIONS, RECOMMENDATIONS AND AREAS FOR FUTHER STUDIES

This Chapter presents general conclusions and recommendations of this study. Conclusions and recommendations made are along the line of research variables in more abstract forms. They touch both practical issues and theoretical framework including policy issues based on the empirical findings. The area for further research is also highlighted at the end this Chapter.

8.1 Conclusions

The high demand for health care services which commenced during the period between 1988 and 2002; was due to population increase in Charambe, Chamazi and Dar es Salaam at large. This was the period of the structural adjustment programme to accommodate new demands for political and economic liberalisation. Many private institutions emerged which provided new possibilities and opportunities for income generations and employment. Many persons in the rural areas migrated to urban areas to seek for new opportunities for income generating activities. The government economic and political orientation shifted from centralisation to decentralisation, single-party to multiparty systems to cope-up with the new institutional arrangements which needed to accommodate the private sector and civil organisations as key partners in planning and implementation of health care projects.

Following rapid population increases between 1988 and 2010 and liberalisation of health care service delivery through privatization, the number of private health care facilities increased rapidly in Dar es Salaam as reflected at Charambe Ward. In Charambe Ward, private health care facilities account for 90% of all health care facilities located in the area, including those private health care facilities recently closed by the government. By 2010, the number of private health care facilities, quantitatively, reached 73% of all health care facilities in Dar es Salaam.

However, it should be noted that this tremendous increase of private health care facilities in quantitative terms does not reflect the achievement in addressing health care needs of the society.

Findings from Charambe and Chamazi in relation to access to health care by the community indicate that despite the presence of more private health care facilities than the government health care facilities, majority of the population still seek health care in government health care facilities. This is the critical challenge that should be taken into account in order to make private health care more accessible in areas where there is a limited number of government health care facilities.

The disregard of spatial dimensions in the public-private model of health care service delivery is detrimental to achieve equity in its three facets namely geographical, vertical and horizontal equity. Under this model emphasis has strongly be given to provision of health care facilities based on administrative units such as village/sub-wards, Wards, District and Region. There is no comprehensive system for providing health care facilities in urban areas. Provision of health care facilities based on hierarchical administrative units does not tie up with the hierarchical set-up of urban settlements in a rapid urbanising context. While the term village is considered synonymous to sub-ward, and the term Ward is applied to both urban and rural settings, their population dynamics and the nature of their spatial growth are not comprehensively distinguished. Thus, location and distribution of health care facilities based on Sub-wards/Villages and Wards is misleading and irrelevant in urban settings. The empirical evidence to this claim is the observed patterns of distribution of private health care facilities in Charambe and Chamazi which transgress Ward administrative boundaries and takes benefits of physical accessibility leaving larger parts of the community away from the health facilities.

Despite the high rate of population growth in peri-urban areas, there is less distribution of community facilities and the area has been less attractive to private investors in health care service delivery due to its poor accessibility. Space/land acquisition for community facilities are relatively cheaper in peri-urban as compared to urban areas but less attention has been given to this rapidly urbanizing zone. Despite these potentials there are no adequate health care facilities to meet the rapidly growing demand for health care. As the case of Chamazi suggests, peri-urban is a strategic zone that bridges urban and rural areas. This is the strategic area that requires strategic location of services due to its nature of growth and its influences to both urban and rural areas.

In the context of informal urban expansion, the balance between demand and supply is not practically achievable as large populations live in inaccessible areas which cannot attract private health care providers and other urban services. On the other hand capacity of the government to provide services in underserved areas are limited hence both private and public sector face the same challenges. Providing health care facilities in a hierarchical order based on threshold population and range as dictated by central place theory appears not to be practical. The first reason is that there is no fixed population in a given geographical area under informalities in land development as the population is constantly changing due to densification (Case of Charambe) and rapid immigration (both Charambe and Chamazi). There is, on the other hand, limited capacity of private health care providers to invest in higher order health care facilities like health centre and hospitals which contradict hierarchy concept in a liberalised market. Households' affordability to sustain higher order health care facilities is another challenge.

Location of private health care facilities in commercial or residential areas should not be a problem as mixed uses are encouraged for sustainable city form. The problem emerges when there is no clear separation of functions. A mixture incompatible uses without clear separation brings conflicts such as blocked entrances to health care facilities by trading activities which impair movement of patients.

Generally, private health care facilities are opportunistically located to maximize accessibility and profit; the situation that challenges the geographical equity in distribution of health care facilities. The Government seems to be in the locational dilemma; that is forming public-private partnership or carry out parallel location and distribution of health care facilities along-side the private sector.

In terms of hierarchy, private health care providers are very strong in lower order of health care facilities especially dispensaries. This is largely due to capital limitations as most private health care providers are individual persons, non-governmental or voluntary organisations. This situation suggests that governments should change orientation of being only facilitator and play both facilitative and provision roles in the areas where the private sector is weak.

8.2 Recommendations

Based on the findings from the two cases, this study provides the following recommendations which are in line with the study variables but also touch policy issues:

8.2.1 Mapping of health care facilities to identify underserved areas

In order to improve location of health care facilities, the government should map existing spatial distribution of health care facilities in Dar es Salaam city so as to identify areas which lack health care facilities. This mapping will provide an overall picture of the distribution of health care facilities thus suggesting the possibilities for private health care providers to locate their health care facilities. The government will also be in a better position to intervene in order to reduce spatial disparities in distribution of health care facilities.

8.2.2 Hierarchical location of health care facilities in peri-urban areas

Hierarchy of health care facilities in peri-urban areas should be improved by locating higher order health care facilities such as health centres and hospitals in order to meet the growing demand of health care services in areas surrounding rural and urban communities. The location of health care facilities should reflect upon the dynamics of peri-urban population which differs from both urban and rural demographic characteristics. There is also a need to locate public central health care facilities (health centres and hospitals) even in areas where private health care facilities are concentrated. This is due to the fact that private health care service providers cannot meet the health care needs of different social-economic groups in the community including the needs for the elderly, children, pregnant women, the poor and disabled who need special attention that goes beyond market principles. Alternatively, the Government should subsidize private health care providers; provide medical staff, drug storage facilities and diagnostic equipment in order to provide health care services for the disadvantaged group hence addressing health equity.

8.2.3 Improving physical infrastructures to attract private investments in health care

Although it has been seen that physical accessibility is a key determinant of location of private health care facilities, the overall observation is that infrastructure such as roads, electricity and water are central to attract health care providers in urban areas. Therefore, to create attractive

environments for private investment government should focus on physical infrastructure such as roads, electricity and water supply[64]. Adequate investment in infrastructure coupled with incentives will activate participation of the private sector in health care service delivery even in peri-urban areas.

8.2.4 Equity in health care needs strong government interventions in the public-private model

It has been argued that equity cannot be improved with more private sector involvement in health care service delivery as shown by the two cases until their situations are improved. Subsidies, long term loans and access to medical store department are necessary to realise this policy objectives in practice. The ggovernment should remain central in the provision of health care services in underserved areas as well as to the disadvantaged group in both urban and peri-urban areas.

8.2.5 Mobile clinics to reach disabled, elderly, pregnant mothers and children

It is important to note that the aging population is increasing with overall increase in population in cities. Some elderly and disabled persons can no longer walk to health care facilities due to their physical conditions; mobile clinics seem to provide alternative to reach them, especially in areas where public transport is inadequate and where they cannot be assisted to reach health care facilities. For those who are still too poor to afford even the cost sharing, the respective authorities should register them in the respective Sub-wards and Wards so that special cards are given for free access to health care. The current system of introduction letters which follows bureaucratic procedures across the local administrative units appears to be too temporary and irrelevant given the health risks that are not predictable.

8.2.6 Improve the quality of location of private health care facilities

Mixed land uses without physical separation have resulted into conflicts of space uses and incompatible activities. Separation of functions between private health care services and other urban functions will improve location of private health care facilities, physical accessibility and convenience in health care service delivery in urban centres where mixed land uses are common especially in commercial centres. Separation could be simply fencing to separate health care

[64]This area will be further investigated in the next PhD study

facilities from trading and commercial activities to reduce interference between health care services and trading activities such as blocked facilities' entrance through overcrowding.

8.2.7 Partnership in health care service delivery in areas of limited public facilities

Partnership is one of the options in privatisation of health care services. The critical challenges have been in which areas partnership can be effective given the capacity of private health care providers and government. Key areas which have been identified include spaces or lands where health care facilities can be established, diagnostic and storage equipment, experts and wages for workers[65]. These seem to be important options in peri-urban and less accessible areas. This will improve capacity of private sector and elevate their concentrations from lower order health care facilities to higher order such as hospitals. Its effects are not only on the reduction of congestion of patients in municipal and referral hospitals in the inner-city, but also provide health care services for inhabitants in urban, peri-urban and the surrounding rural settlements. It will also likely build trust in private health care providers in the communities. Provision of higher order health care facilities in peri-urban areas will address the limitations of individual private health care providers who are largely concentrated in urban areas investing largely in lower order health care facilities such as dispensaries.

8.2.8 Build community awareness to reduce barrier to access health care facilities

Social-cultural factor affect access to health care; this should be addressed by rising community awareness on importance of seeking advisory and health care services from both government and private health facilities. Mass media has proven to be an effective way of communication as shown by the cases of Charambe and Chamazi. The same can be used to disseminate health care information to raise community awareness on health issues.

8.2.9 Strengthen regulations and inspections

There should be a regular inspection and check-up of cost for drugs and consultation, and quality of services offered by private health care providers in order to address the problems that make people lose trust in private health care such as over-prescriptions, poor storage of drugs and medical devices and unqualified staff. These are some of the factors that reduce the proportion of

[65] This needs further investigation

persons seeking private health care services which need to be addressed in order to reduce congestion of patients in government health care facilities.

8.2.10 Making appointments on-line to reduce waiting time in health care facilities

There is also a need for patients to save time by making appointments with medical doctors through mobile phones instead of waiting outside the health care facilities for almost a whole day. Nurses should receive calls from patients and make arrangements of time when the doctor is available. This partly will address the waiting time issue which was seen as a hindrance for improved access to health care.

8.3 Areas for further research

This study proposes a need to identify and examine government interventions and their spatial implications on urban development patterns and service delivery in general and location distribution of health care facilities in particular. Empirical findings from the two case study areas suggest the need to define spatial focus and areas of concentration for government and private sector in order to achieve equity in public service delivery in urban areas. The spatial disparities in distribution of health care facilities in general need to be examined in the view to explore the roles of the state and the private sector in addressing spatial equity in health care.

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APPENDICES

Appendix 1: Introduction letter from Ardhi University

ARDHI UNIVERSITY

Telephone: (255-022) - 2771272,
2775004, 2772291/2
Fax: (255-022) - 2775391, 2775479
Telegrams: ARDHICHUO

P. O. Box 35176
Dar es Salaam
e-mail: aru@aru.ac.tz
website: http://www.aru.ac.tz

Ref. No.: UCLAS/A.139/

11th August, 2010

To whom it may concern

RE: INTRODUCTION OF MR. JOEL MSAMI

This is to introduce Mr. Joel Msami who is an Assistant Lecturer at Ardhi University in the School of Urban and Regional Planning. He is required to carry out a research on "Decentralized Health Facilities in Peri-Urban areas, Dar es Salaam focusing on Private Health care facilities" as part of his PhD programme.

This letter is directed to institutional leaders, community leaders and administrative staff in the organizations. We request your support for his research.

On behalf of the Ardhi University we wish to express in advance our gratitude for your cooperation.

Yours,

Dr. Robert B. Kiunsi
For: Deputy Vice Chancellor Academic Affairs

For Deputy Vice Chancellor
Academic Affairs
Ardhi University
P. O. Box 35176
Dar es Salaam

Appendix 2: Introduction letter from Dar es Salaam Regional Administration

JAMHURI YA MUUNGANO WA TANZANIA
Ofisi ya Waziri Mkuu
TAWALA ZA MIKOA NA SERIKALI ZA MITAA

MKOA WA DAR ES SALAAM
Anwani ya Simu

Simu: 2203156/2203158 •
Unapojibu Tafadhali taja:

Kumb Na: FA 282/293/01A

OFISI YA MKUU WA MKOA
S.L.P 5429,
DAR ES SALAAM

24 Agosti, 2010

Mkurugenzi,
Halmashauri ya Manispaa Ilala,
DAR ES SALAAM.

Mkurugenzi,
Halmashauri ya Manispaa Kinondoni,
DAR ES SALAAM.

Mkurugenzi,
Halmashauri ya Manispaa Temeke,
DAR ES SALAAM

YAH: KUMTAMBULISHA MR. JOEL MSAMI

Tafadhali rejea somo tajwa hapo juu.

Namleta mtajwa napo juu kwenye Halmashauri ya Manispaa yako ili kufanya utafiti kuhusu kudumisha Afya katika maeneo ya mjini hasa katika vituo vya watu binafsi.

Mpokee na kumsaidia ili aweze kufanikiwa katika utafiti wake.

B. M. Makali
Kny. KATIBU TAWALA WA MKOA
DAR ES SALAAM

Nakala kwa: Katibu Tawala wa Mkoa,
DAR ES SALAAM – Aoine katika jalada

Appendix 3: Introduction letter from Temeke Municipal Council to WEO Chamazi

TEMEKE MUNICIPAL COUNCIL

ALL COMMUNICATIONS TO BE ADDRESSED TO MUNICIPAL DIRECTOR

P.O.Box. 45232
Tel: 2850142

TEMEKE MUNICIPAL MEDICAL OFFICE OF HEALTH
DAR ES SALAAM
TANZANIA.

Date 09/03/2011

The Ward Executive Officer
Chamazi – Temeke District

J.D.

REF; PERMISSION TO CONDUCT HEALTH RESEARCH ACTIVITIES IN TEMEKE MUNICIPALITY.

Please refer to the above heading.
Permission has been granted to Mr. /Mrs/Ms/Prof. /Dr. Joel Msami
From (Institution) Ardhi University ..... Address S.L.P. 35176, DSM .....
Tel. No. 0744119315 .... to collect data for research work at your institution

The research title is
Privatisation of health services in rapidly urbanizing cities: The case of peri-urban areas of Dar es Salaam

S/he has submitted a proposal for the mentioned study to the MMOH Office as a pre - condition prior to authorisation.

The researcher has been instructed and agreed to submit the research progress reports and final results to the MMOH prior to any publications

Data collection will start from 10/03/2011 to 30/05/2011
Sample size 200 households in Kiwalani ward - Ilala Municipal

This research work is part of academic fulfilment for Certificate/Diploma/ Advanced Diploma/Degree/Master/PhD /its part of the ongoing research in your Institution.

I am kindly requesting you to give him/her the necessary assistance so as to accomplish this task timely.

Yours Sincerely

Dr. M. Mashombo
For; Temeke Municipal Medical Officer of Health

for: MUNICIPAL MEDICAL OFFICER OF HEALTH
TEMEKE

Copy 1. .....
2. .....

Appendix 4: Introduction letter from Temeke Municipal Council to WEO Charambe

Imepokelewa 16/03/2011

TEMEKE MUNICIPAL COUNCIL

ALL COMMUNICATIONS TO BE ADDRESSED TO MUNICIPAL DIRECTOR

P.O.Box. 45232
Tel: 2850142

TEMEKE MUNICIPAL MEDICAL OFFICE OF HEALTH
DAR ES SALAAM
TANZANIA.

Date 09.03.2011

The Ward Executive Officer
Charambe
Temeke District

REF; PERMISSION TO CONDUCT HEALTH RESEARCH ACTIVITIES IN TEMEKE MUNICIPALITY.

Please refer to the above heading.
Permission has been granted to Mr. /~~Mrs/Ms/Prof. /Dr.~~ Joel Msangi
From (Institution) Ardhi University Address 35176, DSM
Tel. No. 0744197395 to collect data for research work at your institution.

The research title is;
Privatisation of Health Services in rapidly urbanizing Cities; The case of Peri-Urban areas of Dar es Salaam

S/he has submitted a proposal for the mentioned study to the MMOH Office as a pre - condition prior to authorisation.

The researcher has been instructed and agreed to submit the research progress reports and final results to the MMOH prior to any publications.

Data collection will start from 10/03/2011 to 30/08/2011
Sample size 200 households in Charambe Ward

This research work is part of academic fulfilment for Certificate/Diploma/Advanced Diploma/Degree/Master/PhD /its part of the ongoing research in your Institution.

I am kindly requesting you to give him/her the necessary assistance so as to accomplish this task timely.

Yours Sincerely

Dr. M. Mashombo
For; Temeke Municipal Medical Officer of Health

Copy 1. .....
2. .....

MEO / Wenyeviti
Tafadhali mpeni
ushirikiano
16/3/11
AFISA MTENDAJI KATA
CHARAMBE

Appendix 4: Form for free access to health care by elderly

HALMASHAURI YA MANISPAA TEMEKE

S.L.P. 46343
FAX: +255-22 285064
SIMU: 0786 733400

Kumb: Na: TMK/CHR/KLG

OFISI YA SERIKALI YA MTAA,
MTAA WA KILUNGULE
KATA YA CHARAMBE
TEMEKE

TAREHE: .....

_____
_____
_____
_____

YAH: UTHIBITISHO WA MKAZI.

Husika na somo lililopo hapo juu.

Nathibitisha kwamba ndugu .....

Mwenye picha hapo juu ni mkazi wa Mtaa huu wa Kilungule Kata ya Charambe Anaishi nyumba Na.TMK/CHR/KLG/.....

Mjumbe wake wa shina ni ndugu .....

Shina Na.....

Mtajwa anaomba apatiwe msaada wa .....

_____
_____
_____

Napendekeza asaidiwe ombi lake.

Ahsante

M/KITI SERIKALI YA MTAA KILUNGULE
KATA YA CHARAMBE

APPENDIX 5: Household Questionnaire and interviews´ questions

PhD Research: <u>Private Health Care Facilities in Rapid Urbanizing Cities: Dar es Salaam Case</u>

Chalmers University of Technology (Sweden) in Collaboration with Ardhi University (Tanzania)

QUESTIONNAIRE FOR RESIDENTS IN CHARAMBE AND CHAMAZI ADMINISTRATIVE WARD,

DAR ES SALAAM

Questionnaire No. ……. **Interviewer name** ……

A. <u>Personal particulars and general information</u>

A1 Interviewee name	……	A2. Sex (M/F)	……
A3. Household status	(a) Household head (b) Other members of the household ***(tick)***	A4: Ward name	
A5. Street Name (Mtaa)	……	A6. House ownership ***(tick)***	(a)Land lord (b) Tenants
A7. Duration of stay in the area (Charambe)	……(should be at least one year)	A8. Education level ***(tick)***	(a).No education (b).Primary (c) Secondary (d) A-Level (e) Colleges (f) Adult Education (g) University
A9. Marital Status ***(tick)***	(a). single (b) married (c) widow (er)	A10. Household size	……..
A11. No. of Males	…….	A12. No. of Females	…….
Household members	**No. of males and ages**	**No. females and ages**	**Total**
Your children			
Dependants staying with you			

B. <u>Socio-economic aspects (an overview)</u>

B1. What is the main occupation of the household head? *(Please Tick)* ☐

(a).Employed in public sector (b) Employed in private sector (c) Self-employment (d) No employment

B2. Housing condition (a) permanent housing (b) temporary housing ……..... ☐

B3. Which of the following services is (are) connected to your house (a) Water (b) Electricity (c) Sewerage (d) pit latrine (e) water, electricity and pit latrine (f) electricity and pit latrine (g) no service (h) Others, specify ☐ ……

B4. If your house is not connected with water, where do you get it (check all that apply)? (a) communal kiosk (b) shallow well (c) deep well/pumping well (d) river (e) water vender (f) water truck (g) others, specify ……..

C. <u>Accessibility to health care services</u>

C1. Where do you get health care services when you or one of the household members is sick? ☐

(a). Government health facilities (b) private health facilities (c) mission health facilities (d) others, specify……

C2. How do you get there? (a) DalaDala (public transport) (b) private car (c) motor bike (d) Bajaj (e) walking (f) Others, specify ……

C3.How long does it take to reach the health care facilities you mentioned in C1 above?

(a) Less or about 10 minutes (b) about 20 minutes (d) about 30 minutes (e) one hour (f) more than one hour

C4. If both private and government health care facilities were available in this area and fees for medical services were reduced, which one would you prefer to go?(a) private (b) government (c) mission

C5. In question 7 above why do you prefer the health care facilities you have chosen?

……
……
……
……..

D. Building Conditions, Location and cost of services in private health facilities

Now that private health care providers are allowed to do business, what are your feelings on the following?

D1: Condition of the buildings ……..

D2. Location (site, space and accessibility)…….
……....

D3. Cleanness ……

D4. Cost of drugs…….

D5 Cost of consultation/seeing the doctor……

D6. Availability of drugs……..

D7. Customer care……

D8. Waiting time ……..

D9. Referral situation (in serious cases where higher order are needed e.g. from dispensary to hospital) …….
……
……

E. Equity issues

E1. Are you aware that "special group" which involves children under five, elders, disabled and pregnant women should get free health care services according to National Health Policy? YES/NO,

E2. If YES how did you know?
……..
……..

E3. Do you think such group in question E1 above gets free health care services from government health care facilities? YES/NO,

E4. If YES, how

E5. If NO, why.....
…….
……

E.6. Could you find any difference between private for profit and private not for profit (mission/faith based) in terms of cost involved in getting health care services?

……
……
……

E7. In general, what are the main problems of private health care facilities in this area?

……
……
……

E8. What do you think government should do to improve service delivery and foster universal access to primary health care services?

……
……
……
……*THANK YOU*……

OFFICIAL INTERVIEWS: MINISTRY OF HEALTH AND SOCIAL WELFARE
Introduction

The purpose of this questionnaire is to investigate location, hierarchy and distribution of private health care facilities in Dar es Salaam city in view to understand how they can be spatially guided to promote equity and enhance access to healthcare. Rapid urbanisation has largely contributed to proliferation of private health facilities in both planned and unplanned settlements. Location and distribution of such facilities are not guided and lack spatial hierarchical order. While most physically accessed and densely populated areas in urban settlement benefit from concentration of private health care facilities, peri-urban settlements are deprived from such services. Understanding of what motivates private sector to establish and locate their health care facilities is crucial in understanding how they can be spatially guided to improve equity and access to health care. On the other hand, hierarchy and distribution of private health care facilities present one of the key challenges toward improvement of health care service delivery in rapid growing cities like Dar es Salaam.

This questionnaire covers both urban and peri-urban areas. However, due to resource limitation, the focus is on the two administrative wards namely Charambe (Urban) and Chamazi (peri-urban) in Dar es Salaam city.

PARTICULARS OF THE RESPONDENT

Name of the Official interviewed: …….

Position:…….

Department/Section/Unit……

Contacts address and phone number: …….

E-mail. ……..

Date of Interview: …….

REGISTRATION AND LOCATION

1. What are the pre-request for private health care facilities registration? You may attach relevant documents)
   ……
   ……
2. Does spatial aspect (number of health facilities already established in the area) be considered during registration? YES or NO if YES, how?
3. Is community participation considered in the process of establishing and locating private health care facilities in the given settlement? If YES how?
   ……
   ……
4. Does the Ministry of Health and Social Welfare (MoHSW) collaborate with Ministry of Lands, Housing and Human Settlements (MLHHSD) or respective local authorities in deciding where to locate health care facilities? YES or NO, if YES how?
   .....
   .....
   .....

5. Through observation, many private health care facilities are located in poor building, crowded residential and commercial areas subsequently they lack adequate indoor and outdoor spaces. This situation influence the way health care services are delivered. What corrective measures do you have to rectify the situation?

……
……

6. What regulatory mechanism is used to regulate services offered by private health facilities (focus on dispensary, health centre and hospital services) and how does it used?

……
……
……

7. Is there any different in terms of registration requirements between PRIVATE NOT FOR PROFIT AND PRIVATE FOR PROFIT health care providers?

……
……

HIERARCHY

8. Hierarchy of health care facilities is crucial for efficiency and effective health care service delivery. In urban planning point of view hierarchy of health care facilities can be taken into account through planning units (neighbourhood, community and planning district) which are based on threshold population and range. Under rapid urbanization and informalities in land development where planning units cannot be applied due to limited resources, establishment of health care facilities in a hierarchical order based on threshold population and market range (catchments) is very limited and in fact does not exist. (a) At what extent do you think this situation has affected health care service delivery?

   ……
   ……

   (b) How does the MoHSW cope with the aforementioned situation?

   ……
   ……..
   ……..

9. (a) Do you think privatization of health care services has contributed to the problem in question 8? If YES why?

   ……
   ……

   (b In the same line do you think privatization of health care services could help in addressing the problem in question 8? If YES How?

10. How does the Ministry of Health and Social Welfare (MoHSW) integrate private health facilities into existing referral system?

……
……

11. How does the government ensure that private health facilities continue to survive and form part in existing health care system (noting that some of them die when the owners die)

……
……

ACCESSIBILITY

12. How does the Ministry consider accessibility in registering the private health care facilities?

……
……
……

13. Recently, many private health facilities especially dispensaries have been closed or stopped from offering health care services by the government. What were the main reasons and how do you identify them?

……
……
……

14. How does the MoHSW ensure that people/communities in the areas where the facilities have been stopped from business continue to get health care services in their areas?

……
……

15. Private sector has been important in service delivery especially where government cannot sufficiently provide services, what is your opinion on the poor distribution of private health care facilities in peri-urban areas?

……
……
……

16. What plan or strategy does the government (MoHSW) have to address the problem in Question 15 above?

……
……

17. Public transport facilitates access to health care facilities by the community especially for medium and low income earners. In Dar es Salaam city, traffic congestion and jams are common phenomenon especially toward the city centre. Despite the situation many health care facilities are located in the inner city where many patients are referred. What opinion do you have on this situation?

……
……
……

18. Does the MoHSW have any plan to rectify the situation in question 17 above like to decentralize health care facilities into urban periphery or any other specific strategy?

……
……

INCENTIVES

19. In privatization, incentives/motivations are crucial to promote equity and improve private health care services delivery in urban area. What incentives does the government provide to promote private health care providers?
    (a) Incentives for "Private not for Profit"

    ……
    ……
    ……

    (b) Incentives for "Private for Profit"

    ……
    ……
    ……

20. What other incentives do you think could improve service delivery by the private health care providers?

……
……
……

EQUITY

21. Equity is very important aspect to ensure that development benefits are fairly distributed to all social economic groups in the society. How does the Ministry of Health ensure that "special group" which fundamentally includes elders, disabled, children (under 5), pregnant women and those without any employment (urban poor) have free access to health care services?

……
……

22. Is there a clear mechanism that can enable them access health care for free? YES or NO, if YES which one? (eg. Special card, official letter, voucher, prepaid)

……
……
……..

23. Is such arrangement (question 21 and 22) also applicable to private health care facilities? If YES at what arrangement? And if NO how does such group access health care in areas where government health care facilities are not readily available?

……
……
……

24. In many incidents, private health care facilities do not attend emergency cases because of attached high risk/uncertainty of recovering cost of health care service. In your opinions, what should be done to improve to improve the situation?

……
……
……

25. Access to health care for free by the special group especially pregnant women has been critical and challenging issue. How does the government coincide equity and cost involved in health care service delivery especially for the special group?

……
……

DISTRIBUTION

26. In your opinion, what can you say about proliferation of many faith based (private not for profit) health care facilities in Temeke Municipality and fewer private for profit in the same Municipality? (This information is based on observation and health care facilities' inventory conducted in Dar es Salaam)

……
……
……

27. In your opinion, what can you say about proliferation of many "private for profit" health care facilities in Kinondoni Municipality and fewer " private not for profit" in the same Municipality?

(This information is based on observation and health care facilities' inventory conducted in Dar es Salaam)

……
……
……

HELATH CARE FACILITY MANAGEMENT

28. Some private health care facilities are located in areas where basic urban services such as water supply, electricity and roads are poorly provided or are totally missing like many informal settlements in peri-urban areas? How do you ensure that those facilities are properly managed, functioning and sustained (sustainability)?

……
……

29. What challenges do you face in managing private health care facilities and services offered and how do you cope with them?

……
……

AFFORDABILITY

30. Affordability is one of the key determinants of access to health care services. How does the MoHSW considers affordability in health care planning considering that many low income earners and the urban poor cannot benefit from private health care services especially private for profit health care providers?

……
……

THANK YOU

QUESTIONNAIRE FOR PRIVATE HEALTH CARE PROVIDERS (OWNERS)

Questionnaire No. …….

Personal particulars and general information

Interviewer name ……Sex (M/F)……
Education level (BSc/MSc)……Professional……
Phone number……

Interviewee name ……..Sex (M/F)…….

Ward Name……..
Street Name (where facility is located)…….
Date of Interview …..…./……./2011
Contacts address including phone/mobile number:
……
……
……

Types of health facilities (eg. dispensary, health centre or hospital) (TICK)……

(a) Private for Profit (b) Private not for Profit (faith based, mission, voluntary organization)

1. Why did you choose this area for locating your health care facility?
   ……
   ……
   ……
2. What factors motivated you to invest in health care service?
   ……
   ……
   ……
   ……
3. Did you get any incentive/motivation from the government? YES or NO, if YES what kind of incentives do you get or did you get from the government? If NO, go to question 5
   ……
   ……
   ……
   ……
   What opinion do you have on the incentives which are given by the government?
   ……
   ……
   ……
4. What kind of incentives/motivation would you prefer or suggest?
   ……
   ……
   What reason (s) do you have in the answer you provided in question 5 above?
   ……
   ……

……
……
How did you register your facility? (what are the basic requirements and how long does it take)
……
……
……
Do you see any difference (s) between "private for profit" and "private not for profit" (faith based/mission) health care facilities? YES or NO, If YES, please mention them briefly in terms of registration process and incentives they receive from government
……
……
……

5. Is your facility connected to the following services:
   -Water, ……..
   -Road (all weather) …….
   -Sanitation (Pit latrine/Water Closet – Septic tank, Sewerage)…….
   -Electricity …….
   -Solid waste disposal……
   -Packing space……..
   -Others……..
   ……
6. How did you raise money for establishing and running your facility (land, building, wages and utilities' cost)?
   ……
   ……
   ……
7. What challenges do you encounter in land/building acquisition for health care facilities?
   ……
   ……
   ……
   ……..
8. What are the copying strategy (refer to question 11)?
   ……
   ……
   ……
   ……
9. How do you treat emergence cases (accident occurrence) where patients cannot pay promptly?
   ……
   ……
   ……
   ……
10. Which bases (legal, contract) do you use in question 13 and how do you secure money or cost involved in Question 13 above?

11. How do you assist "special group" to access health care in your facility?

.....
.....
.....

12. What strategy do you have to make your facilities and service offered sustainable?

.....
.....
.....

What opportunities could you explore with respect of health services' improvement in private sector especially in rapid growing cities like Dar es Salaam?

……
……
……

13. What challenges do you encounter in managing your facility and staff?
    ……
    ……
    ……
    How do you cope with the challenges?
    ……
    ……
    ……
14. 1What do you think government should do to improve location and distribution of private health care facilities?

MINISTRY OF LANDS, HOUSING AND HUMAN SETTLEMENT DEVELOPMENT

Introduction

The purpose of this questionnaire is to investigate location, hierarchy and distribution of private health care facilities in Dar es Salaam city in view to understand how they can be spatially guided to promote equity and enhance access to healthcare. Rapid urbanisation has largely contributed to proliferation of private health facilities in both planned and unplanned settlements. Location and distribution of such facilities are not guided and lack spatial hierarchical order. While most physically accessed and densely populated areas in urban settlement benefit from concentration of private health care facilities, peri-urban settlements are deprived from such services. Understanding of what motivates private sector to establish and locate their health care facilities is crucial in understanding how they can be spatially guided to improve equity and access to health care. On the other hand, hierarchy and distribution of private health care facilities present one of the key challenges toward improvement of health care service delivery in rapid growing cities like Dar es Salaam.

This questionnaire covers both urban and peri-urban areas. However, due to resource limitation, the focus is on the two administrative wards namely Charambe (Urban) and Chamazi (peri-urban) in Dar es Salaam city.

Name of the Official interviewed: …….

Position:……-……

Department/Section/Unit……

Contacts address and phone number: ……

E-mail. ……..

Date of Interview: …….

1. Land uses in most areas in peri-urban zone are not guided (informal settlement). This situation affects provision of community facilities such as health and education. What strategy or plan do you have to rectify the situation?
   ……
   ……
   ……

2. At what extent do the plans/strategies in question 1 above be implemented?.....
.....
.....
.....
What are the key challenges that are encountered during the preparation and implementation of the strategies/plans in question 1?
……
……
……

3. How do you cope with the challenges?
……
……
……

4. Dar es Salaam city grows without hierarchy of service centres. All basic services of higher order are largely concentrated in the CBD including hospitals. Outside the inner city, settlement grows homogeneous without hierarchy of centres and most of the community facilities are missing. What is your opinion in this situation in relation with access to health facilities especially when you consider public transport problem from urban periphery to the city centre?
……
……
……

5. There are many private health care facilities in both planned and unplanned settlements. Do you collaborate with the Ministry of Health and Social Welfare in deciding where to locate private health care facilities during facility's registration? If YES, how? If NO skip it and go to question 7.

……
……
……

6. Urban Planners are mandated to regulate land uses in both urban and rural areas. How do you regulate location and distribution of private health care facilities in peri-urban areas?
……
……

7. Most private health facilities are concentrated along the main/trunk roads in urban (inner-city) and shy away from less accessible areas in peri-urban. How can this situation be rectified to improve access to health care?
……
……

8. What opportunities and potentials do you think are there to guide location and distribution of private health care facilities?
……
……

9. What motivation/incentives do you think could attract private health facilities in peri-urban area?
……

Mapping of health care facilities by GPS-Charambe and Chamazi-Data process-GIS

	Coordinates (GPS)		**Name of the health facilities**	**Descriptions**	**Functionality**	**Location**	**Ward**
	X	Y	Types	**Ownership**		**Mtaa**	**Kata**
1	523567	9229074	Hekima Dispensary	Private for Profit	Functioning	Magengeni	
2	523434	9228634	Mbande Dispensary	Government	Functioning	Magengeni	
3	525381	9232328		Private for Profit	Owners stopped business	Msufini	CHAMAZI
6	526972	9233544	Chegeye DispensaryPrivate	Private for Profit	Functioning	Majimatitu A	
7	527316	9233856	Majimatitu Laboratory Services	Private for Profit	Closed by government		
8	527408	9233776	Nurraifo Dispensary	Private for Profit	Closed by government	Majimatitu A	
9	528521	9234194	Taima Nyangawa Dispensary	Private for Profit	Closed by government	Nzasa	
10	528311	9233968	Bakwata Dispensary	Private not for Profit	Functioning (New)	Machinjioni	
11	528312	9234454	Samaria Mission Health Centre	Private not for Profit	Functioning	Nzasa B	
12	529077	9235776	Lugeye Dispensary	Private for Profit	Closed by government	Kurasini Mji Mpya	
13	528162	9235886	Afya Care Dispensary	Private for Profit	Functioning	Zomboko	
14	530212	9235816	GE Dispensary	Private for Profit	Functioning	Kibonde Maji A	
15	530299	9235258	AJ Dispensary	Private for Profit	Functioning	Mchikichini	
16	529778	9235554	Arafa Dispensary	Private for Profit	Functioning	Rangitatu	CHARAMBE
17	529079	9234496	Sama Dispensary	Private for Profit	Functioning	Rangitatu	
18	529181	9234610	Arafa Mapinduzi Dispensary	Private for Profit	Functioning	Rangitatu	
19	527616	9234842	ICC Charitable Dispensary	Private not for Profit	Functioning	Kilungule	
20	527311	9233650	Majimatitu Dispensary	Government	Functioning	Majimatitu A	
21	528778	9235656	Mico faith based	Private for Profit	Functioning		
22	527594	9236002	Arafa Shalom	Private for Profit	Functioning		
23	527312	9236264	Blessing Health Laboratory	Private for Profit	Functioning		
24	528657	9234206	Arafa Charambe	Private for Profit	Functioning		
25	527253	9234038	Mkizi Dispensary	Private for Profit	Closed by government	Majimatitu A	
26	529796	9236016	Rangitatu Health Centre (new)	Government	Functioning (New)	Rangitatu	
27	526809	9236642	Nurraifo Kilungule Dispensary	Private for Profit	Closed by government	Kilungule	