DETERMINANTS OF PRIMARY CAREGIVERS' HEALTH SEEKING BEHAVIOUR IN A TANZANIAN PERI-URBAN TOWN

by

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Abstract

This paper examines the principal determinants dictating the health-seeking behaviour of primary caregivers in a peri-urban town in Tanzania. I argue that the typical epidemiological model, utilized by most health intervention programs, and largely based on a person's identifying characteristics such as migration status, religion, education and tribal affiliation, are insufficient tools for predicting a primary caregiver's health seeking behaviour when children are afflicted with *homa (*fever), most often attributed to malaria. Rather, one's sphere of interaction, defined by one's shared values attributed with status as a primary caregiver, participation in the informal economy and interspersed residential patterns typical of the peri-urban environment are the principal factors determining caregivers' strategies.

Based on two months of fieldwork consisting of participant observation and semi-structured interviews in a town located on the outskirts of Dar es Salaam, Tanzania, this study uses Bourdieu's concepts of strategy and habitus (1977) to account for the health seeking behaviour of primary caregivers. Ultimately, based on this research, I conclude that first, social interaction surpasses static categories in defining primary caregivers' health seeking strategies; second, in order for health intervention programs to be successful, they must be based upon a community's specific dynamics; third, social networks forged through social interactions offer a formidable means of established communication via which health messages can be broadcast, and health intervention programs can be distributed.

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1.0 INTRODUCTION

In this study, I demonstrate that in a specific peri-urban[1] context in Tanzania, *Mmoja* town, individually targeted identification frameworks, often utilized by the classic epidemiological model[2] in designing and implementing health intervention programs, play a minimal role in shaping the health seeking behaviour of primary caregivers[3] of children afflicted with homa (fever).[4] Rather, social interactions were generated primarily by three factors: a person's status as a primary caregiver; a person's participation in the informal economy; and the town's interspersed spatial organization. These three elements were the dominant influences on caregiver's health seeking stategies.

This study was conducted in the summer of 2007. I spent two months in Tanzania conducting fieldwork and language training in a peri-urban town, *Mmoja*, located in Temeke District, on the outskirts of Dar es Salaam, the country's largest city. The focus of my original research was to examine the *difference* in health seeking behaviours amongst migrant and non-migrant caregivers when treating their children afflicted with *homa.* However, through participant observation at the local dispensary and in the town, as well as semi-structured

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[1] Peri-urban refers to areas that are neither rural nor urban, but are transitional. Peri-urban areas are defined as a location with a moderate density of people - from 250 to 1000 per square kilometer. They are usually within 5 – 15 kilometers from an area defined as urban (Hay et al. 2005:81). Within this space rural activities such as agriculture and more urban activities such as petty businesses coexist.

[2] Classic Epidemiological Model: The classic epidemiological model uses a triad (See Appendix A – Figure 1: Classic Epidemiological Triad) to explain the relationship among an agent or disease, the host – the infected person and the environment – the transmission setting (Nelson & Williams 2007:63). According to this model "[h]uman hosts differ in susceptibility to infections because of genetic, environmental, behavioural, and other characteristics" (64). Subsequently, many epidemiological studies and health intervention programs focus on evaluating the host's or potential host's characteristics that may define their behaviour or socio-economic status, such as culture, religion, ethnic background, etcetera making them at increased risk of contracting the disease.

[3] The primary caregiver is the person who is primarily responsible for the care of a child. It is often, but not necessarily the child's mother. When a child becomes ill, the primary caregiver is the person who often first recognizes that the child is ill and subsequently begins the process of intervention.

[4] Homa is the kiswahili word for fever. It can refer to an illness or a symptom of an illness (Winch 1996:1059).

interviews with primary caregivers and health care providers, it quickly became apparent that health seeking strategies, that is the actions, "tacit and prereflective level of awareness" (Swartz 1997:67) that occur in order to maximize the health of one's children, among both recent migrants and long term residents were very similar. Neither group perceived themselves or the other group to be more at risk of developing severe illness. Both groups' health seeking behaviour for a child afflicted with *homa* was identical. With these observations in mind, I turned my focus towards identifying those factors that played a pivotal role in defining caregivers' health seeking strategies.

Using Bourdieu's concept of practice (1977) as a theoretical starting point, in conjunction with the data I collected, this paper explores and accounts for the similarities in the health seeking behaviour of the migrant and non-migrant populations of *Mmoja* town regardless of their diverse cultural and geographical backgrounds. I argue that the classic epidemiological model that identifies a person within static categorical structures to explain their illness and treatment decisions is insufficient for understanding those factors that influence caregivers' daily strategies in *Mmoja* town. Rather, following Bourdieu, I argue that primary caregivers' strategizing is an interactive process largely influenced through their spheres of interaction, constantly generating and being generated by their lived realities.

This paper begins with a description of the field site, *Mmoja* town, briefly situating it within the larger historical context of Tanzania and thus laying the basic foundations of my argument. Following this, I provide an overview of my research methods and account for this study's theoretical approach. My data and observation section has two goals. First, it is my ambition to describe the commonalities in health seeking behaviour among the inhabitants of *Mmoja* town regardless of their distinct individual backgrounds. I therefore examine the

biological occurrences of disease, specifically *homa* among children under the age of 12 and the health seeking strategies of their primary caregivers. Second, it is my goal to account for these similarities through exploring primary caregivers' spheres of interaction as dictated by their shared underlying values as primary caregivers responsible for the health of their children, second, the nature of women's' participation in the informal economy creating mutual dependency, and third, the town's spatial organization. Through this exploration it is my hope that the reader gains a clear understanding of *Mmoja* town, its inhabitants, their predicaments and their positioning within the larger Tanzanian society. These observations and descriptions form the basis of the ensuing discussion.

In the discussion section, I elaborate on my observations. Following Bourdieu I discuss the importance of habitus over structure in interviewees' health seeking behaviour, demonstrating how their sphere of interaction surpasses larger structural factors in defining strategization. In my conclusion, I reiterate my main argument, proposing the importance of understanding and utilizing social bonds and communication in social networks rather than the classic, structural, individualistic epidemiological model in the planning and implementation stages of health intervention programs.

2.0 RESEARCH SETTING

My objective in this section is to situate *Mmoja* town's inhabitants and subsequently their health seeking strategies within its broader context. I begin by providing a brief geographical and historical overview of Tanzania. Next I provide a focused summary of specific aspects of *Mmoja* town, such as its economy, subsistence, population, infrastructure, transportation and health facilities. By beginning with a macro-level overview of Tanzania and then narrowing my focus to *Mmoja* town, it is my hope to provide the reader with a broad understanding of social, economic and historical forces that influence the lives of *Mmoja* town's inhabitants and specifically their health seeking behaviour.

2.1 Geographical Setting

Research for this study was conducted in the East African country of Tanzania. (*See Appendix A: Figure 2 – Geographic and Population Density Map of Tanzania and Surrounding Countries).* Surrounded by the Indian Ocean to the east, Kenya to the north, Uganda, Rwanda, Burundi, and Lake Victoria to the east, and Malawi, Zambia and Mozambique to the South, Tanzania is relatively politically stable. It is, however, a poor country often serving as a refuge for people fleeing conflicts in the surrounding region (Malkki 1995; Sommers 2001). Tanzania is geographically diverse, hosting Africa's largest peak, Mt. Kilimanjaro. It also has fertile land in the north, forested expanses in the west, swampy areas in the south, vast savannah and hot, humid, coastlines. *Mmoja* is a peri-urban town located in eastern Tanzania, within 30 kilometres of the coast and Tanzania's largest and most populated city – Dar es Salaam. *Mmoja's* location in a relatively political stable country and close to Dar es Salaam, as well as numerous historical factors makes it an attractive location for migrants.

2.2 Historical Context

An in-depth overview of Tanzania's history is beyond the scope of this paper[6]. However, it is important to introduce some historical factors that have played a role in shaping present day Tanzania, thus, contextualizing *Mmoja* town within Tanzania's broader history. Recognition of Tanzania's colonial and post-colonial history is essential to understanding the relative lack of distinction between the health seeking behaviour of migrants and non-migrants as observed in *Mmoja* town.

2.2a) Pre-colonial Tanzania:

According to historian John Iliffe, the area delineated by present day Tanzania is home to the most culturally and linguistically diverse peoples in all of Africa (Iliffe 1979:9). Although Kiswahili is the primary language of Tanzania today, traditionally this region was home to four distinct language families – Khoisan, Cushitic, Chari-Nile, and the most dominant family, Bantu (Iliffe 1979:7). Peoples practiced various subsistence activities including hunter-gathering, pastoralism, and horticulture and later, beginning in the 11th century along the coast, trade with the Arabs and Portuguese (Middleton 1992).

Ethnic identity in present day Tanzania, known in Kiswahili as *kabila,* was largely based upon the association of a group of people with a specific geographic region that subsequently defined their subsistence. Both matrilineal (*see e.g.* Kaguru - Beidelman 1993) and patrilineal kinship (*see e.g.* Swahili - Middleton 1992) groups were present with intermarriage and trade occurring between groups. Until the arrival of the Germans in the 19th century, these groups were not clearly distinguished and their separation into distinct "tribes" by the colonizers greatly

[6]If the reader is interested in a further exploration of Tanzania's history, John Iliffe's 1979 *A Modern History of Tanganyika, published by Cambridge University Press is very authoritative.*

simplified a complicated system of association (Iliffe 1979:8). Political structures varied with groups subscribing to a range of structures from egalitarianism to chiefdoms (Iliffe 1979:21).

2.2b Colonial Tanzania

The area encompassing present-day Tanzania consisted of the mainland Tanganyika, a German colony from 1885, and later a British protectorate post World War I and Zanzibar, a large island off Tanganyika's coast ruled by the Sultan of Oman. Although these two areas differed in many aspects, trade routes had been established from the coast to the interior for centuries; contact between the inhabitants was common. The most poignant aspect of Tanzania's[7] history during this time period was the *MajiMaji* rebellion which occurred in 1905. A local *mganga* (healer), named *Kinjikitile*, claimed that he was a prophet. His message to the diverse peoples that flocked to see him was the need to "unite and drive out the Germans" (Pakenham 1991:616). According to Thomas Pakenham, an author who has written extensively about African colonial history, this rebellion was successful in some ways as it planted the seeds for Tanganyikan unity: "*Kinjikitile* ... gave the first taste of unity to the fragmented peoples of Tanganyika, from the peasant clans of Matumbi to the great warrior tribe of Ngoni" (1991:621). As was evident while doing fieldwork in *Mmoja* town, effects of this unity have persisted to this day, with implications that will be discussed, on the health seeking behaviour of primary caregivers.

2.2c Post-Colonial Tanzania

The unification of the many peoples of present-day Tanzania was further accomplished by Tanzania's first President, Julius Nyerere. The mainland Tanganyika gained its independence in 1961 and in 1964 merged with Zanzibar to formally become Tanzania (Iliffe 1979:576). The

[7] The waZaramo, as will be discussed, the original inhabitants of Mmoja town were primarily agriculturalists and traders.

great pillar of Nyerere's rule was his version of African socialism known as *ujamaa* (extended family); and outlined in the *Arusha Declaration*. One aspect of *ujamaa* was "villagization." This policy meant that traditional social structures were disrupted forcing over half of the Tanzanian population into sedentary villages with the ambition of bringing health care, education and other resources within reach of the country's entire population (Kjekshus 1977:278). In addition, under the doctrines of *ujamaa* and socialism, all citizens were equal. Education became a priority and Kiswahili was adopted as the national language of primary education. Nyerere's *Arusha Declaration* and villagization policies helped define the Tanzanian nation and create a sentiment of unity and relative egalitarianism that was largely absent during the colonial era. The idea of nationhood and the tangibility of Tanzania thus became reified in the minds of the populace. Borrowing on Benedict Anderson's (1985) concept of the nation as an imagined community, Deborah Bryceson suggests:

> [i]magining the nation is a mental feat that twentieth-century Third World nationalist performs against a great deal of material evidence to the contrary. In Tanzania, one of the least economically developed countries in the world, the imagination has to be stretched very far indeed. Nyerere's creative genius has succeeded in portraying the nationalist vision so vividly that people act on it as if it were real" (1988:37).

Ultimately, Nyerere's policy of African socialism failed economically and present day Tanzania went through major structural adjustments in the early 1990s in which many services such as health care were privatized (*See e.g. Tripp 1997*). Socially, however, Nyerere's policy of *ujamaa* left a legacy of egalitarianism that continues to be visible in the peri-urban region of Tanzania where I conducted my fieldwork.

Historically, *Mmoja* town was inhabited by the Muslim, patrilineal waZaramo people. Today, however, a myriad of *kabila* are represented in *Mmoja* from across the country and neighbouring Malawi and Mozambique. These include people who identify themselves as, for

example, *waNdengereko*, *waMakonde*, *waSukuma*, *waYao*, *waNyaturu*, and hold Islamic, Christian and other beliefs. Today, social aspects of Nyerere's policy of *ujamaa* has lessened the divide between migrants and non-migrants in *Mmoja* town lending to the minimal role individual targeted identification frameworks play in implementing and designing health programs in this region. Given that the ability to communicate is one of the primary bases for interaction between two people, Nyerere's policy of *Ujamaa* with its emphasis on the adoption of Kiswahili as Tanzania's language of primary education, among other things, has played a pivotal role in easing and enhancing such interactions among people with diverse backgrounds.

In general, peoples from coastal regions of Tanzania are Muslim while peoples from more interior regions are Christian. The dominance of Christianity in the interior regions of Tanzania and Islam in the coastal regions is largely the result of pre-colonial and colonial historical influences related to trade routes. For example, many migrants from the coastal region of Lindi, an area with strong Arabic influences are Muslim while many migrants from the Lake Victoria region – an area with strong European involvement, the waSakuma, are Christian. This distinction, however, is not clear and occasionally people intermarry and many also convert. Protestantism has recently become extremely popular throughout much of southern and eastern Africa (Pfeiffer 2002), gaining both Muslim and Catholic converts. People strategize

2.3 *Mmoja* Town

In this section, I endeavor to provide an overview of *Mmoja* town to provide the reader with a broad understanding of the specific landscape where I conducted my fieldwork. These descriptions are important for understanding the push and pull migration factors influencing the population in residence and the general spatial organization of the town. As will be later

demonstrated, these two factors are important in influencing primary caregivers' social support networks, and ultimately, their care giving decisions.

Mmoja town is located in *Chamazi* ward, described by the Tanzanian 2002 Population and Housing Census as being "mixed" – neither urban nor rural (2003). It may thus be considered peri-urban. According to this census, Chamazi ward has a total population of 8,313 people with 2,198 households averaging 3.8 people per household. Male and female representation is almost equal, however, females compose a slightly higher percentage of the population[8]. Population estimates for *Mmoja* are difficult to assess as this region has experienced high rates of post-census growth. One scholar (Kamat 2001) estimated *Mmoja's* population to be approximately 5500 people in the year 2001. A European non-governmental organization[9] (NGO) that is active in the area has placed estimates as high as 15 000 people in 2006[10]. This rate is plausible given the high amounts of migration.

Mmoja town is located in a traditional Islamic, coastal region of Tanzania. It has recently undergone major population transitions and is now home to a myriad of peoples with diverse cultural and religious backgrounds. Both mosques and Catholic and Protestant churches are found in the town.

As is the case throughout much of Tanzania, the population of *Mmoja* town is engaged in a multitude of economic and subsistence activities. Many people grow food in their *shamba* (fields), in addition to being engaged in petty business. The *shamba* are owned by both the original inhabitants of *Mmoja* village, the waZaramo, and wealthier local migrants who have

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[8] It is interesting to note that of the 24 wards in Temeke district, according to the 2002 census, most rural and urban districts have a higher proportion of males to females. However, the two mixed or peri-urban wards have a higher proportion of females to males (2002 Population and Housing Census).

[9] I fail to mention the name of the NGO in order to maintain anonymity of Mmoja's actual location.

[10] Based on these two numbers Mmoja's population is substantially more than that of the entire Chamazi Ward. Thus, one must consider that the census is grossly undercounted or the NGOs numbers are greatly inflated.

purchased parcels of land from the traditional owners. The *shamba* range in size from a few square meters located in the immediate vicinity of a house to a few hectares located on the outskirts of town. Most *shamba* are usually worked by their owners. For larger parcels, day labourers are hired to help during times of sowing and harvesting. Therefore, although the majority of *Mmoja* town's inhabitants are not wealthy, most can maintain the basic necessities of life through a mixture of agriculture and business.

Traditionally, housing in *Mmoja* town consisted of mud and wattle. Concrete housing is becoming increasingly common. House sites are largely determined by the availability of land for sale or for lease. Longer term inhabitants are beginning to parcel out the land immediately surrounding their houses for sale to new arrivals. For example, Mzee Abu moved to *Mmoja* Town from a southern coastal region of Tanzania about 12 years ago. He bought approximately one acre of land on the outskirts of *Mmoja* town. During the past six years, however, due to a variety of circumstances that he considers to be misfortunes, he has sold two-thirds of his land to new migrants in order to meet various expenses and to finance the building of a concrete house on his remaining land parcel.

Housing quality and space varies with one's socio-economic situation, and whether one is renting or owning. Many of the concrete structures that are rented consist of a single, hallway with six to eight single rooms branching off. Entire families will often reside in these single rooms. Due to the fact that these structures are crowded, infectious disease is easily spread. These structures are dark and windowless and mostly used for sleeping. Other activities such as cooking and socializing are performed out of doors. This arrangement has important ramifications on the formation of local social networks as it places tenants, landlords, migrants

and non-migrants within the same space. This spatial pattern will be discussed further in the observation and discussion sections of this paper.

In *Mmoja* town, some men and especially women are engaged in petty business such as selling items ranging from tea and chapatti to perfume or soap. A local cooperative provides many women with micro-financing in order start-up such small businesses. Local men are also employed in labour such as sand mining and blacksmithing.

Wages vary with females making less than males. Many female interviewees claimed they made 3000 to 5000 Tanzanian shillings (TSh) a day from their business, approximately $2.50 to $4.25 US dollars in 2007. The same interviewees claimed their male partners made from 5000 TSh to 8000 TSh a day, the equivalent to about $4.25 to $6.80 USD.

Mmoja town is located approximately one hour's *daladala (*minibus) ride from downtown Dar es Salaam and serves as the route's terminus[11]. There is only one major route into *Mmoja* along a tarmac road – although alternative walking and cycling routes are possible through the myriad of footpaths in the area. *Mmoja's* relative proximity and ease of transportation has made it a popular settlement place for rural-urban migrants as a commute to Dar es Salaam only requires one minibus changeover from the route's terminus. This changeover can take anywhere from a few minutes to an hour, depending on the crowds. There are no taxis permanently situated in *Mmoja*, however, drivers will take a fare there.

At the time of research in 2007, *Mmoja* was being connected to *Tanzania's Electric Supply Company's* (TANESCO) municipal electricity grid. Most houses, however, are not wired for electricity. Drinking water is procured via a few pumps that have been established where wells

[11] This is important as it means that villagers do not have to face overcrowded buses on their way to Dar es Salaam.

were dug and are located throughout the town. There is no running water in any houses. Pit-latrines are built behind many of the houses a fair distance away from the wells that are located in the more central, market areas of the town. This set-up is not ideal for the prevention of gastro-intestinal infections. However, it is an improvement over the hygienic situations found in many other parts of Tanzania and East Africa.

Like many east African countries, Tanzania is afflicted by a myriad of infectious diseases such as malaria, HIV/AIDS, dengue fever, schistosomiasis, and tuberculosis. Many of these diseases are exacerbated by environmental factors. *Mmoja* town's humidity, low altitude, peri-urban environment, proximity to freshwater ponds and warm temperatures makes it especially prone to the most severe type of malaria caused by the parasite *P. falciparum,* spread by the *Anopholes* mosquito. Malaria in *Mmoja* town is endemic year-round (MARA Electronic Document). (*See Appendix: Figure 3 – Malaria distribution in Tanzania*) This differs from other regions of Tanzania where malaria is seasonal. Thus, migrants coming from differing regions of the country are accustomed to dealing with quite diverse seasonal patterns of malaria from those found in *Mmoja* town.

A municipal public dispensary provides basic health services for the majority of *Mmoja's* inhabitants. There are also two private dispensaries that cater to those who can afford such services. Both the public and private dispensaries offer the services of a doctor for diagnostic purposes and distribute medications. Additionally, the public dispensary is involved in public health campaigns such as immunizations and has access to government subsidized medications, most importantly Co-artem[12]. The private dispensaries are, unlike the public ones,

[12] Co-artem is the current anti-malarial. It is only available legally via government channels and is highly subsidized by international organizations such as the World Health Organization (WHO).

open 7 days a week and much later hours, A district hospital is located approximately 20 kilometers from *Mmoja* town. Here, more advanced diagnostic tools and specialists are available. If a resident of *Mmoja* town becomes ill and requires diagnosis in the evening or weekend, they will have to visit a private dispensary or make the trip to the district hospital. Three private pharmacies (*duka la dawa*) and at least two herbal medicine shops (*duka ya asili*) are also present in *Mmoja*. At the pharmacies, open late into the evening, *Mmoja's* residents can purchase medicines without prescriptions. The herbal medicine shops similarly can address residents' ailments with a myriad of herbs. Traditional healers known as *mganga* also operate in the region. Thus, a multitude of treatment options exist for primary caregivers of children.

This outline of *Mmoja* town has been provided to familiarize the reader as much as possible with the specifics of the research site. This includes its resources, its demographics, its geography and its positioning within larger Tanzanian society. With this mind, I now turn to discussing the methods and techniques I employed while conducting this study.

3.0 RESEARCH METHODOLOGY

In this section, I provide a description of the techniques I used to gather my data and conduct my observations in *Mmoja* town[13]

3.1 Research Techniques

My fieldwork consisted of participant observation and semi-structured interviews with both *wageni* (migrants) and *wenyeji* (locals). Participant observation included the observation of children and their parents in public spaces such as the market, common areas, and at both the private and public dispensary. I observed participants engaged in various activities such as socializing, playing, eating and preparing food, child care, and illness treatment. In addition, I spent three days at the public dispensary aiding nurses as they dispensed medicines. Observation in these varied settings allowed me to observe health seeking behaviour throughout different stages undertaken by a caregiver with regards to seeking treatment.

In order to be eligible for the study, interviewees were selected based on the following criteria: First, they had to be the primary caregiver for a child under the age of 12; second, they had to be either a recent migrant or long term resident to *Mmoja* town. The establishment of this criteria allowed me to explore the differences, or lack thereof, in health seeking behaviour of migrants and non-migrants.

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[13] I spent one month in *Mmoja* town in July/August 2007 conducting fieldwork as part of the requirements for fulfilling my Master of Arts in Anthropology degree. During this time, I resided in a house, previously built by a professor who has conducted research in the area. This house is located a five minute walk through fields away from the town's main crossroads. Directly in front of this house is a large mango tree that provides shade and an open area. Under this tree, many of the neighbours spend time socializing, doing chores, and the children play. Usually two to ten adults, mostly female caregivers but also men and women ranging from teenagers to seniors, would conduct activities in this area from dusk to dawn. Similarly, anywhere from three to 20 or 25 children would be seen playing in this area during the daytime. I spent much of my time engaged in conversation and play with my neighbours in this immediate area as it was a social hub that was ultimately ideal to observe peoples' daily routines and activities.

Interviews were conducted with the assistance of a research assistant. The research assistant has worked on many anthropological projects in the past and is familiar with many of the interviewees and the process of semi-structured interviewing. In total, we completed semi-structured interviews with 11 women, both *wageni* and *wenyeji* (*See Appendix B: Interview Questionnaire*). Interviewees were selected with the help of Aisha, a local mZaramo woman who has worked in a similar capacity with other research projects in the past.

4.0 DATA AND OBSERVATIONS

In the following section, I provide an overview of the data I collected during the period of my fieldwork in *Mmoja* town. Since I have already established the research setting above, I will begin this section by providing an overview of my interviewees' basic demographic information and situate them within the context of *Mmoja* town. Following this I will discuss migration and urbanization in detail within the context of *Mmoja*'s peri-urban environment. This is important as it will highlight the diverse reasons why people choose to move to *Mmoja* town: why it appeals to migrants, and ultimately the ramifications of such decisions on their health seeking behaviour. Specific examples will be highlighted outlining generalized migration push-pull factors in East Africa. I will also discuss migrant identity in *Mmoja* town. Next, I will comment on observed and reported social and economic networking and residential patterns in *Mmoja* town. The final part of my data and observation section will detail the health seeking behaviours of both migrant and non-migrant primary caregivers in *Mmoja* town.

4.1 Participants' Demographics

The major focal point of my study was to determine and compare the health seeking behaviour of migrant and non-migrant primary caretakers of children younger than 12 years of age. In *Mmoja* town this meant that the vast majority of the participants were young to middle aged women. Although not all of the women I engaged in participant observation with were interviewed, the demographic data of the interviewees provides a strong sample of those characteristics of primary caregivers in *Mmoja* town.

Interviewees' ages ranged from 20 to 38 years of age with a median age of 25 years and an average age of 27.1 years (*See Appendix D: Table 1 - Summary of Interviewees' Ages, Religion, Birthplace, Tribe, Number of Children, Occupation and Education).* Of the eleven women interviewed, five women identified themselves as Christians while six women identified themselves as Muslim. Like most of the inhabitants of *Mmoja* town, the interviewees came from a variety of areas of Tanzania and neighbouring countries, both far away and very local (*See Appendix A: Figure 4 - Map of Interviewees' Place of Birth).* Most women had an average of two children with a range of one to three children. It is important to keep in mind that all women interviewed were still in their reproductive years. Among the interviewees, education levels varied. One local woman, Adija, had no formal education and one woman, Hannah, had some domestic college experience. The majority of the interviewees had attended some years of primary education, and many had completed standard seven – the equivalent of their primary education. Most, however, had not attended high school.

Nine of the eleven women interviewed were currently involved in some sort of relationship with a man – either a formal, recognized marriage or a common-law union. Four of the women were in their second formal relationships, and one was in her third. Most women that had had more than one formal relationship had children from their first and sometimes second husbands. Six of the women, the majority of whom were under 25 years were in their first relationship. Only two of all of the women interviewed were single - one widowed by her second husband; the other recently separated. Although some of the children from previous partnerships remained with their mother, in at least two cases, one local, Muslim and one migrant, Christian, children from a prior relationship had remained with the fathers' family. In those cases where children remained with the father, it was often an aunt or grandmother who fulfilled the role of

the primary caregiver. This observation is important as it demonstrates that in the vast majority of cases women are the primary caregivers of children, regardless of whether the child remains with the mother, or with the father. In peri-urban Tanzania, amongst many of the women that I interviewed, fathers were often transitional figures who played a minimal role in the lives of their children. As will be discussed further in this paper's discussion section, these observations demonstrate how the status of being the primary caregiver and the large participation of females in the informal economy create two elements that forge the basis of social interactions in *Mmoja* town.

4.2 Migration and Urbanization in *Mmoja* Town

A few decades ago *Mmoja* town was a small village characterized predominantly by a large waZaramo, Muslim population. Today it is very heterogeneous. Its inhabitants come from all over Tanzania and many neighbouring countries, such as Mozambique and Malawi. Where Kizaramo used to be the dominant language of the area, today Kiswahili is ubiquitous. To illustrate the cosmopolitanism of *Mmoja* town the following description will serve as an example: Within an area of 100 meters lives long term waZaramo residents, a waMakua mother and her two children from Songea who had arrived in *Mmoja* very recently, a mNyaturu woman from Singida with her Malawian husband and their daughter who had lived in *Mmoja* for a few years, a mDengereko woman born in Rufiji who had relocated to the Chamazi ward at a young age and a mMakonde woman and her three sons, from Mozambique who had lived in *Mmoja* for over a decade *(See Appendix A: Figure 4 - Diagram Demonstrating Cosmopolitanism of Mmoja Town's Populace)*. Such diversity in such a small space highlights the wide ranging

geographical backgrounds of *Mmoja's* residents (*See Appendix : Figure 5 - Map of Interviewees' Place of Birth*).

Mmoja town's changing demographics correspond with standard rates of urbanization due to migration throughout much of the African continent. According to the United Nation's *Urbanization Prospects* (2006) in 150, 11.2% of the population of sub-Saharan Africa lived in an urban context. In 2005, this percentage increased to 35.2% and it is projected that by 2030, 48.3% of the population in sub-Saharan Africa will be urbanized. Currently, the annual urban growth rate is 3.49%. More specifically, Tanzania had an urban population of only 3.5% in 1950. By 2005 24.2% of the population lived in an urban center. By 2030, it is projected that 38.7% of Tanzanians will reside in an urban area. Although the urban annual growth rate in Tanzania peaked from 1970-1975 at 10.32%, from 2005 until 2030 the annual growth rate is anticipated to decrease by just 0.28% from 3.48% to 3.2% (United Nations 2006). Such rapid urbanization has transformed *Mmoja* town in a relatively short period of time from an independent rural village with an agricultural base to a peri-urban town linked directly and largely relying on the proximity of Dar es Salaam. If such trends continue, as projected, this research will be important as increased population density will likely increase the number of people subject to diseases. An understanding of the factors that influence health seeking behaviour in *Mmoja* town can therefore have important ramifications on the creation of efficient health intervention programs.

A variety of factors continue to influence people's decisions to relocate from rural to more urban areas. In *Mmoja* town, as will be demonstrated in the following section, some of these influences are typical of most urban African pull factors. Other influences are quite unique to *Mmoja's* peri-urban environment. Following my observations on factors influencing migrants'

decisions to migrate to *Mmoja* town, I will discuss migrant identity within this context. An understanding of factors influencing migrants' decisions to move coupled with their identity is essential to understanding the factors influencing their health seeking behaviour.

4.2a Migrant Pull Factors to Mmoja Town:

Mmoja town's peri-urban environment shares many of its migration pull factors with Dar es Salaam and other urban African cities. However, some of its appeal as a settling place is more specific to its semi-rural location. *Mmoja's* position, neither urban nor rural means that to some extent it offers the best of both the urban and the rural worlds.

Even though urbanization rates have decreased in Tanzania over the past two decades, *Mmoja* has maintained its appeal as a settling place, attracting people from both the rural and urban areas. In the 1980s, Tanzania, like many other African countries, suffered a major economic recession (Potts 1995:246). This recession was followed by structural adjustments instituted by the World Bank and the International Monetary Fund (IMF) in the early 1990s. Accompanied with this recession and structural adjustments was a slowing down of urban in-migration. As the gap in earnings between the formal and informal sector decreased, the economic incentive that had previously encouraged rural inhabitants to move to the city in search of wage labour disappeared. People who had once held prestigious government jobs in urban areas turned to the informal sector en masse in order to provide for their family's basic necessities (Tripp 1989; Potts 1995). Peri-urban towns like *Mmoja* offer decreased living costs coupled with the ability to be somewhat self-sufficient through growing food.

For example, Anastasia, originally from Singida, had originally come to Dar es Salaam to visit a sister who had married a police officer who worked in the urban center. She stayed in Dar es Salaam where she met her current husband. According to Anastasia:

> *When my husband stopped from working we couldn't afford living in town anymore. House rent and other expenses were so high so I shifted to Mmoja. I have got one of my sisters living at Mmoja so I thought life is cheap here... Yes, you can live here at Mmoja cheaply even. If you have no money to buy food you can get food from the garden or from the farm. You can get a plot for garden or for farming. You can plant cassavas or vegetables so you can't stay hungry even if you have no money.*

As the above statistics and quote demonstrate, in addition to the visible burgeoning population of *Mmoja* town, urbanization due to migration may have slowed but it definitely continues. Although there are some cases of return migration – where people return from the city to their rural homelands, many people have remained in urban and peri-urban areas. Post Tanzania's recession and structural adjustment, many people, as illustrated by many of my informants in *Mmoja* town, and will be herewith discussed, have found the appeal and benefits of living in a peri-urban town.

Prior to my arrival in *Mmoja* town, I had assumed the town acted as a stepping stone for migrants coming from rural areas with the ambition of settling in the urban center of Dar es Salaam. Thus, I believed that *Mmoja* town acted as a transitional area where rural migrants could become acquainted with the larger urban city nearby, without experiencing the high costs of living while having the ability to maintain many of their rural practices, especially food production. Although this was the case among a few interviewees, a multitude of reasons influenced peoples' decisions to move to *Mmoja* town. According to Beatrice, a 25 year old woman from *Mtwara*:

I came here because it is not wise to move directly to an urban area. Mmoja is good to start new life. You can live cheaply. I liked the environment.

Upon arriving in *Mmoja* town and engaging in conversation and participant observation with many informants, I became aware that migrants came to *Mmoja* for a variety of diverse and often complex reasons. In fact, many had chosen *Mmoja* town, not as a transitional home, but as the place of their final settlement.

One of the most common reasons that migrants cited for coming to *Mmoja* was for the solicitation of support and assistance from family already living in the area. This pattern corresponds with the migration pull factors typical of many urban African environments, such as the ability to earn cash wages (Potts 1995:248) and the presence of relatives (Byerlee 1974:548). Aunts, grandmothers, fathers, and older sisters were most often cited as being important family members from whom one could ask for help. For example, Hadiya, originally from Songea, had left her abusive husband while pregnant and accompanied by her first child arrived in *Mmoja* to seek the support of aunt. According to Hadiya:

I came here because the person who I thought could love me and help me was my aunt and she didn't do as I expected.

Although Hadiya had only been in *Mmoja* town for two months, many longer term residents recounted coming to the area as a young child to reside with older sisters, grandmothers or aunts. For example, Ambrosia, originally from Mozambique had came to *Mmoja* over ten years ago:

I had my aunts in Mmoja but they were very old. They also couldn't afford to take me to school. So I was coming to Mmoja to visit them regularly and finally I got pregnant. So I decided to come to Mmoja and live with my sister who was also in Mmoja.

Renata originally moved to the neighbouring town of *Tatu* to live with her father after becoming widowed. She then moved in with an uncle's son in *Mmoja* before renting a house on her own.

After my second husband had died I moved to Tatu (ed. a neighbouring town 15 minutes walk away*). My father had a farm and another house there. So I went to Tatu with my father. I stayed with my father then my uncle's son asked my father to stay with me at his house. If I feel comfortable we will stay together. So I stayed with my brother but later on I moved to my house [in Mmoja] which I rented.*

The decreased cost of living in *Mmoja* town compared with Dar es Salaam and the ability to own land and grow food was often commonly listed. Hanna, the wife of a military veteran and originally from Lindi, initially came to *Mmoja* town because of relatives, but decided to stay because of the fertile farm land.

My husband's relatives were living here so we used to come visit them. So my husband liked this place. He liked the land of Mmoja. He thought it was fertile so we can have farms here.

Another major pull factor for migrants to *Mmoja* town was its proximity to Dar es Salaam. Many women, both migrants and long term residents, relied on the proximity of *Mmoja* town to the city center for conducting their businesses. Some conducted petty businesses where they would buy a product in Dar es Salaam at wholesale and then retail it in *Mmoja* town. For example, Aisha, a 25 year old mZaramo woman, had a perfume business. She would buy 12 bottles of perfume in Dar es Salaam for about 7000 TSh on approximately a weekly basis. She would then sell the bottles on credit to local women in *Mmoja* town for approximately 1500 TSh a bottle, for a total profit of 7000-8000 TSh a week. Aisha collected the money for the product she had sold about a week afterwards and would return to Dar es Salaam to purchase more products. Ultimately, Aisha's proximity to Dar es Salaam provided her relatively easy access to a product at wholesale prices. 40 kilometers and 2 bus rides away, however, the demand for such a product from residents is maintained.

Although, in the literature, the life of rural-urban migrants is often filled with hardship and illness *(See e.g. Scheper-Hughes 1992; Brockerhoff 1995)*, the peri-urban context of *Mmoja*

town offers migrants ample petty business opportunities paired with the ability to be somewhat self-sufficient in terms of food production. When interviewees were questioned as to whether life in *Mmoja* town was better or worse than from where they came, every woman agreed that life was *better*. For example, Anastasia, a 38 year old liquor seller originally from Singida summarized many of the *Mmoja's* benefits, stating:

> *Life is about tolerance and hard working but I find life better at Mmoja then where we lived before. Yes, you can live here at Mmoja cheaply even. If you have no money to buy food, you can get food from the garden or from the shamba. You can get a plot for gardening or for farming. You can plant cassavas or vegetables, so you can't stay hungry even if you have no money.*

Migrants move to *Mmoja* town for a variety of reasons, but most of these reasons equate to a better life – especially in terms of children's health.. Although life in *Mmoja* town is not easy and most people are poor, they do not suffer from ailments such as malnutrition and are able to treat most diseases. In fact, most women who had originally came from other areas of Tanzania, perceived their children's health to be better or the same in *Mmoja* town than in their previous place of residence. For example, Beatrice, a 25 years old from Mtwara stated:

> *The children's health is better here than where I lived before because we get enough food here than before.*

Hanna, a 35 year old farmer and wife of a former solider with the Tanzanian Army stated,

> *The children have normal health. There is no difference in their health if I compare.*

While Anastasia, a 28 year old alcohol seller from Singida stated,

> *The children are healthier here than at the other place because they eat, they go to school, they are playing with others and the climate is good.*

Most migrants to *Mmoja* town viewed their life as being the same or somewhat improved when compared with their place of previous residence. Some of the benefits of *Mmoja* town, such as

proximity to family who are able to offer emotional and economic support and increased opportunity closer to a city center, correspond with pull-factors typical of African urban environments. Other factors, such as the decreased cost of living, in comparison with Dar es Salaam, and the ability to grow food are unique to *Mmoja* town's peri-urban context. Now that I have demonstrated the wide variety of factors influencing people to move to and reside in *Mmoja* town, I will examine how the identities of migrants and locals are constructed. This is essential to understanding patterns of both group's health seeking behaviour.

4.2b *Migrant Identity in Mmoja Town*

In Kiswahili, the term *wageni,* singular *mgeni*, translates into guest. It is opposed to the word *wenyeji* , singular *mwenyeji,* which translates into local, inhabitant, resident or indigenous. This differentiation formed the basis for defining the sub-groups for my interviews. As my original research intent was to determine the differences in health seeking behaviours between recent migrants and local inhabitants much of my research preparations had assumed that these categories were strictly demarcated. These assumptions were based on the literature and the fact that in other East African countries, ethnic xenophobia is rife. For example, Winch et al.(1996) studied local terminology of febrile illness in *Bagamoyo*, a coastal village that, like *Mmoja* town, was originally inhabited by the waZaramo people and has recently experienced a high rate of in-migration. Winch's paper was largely based upon the salience of the categories of migrant and local in defining people's identity and their spheres of social interaction, with ramifications in the health seeking strategies people employed.

Upon my arrival and during my interviews in *Mmoja* town, it quickly became apparent that categories of *wageni* and *wenyeji* were not clearly defined nor of particular importance amongst the young, female primary caregivers. Based on my observations, one's length of time

in *Mmoja* town did not play a significant role in defining the spheres of social interaction amongst the study's participants, nor was it a factor in defining the health of children My interviews ultimately reflect this lack of categorical opposition, as the terms had no clear-cut definition among the women I interviewed. Although question sets based on the participants' length of time in Mmoja town were utilized (*See Appendix B: Interview Questionnaire*), this factor became irrelevant as the line between migrant and local was continually blurred. The ambiguity regarding interviewees' migrant status is best represented in Appendix D: *Table 2 - Summary of Interviewees' Length of time in Mmoja town and Dar es Salaam Region.* This table demonstrates interviewees' length of residence in *Mmoja* town and the surrounding area. It also demonstrates whether or not the interviewee was introduced to me by my assistant as a *mgeni* (migrant) or *mwenyeji* (local), showing an overall lack of correspondence between time in *Mmoja* town and introductory status[14]. It is important to note that during the interviews the women did self-identify with the category for which they were being interviewed.

As demonstrated by the table 2, there is little, if any clear distinction between ones birthplace, *kabila* and length of time in *Mmoja* town and their identity as a migrant or local. The blurring of these categories is further demonstrated by the responses of "migrants" to the question: *Do you think your children get more sick than children of parents who have lived in Mmoja town for a long time?* According to Beatrice, a 25 year old mMakonde woman from Mtwara, and mother of two:

> *They [the children] get sick but not frequently. They get sick like other children. I thank God they don't get sick frequently.*

Anastasia, whose daughter was currently recovering from malaria, similarly answered:

[14] I am thoroughly confident that Aisha clearly understood the study's criteria.

They don't get sick frequently but just like the natives.

Locals were similarly asked: *Do you think your children get more sick than children of parents who have migrated to Mmoja recently?* Their responses were very similar to those of the "wageni". For example, Ambrosia stated:

> *They just get sick in a normal way. They don't get serious diseases...Others who move to Mmoja get sick just because of changing environment if they come from far places; but if they get used [to the environment] they just get sick as others.*

Fatuma, introduced as a mwenyeji, and originally from Rufiji, similarly stated:

My child doesn't get sick frequently. [He] is as others, just normal.

Based on my conversations with both migrants and non-migrant inhabitants of *Mmoja* town, coupled with my participant observations, identity as a migrant or non-migrant is not a dominating factor in defining one's identity or social network in *Mmoja* town. Rather, as will be demonstrated in the following section, other factors, such as residential proximity, family, age and gender dominate in defining ones social group, and subsequently ones health seeking behaviour.

4.3 Defining Spheres of Interaction in *Mmoja* Town

In *Mmoja* town, among the women that I interviewed and women and men that I spent time with, one's identity as a migrant or non-migrant, one's time of residence in the town, and one's identity as a member of a particular *kabila* or as an adherent to a particular religion was not a dominant factor in defining one's social group or health seeking strategies. Rather, in addition to kinship, one's social network and support group was largely defined by factors such as one's age and status as a mother, residential proximity and joint participation in the informal economy.

Among the women whom I spent time with and interviewed, closeness in age and the age of their children were obvious bonds of connection. For example, Hadiya, a very recent Christian migrant and Adija a long term mPogoro, Muslim resident and wife of a landlord, both have young children who are still breastfeeding. Hadiya and Adija would spend much time sitting beneath a large mango tree on woven mats, conversing as they fed their children. In addition to Hadiya's and Adija's similarity in ages and ages of their children, their residential proximity also plays a role in facilitating their friendship.

Mmoja town's unique residential pattern attributes to a situation whereby local, long term inhabitants and recent migrants reside in close proximity to one another and thus interact on a regular basis. When *Mmoja* town was a predominantly waZaramo, rural village, mud houses were interspersed sparsely among *shamba* that grew a myriad of vegetables. As *Mmoja* has grown to become a peri-urban town, various residents have either constructed additional houses for rentals on their land or sold parcels of their land to the newcomers, many of whom have in turn built rentals on their new land. This resulting densification has subsequently led to a complete heterogeneity throughout the town, with non-migrants and migrants, from all around Tanzania and neighbouring countries, living in close proximity and ultimately interacting and providing support for one another (*See Appendix A: Figure 4 - Diagram Demonstrating Cosmopolitanism of Mmoja Town's Populace).*

Since most activities such as preparing and cooking food, laundry and childcare are conducted out of doors, this interspersed residential pattern leads to much social interaction between all individuals regardless of migration status, religion, time in *Mmoja* town, or status as either a tenant or landlord. The importance of spatial proximity in defining social networks is highlighted by the following vignette: Anna, a Christian, mMakonde migrant originally from

Mozambique and a single mother of three was pregnant with her fourth child when she fainted towards the end of her third trimester. Aisha, a Muslim, mZaramo neighbour and Adija, a Muslim, mPorgoro, and wife to Anna's landlord Faraji, took Anna to the dispensary where she remained for medical observation. While Anna stayed at the dispensary her three boys aged approximately three, eight and twelve were jointly supervised and fed by a variety of immediate neighbours. Anna's social support network is largely based on spatial proximity rather than any other factors such as kabila, religion or her migration status.

Although this paper has predominantly focused on women's' relationships, many men had comparable relationships based primarily on residential proximity. For example, Adija's husband, Faraji, and Anastasia's husband, Roberti, constantly were engaged in conversation and could be observed spending many hours, almost daily, playing *bao*[15] under the shade of the mango tree. Faraji was born and raised in *Mmoja* town. He is a mZaramo, in his mid-twenties, Muslim and has one child that is one year of age. He is a landlord who inherited land from his parents. He rents a room in a small cement house to Roberti and his family. Roberti is originally from Malawi. He is Catholic, in his late thirties, works as a casual labourer, and has one daughter who is approximately eight years of age. Although both men have distinct socio-cultural and economic backgrounds, languages, and religions, their love of the game *bao* and residential proximity provides the fundamentals basis for their friendship.

In addition to residential proximity, business-related relationships play an important role in forging social networks among the women I interviewed and with whom I spent time. *Table 3*

[15] Bao is a popular board game throughout much of East Africa. It consists of a wooden board with holes. Pebbles are distributed among the holes and players attempt to capture the other player's pebbles.

- *Summary of Business Endeavours* outlines many of the various business activities with which the women I interviewed were currently and/or previously involved.

Although some women defined their occupation as being a housewife, most had at some time in their life been involved in a form of petty business. They sold various commodities ranging from eggs to chapatti to perfume (See *Appendix D: Table 3 - Summary of Business Endeavours*). These businesses provide the fundamental basis for female social networking in *Mmoja* town as even if a women stops selling a product, she often remains as a buyer.

Women have always been involved in Tanzania's informal economy. However, their involvement blossomed in the 1980s and early 1990s, accompanying Tanzania's era of structural adjustment and liberalization. According to Aili Mari Tripp, who has done extensive work on Tanzania's informal economy, especially focused on urban areas, women's:

> involvement in income generating activities ... has given them greater control and autonomy within the household. They have not been merely passive victims of the hardships wrought by the economic disintegration of the formal economy; they have been actively pursuing solutions to their individual difficulties – *solutions that have had a collective impact at the societal level* (Tripp 2002:229, emphasis mine).

In *Mmoja* town, like other areas of Tanzania, women's involvement in the informal economy is of upmost importance. It has decreased their dependency on men's incomes, increased their solidarity as women, and the establishment of a local business co-operative has allowed them to access financial support in terms of start-up money and emergency funds. Among the women whom I interviewed, the ability to earn an independent income was a source of individual pride, empowerment, and occasionally had disrupted relationships with spouses or partners, subsequently strengthening the solidarity of women as a cohesive group. Beatrice, a 25 year old former shoe seller from Mtwara recounted the failing of her first relationship as follows:

Beatrice: I stayed with my grandmother then when the time reached, I was released and I got married and I got one child but I was not satisfied with our life. The husband was not understanding. Life was hard.

Interviewer: What do you mean by saying he wasn't understanding?

Beatrice: I mean he did not take any advice. He did not want us to do business and get out of poverty. He didn't allow me to work, he just wanted me to stay at home....

Interviewer: So what happened afterwards?

Beatrice: I decided to live alone because nowadays you both need to work so as you can improve your life. It was hard to get clothes. He got money but he didn't give me anything. So I stayed till my child started to walk alone. So I told him that I want to leave and go home. He thought I was joking. I took my child and I went back to my grandmother. Therefore I got another husband with whom I am living.

This vignette is important as it demonstrates the emphasis women place on contributing to a household's income and decreasing their dependency on male partners. Women who have their own income are able to choose to spend it how they like – school fees and medicine for their children, saving it, or buying clothing such as colourful *kanga* wraps for themselves.

Selling goods in public spaces or door to door plays an essential role in women's socialization. As discussed earlier, for example, Aisha, a 25 year old mZaramo, perfume seller goes from house to house to sell the bottles that she has purchased weekly in Dar es Salaam. She sells the bottles on credit and a week later returns to collect her revenue from buyers. Through the action of selling and collecting Aisha, like other women with petty businesses, is in regular contact with the other female residents of *Mmoja* town. Besides the selling of wares, time is spent talking, gossiping and advising on a variety of topics – including child health.

4.4 Health Seeking Behaviour in *Mmoja* Town

Primary caregivers in *Mmoja* town are forced to contend with many life-threatening infectious diseases common throughout much of sub-Saharan Africa. Malaria, pulmonary

infections, meningitis, and gastro-intestinal parasites, can all prove fatal, especially if left untreated. If one considers that among the women I interviewed and spent time with, identity as a migrant or a local was not a significant point of characterization, in conjunction with *Mmoja* town's dominant residential and social networking patterns that work to create ample interaction among primary caregivers, it is not surprising that patterns of health seeking behaviour among caregivers regardless of their *kabila*, religion, or migration history were very similar.

I will begin this section with To demonstrate typical health seeking strategies in *Mmoja* town I will recount the story of Ali and his malaria infection:

For three days in a row, Ali, approximately 8 years of age, the son of a recent migrant, and a usually rambunctious child was very lethargic and complained of being cold. Instead of playing askari (soldiers) with the other boys using toy guns made from banana trees, Ali lay on the ground near the big mango tree. Ali, it should be noted, was known to have an uncaring mother. On the third day, when Ali looked very ill, Adija, a local mother of a one year old, took Ali to the dispensary. At the dispensary, Ali's blood was checked and it was determined that he had a high malaria parasite count. Ali was given malarial medication and within a few days was back to playing askari with the other boys.

In interviews, the primary caregivers recounted almost identical sequences of events as to that recounted above. When caregivers were asked the question, *When you child gets fever (homa) here in Mmoja, what do you do to diagnose and treat the illness?,* their responses outlined a similar sequence of events. Beatrice, a 25 year old recent migrant from Mtwara stated:

I take the child to the dispensary and we do body check up and they go further for treatment like medicine or injection. So they explain to you the disease of your child after all the check up and you get medicine.

Fatma, a 20 year old mother of a little girl approximately 1 and half years old, who had lived in a neighbouring village since she was a young girl similarly stated:

I first take her [the child] to the dispensary to know the disease. Then if it is to buy medicine I buy and give her [the medicine]. If I see she doesn't get well I move to a major hospital for further checkup.

The sequence of events that caregivers followed can be summarized as follows: 1. The caregiver recognizes that the child has a fever. 2. The child is taken to the hospital or dispensary for a check-up. 3. The child is examined. 4. The child receives medication[17]. When caregivers were asked to recount their child's last illness experience, most recounted a similar sequence of events with a few slight modifications. For example, when Ambrosia was asked, *can you tell me about your child's last fever?* She responded:

The day before yesterday my child was sick. So I took him to the dispensary and he was given medication. They didn't check him.

Fatuma similarly recounted her child's last illness episode as follows:

Fatuma: The child complains about headache. He gets periodic fever he might be well in the morning but in the evening he gets fever.

Interviewer: What did you do when you saw it?

Fatuma: I took him to the hospital. I explain how he gets sick then he was checked and the doctor told me that it was malaria. He was given the medication. I gave him full dose and he got well.

Participant observation at the local government dispensary corresponded with the responses of interviewees. The vast majority of patients were young children accompanied by their mothers.

[17] It is interesting to note that not one interviewee mentioned consulting with family or neighbours prior to seeking care at the dispensary or hospital. It is unknown whether they a) did not recount this in interviews because they felt it was not relevant; b) the symptoms of malaria are so well known that caregivers do not require additional advice or c) and quite unlikely, that primary caregivers do not consult with others in such matters.

Following a check up with the doctor, the children with fever were most commonly treated for malaria with the medicine Co-artem[18].

At the government dispensary, patients pay a small user fee of approximately 200 TSh -- approximately 20 cents of the USD. This cost was never brought up as a deterrent for seeking treatment. For example, when asked the question: *If your child is sick what do you do to get treatment to deal with your child's sickness?,* cost was not a factor in delaying treatment. According to Ambrosia, who had lived in *Mmoja* town for 10 years:

> *If I have money or I don't have I just rush to the hospital to get treatment. Afterwards I pay them because they know me. I have lived here for a long time.*

Fatuma similarly responded,

> *I take my child to the hospital then the doctor tells me what to do. If the medicine is freely available at the hospital I take them[19]. If I have to buy and I don't have money I tell my husband to pay.*

Now that I have provided a thorough account of my data and observations, I will discuss the importance of understanding spheres of interactions when designing and implementing health intervention projects, rather than utilizing the categorizations commonly employed by the classic epidemiological model in health intervention projects such as migration history, religious identification or tribal identity.

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[18] Co-artem is currently subsidized by the World Health Organization. Although most East African countries have adopted co-artem as their first-line medicine in malaria treatment, it is only available through government hospitals and dispensaries.

[19] It is not uncommon for the government dispensaries to run out of some medications. Although the medications are free, when this happens, patients must seek medications elsewhere such as the local duka la dawa – drugstores.

5.0 DISCUSSION

My study's initial purpose was to identify the differences in the health seeking behaviour of migrants and non-migrants in *Mmoja* town, a peri-urban area of Tanzania that has received a large influx of migrants over the past few decades. In *Mmoja* town, however, primary caregivers, both migrants and long term residents, recounted almost identical decision making processes regarding the treatment of ill children who exhibited signs of *homa*. In addition, neither group viewed the other group or themselves to be particularly more at risk of illness. In fact, among the primary caregivers who I interviewed, the concepts of migrant and local appeared to be a false dichotomy. Subsequently, categories of differentiation such as religion and ethnic identity that are largely used by the classic epidemiological models to examine the health of a population and to implement intervention programs are mostly irrelevant in this specific location.

Following Bourdieu's concept of strategy, that is, in this study's case, the tacit actions people employ to maximize the health of their children, this research examined the spheres of social interaction generated by one's involvement in social networks largely based on residential proximity, social interaction and participation in and reliance on the informal economy. In this section, I discuss the importance of such subtle strategization on the health and well-being of a population. Drawing upon the work of various scholars such as Marc Swartz, Nancy Scheper-Hughes, and Pierre Bourdieu, I will discuss the importance of values of motherhood resulting from social interaction, residential patterns and mutual dependency created by the informal economy in laying the foundations for interaction play a major role in health making strategies in *Mmoja* town.

5.1 Shared Values Based upon Social Interaction

In 1982, Marc Swartz, a cultural anthropologist, wrote a very pertinent article in which he examined culture distribution within and among five different societies. Beginning with Linton's (1936:84-85) premise that certain statuses share cultural elements (assumptions about relationships among family members), Swartz was able to empirically demonstrate that with the exception of the status of motherhood, the amount of sharing of cultural elements amongst the members of a society is similar to the amount of sharing in cultural elements between two distinct societies. Rather than membership within a particular society being the dominant factor defining the sharing of cultural elements, culture sharing was found to be most consistent between individuals of different roles, but among those who interacted within the family group.

In relation to my study among the diverse migrant and non-migrant populations or "cultures" in *Mmoja* town, Swartz's study and its subsequent findings are extremely relevant. According to Swartz, "[i]n all five of [his] study's societies the highest level of sharing is among family members and only one status, the mother's, shares more internally than do the unrelated people of assorted statuses in the same society" (1982:325). When one considers Swartz's conclusion in conjunction with its exception regarding the status and shared child care practices of motherhood, the consistency in treatment seeking behaviour of migrants and non-migrants in *Mmoja* town is not surprising. Among the 11 participants that I interviewed, seven different tribal groups, or "cultures" were represented. The women interviewed had lived in *Mmoja* town for amounts of time varying from two months to their entire lives and had come from a myriad of different places and even different countries! Yet, regardless of such differences, interviewees' reported and observed treatment seeking behaviour was identical. There was no relation between the treatment seeking behaviour, or shared cultural elements of interviewees

based on dominant cultural traits such as *kabila*, first language, or religion. Their child care practices developed via *habitus* though caregivers' interdependency and interaction with other mothers established shared strategies and values when faced with illness treatment. This corresponds with Swartz's findings that there is no difference in levels of culture sharing within a culture or between two cultures.

With these observations in mind, the epidemiological model can benefit directly. Rather than focusing on the distinctions between the interviewees, it is more pertinent to focus on *habitus* - those forces that generate socialized caregivers' treatment making strategies. Thus, the common values that most primary caregivers share - that is the well-being of their child(ren), bestows upon them a strong basis for communication with each other regardless of their diverse background.

This conclusion, however, leads one to my next point of discussion– why is this ability to communicate based on social interaction of mothers more pertinent in treatment making strategies than other factors commonly utilized in epidemiological models such as migrant status, race, religion, language, etc.? The answer in the specific case of *Mmoja* town can be highlighted via a discussion of social networking.

5.2 Networking in *Mmoja* Town

As became apparent during fieldwork and as discussed in the above data and observation section, in *Mmoja* town, social networks are not based upon classifications of religion, migration status or other typical categorizations. Rather, a multitude of structural factors - historical, economic and political have concomitantly interacted, creating a situation whereby women from a multitude of backgrounds and belief systems participate within the same social network,

subsequently creating socialized bodies. In the peri-urban town of *Mmoja*, this participation is largely attributed to primary caregivers' social interactions based on their status as mothers and their joint dependency on the informal economy coupled with residential spatial proximity. My original hypothesis that migrants and non-migrants would have different illness seeking strategies and subsequently different levels of health was falsely based on the assumption that structural constraints would surpass individual agency in defining relationships; that there would be a substantial social divide between migrant and non-migrant residents in *Mmoja* town.

Such a social divide has been documented by other scholars, especially in urban centers in Latin America where migrants often experience worse health than residents. According to Martin Brockerhoff (1995), who has written extensively on migrant health in Latin America, this disjuncture between the health of migrants and non-migrants is not as salient in sub-Saharan Africa. According to his article "Child Survival in Big Cities: The Disadvantages of Migrants", Brockerhoff adds a side note that unlike Latin America, there is a not a significant documented difference between child survival and caregivers' migration status in sub-Saharan Africa. In addition, Brockerhoff claims that this difference is deemed to be even less significant in smaller urban areas. My observations in *Mmoja* town correspond with Brockerhoff's side note regarding sub-Saharan Africa. According to informants, coupled with observations at the dispensary and around town, no significant difference exists between the health of migrants and non-migrants.

One of the most dominant factors affecting the formation of social networks and encouraging social interaction in *Mmoja* town is its encouragement of interspersed residential patterns. As portrayed in the above data and observation section, as *Mmoja* town's original inhabitants have sold off parcels of their land to newcomers, or built structures as rentals, the population has densified with both locals of various incomes – i.e. landlords and tenants; as well

as migrants – both owners and tenants, living within the same space. Due to the fact that the majority of women's activities such as laundry, food preparation, child care, etc., are performed out of doors, ample socialization occurs amongst them regardless of their various backgrounds. Although the shared status of motherhood based on similar underlying values provides a basis for networking and communication amongst the interviewees in *Mmoja* town, it does not completely account for it. According to the 2001 review article, "Birds of a Feather: Homophily in Social Networks", "similarity breeds connection" (McPherson et al. 2001:415). Thus "[h]omophily in race and ethnicity creates the strongest divides in our personal environments with age, religion, education, occupation and gender following roughly in that order" (415). In *Mmoja* town, this does not appear to be the case. The interviewees in this study came from a myriad of ethnic backgrounds, practiced different religions to various extents, and had varying levels of education. In the case of *Mmoja* town, the shared values and strategies resulting from social interaction amongst mothers, coupled with interspersed residential proximity played a major role in the establishment of spheres of interaction – which ultimately account for the uncanny similarity amongst all the interviewees in their health seeking strategies. There is one other factor, however, that played a major role in solidifying the social interaction of the interviewees – their reliance on one another's participation in the informal economy.

Life is hard for the many inhabitants of *Mmoja* town. Although their lives are not dire, many of the interviewees live day to day, struggle to send their children to school, and deal with a variety of illness that are rampant in sub-Saharan Africa. The majority of the women interviewed told stories of abandonment and have at one time or another in their lives had to depend solely on themselves for the survival of themselves and their children. Subsequently their participation in the informal economy acts as the major solidifying factor of the social

network. In her book, *Changing the Rules: The Politics of Liberalization and the Urban Informal Economy in Tanzania*, Aili Mari Tripp (1997) recounts a story in Dar es Salaam where an unlicensed and thus illegal minibus, carrying a load of commuters is pulled over. In this situation, the commuters, complete strangers from one another, begin to sing and pretend that they are all family en route to a wedding. The police allow the "wedding party" to unheedingly continue. Tripp's vignette exemplifies the centrality of the informal economy in Tanzanian society and its ability to bring a myriad of strangers together for the common well-being of all.

In *Mmoja* town, the informal economy provides a means through which many women maintain an economic livelihood, form a communication network, and ultimately create a situation of mutual obligation and responsibility, solidifying the social network. For example, Ambrosia is a 27 year old egg seller, originally from Mozambique. Although she is currently in a common-law relationship, she supports herself and her children through selling eggs. Whenever Ambrosia has eggs to sell, she walks throughout the town, often visiting a range of residents of various backgrounds. On these rounds to sell her eggs, Ambrosia ultimately spends much time visiting and gossiping with other primary caregivers in *Mmoja* town, thus forging a strong communication network. Ambrosia often sells her eggs on credit. This method of selling on credit works to reinforce the communication and social networks as Ambrosia will return to the households she has sold eggs to the following week to collect her money. In addition, this method of selling on credit creates a situation of mutual obligation and responsibility. A matter of trust is involved as Ambrosia must depend on the fact that the buyer of her eggs will repay her the following week. Subsequently if Ambrosia buys perfume from Aisha on credit, and must pay her back in a week, Ambrosia must rely on the fact that her egg buyers will be paying her back so that she can fulfill her financial obligations to Aisha. Thus the informal economy

provides not only a means of subsistence, but also an effective communication network and social support network reliant on mutual responsibility and obligation.

This mutual dependency as the basis for the formation of a social network has been observed by other scholars in the past such as Nancy Scheper-Hughes. In the monumental work, *Death Without Weeping: The Violence of Everyday life in Brazil,* Scheper-Hughes discusses the class solidarity that exists in *Alto do Cruzeiro,* a slum area home to many migrants, and its accompanying "ethic of open and balanced reciprocity" (1992:98). According to Scheper-Hughes, among the poor in the Alto "money, food, medicines and relatives (but most especially children) circulate continually in a ring of exchange that links …the impoverished households" (1992:99). She then continues to exemplify this fact stating that "there is no household so wretched that it will …deny help to a neighbour whose *feira* basket is completely empty, even though migration and hunger are constant and ordinary, rather than occasional and extraordinary, events" (1992:99). Similarly, in *Mmoja* town, although people were poor, they were always willing to lend a hand to a child or mother in need. For example, *Mama Mbili* suffered from some sort of mental illness whereby she was unable to properly care for herself or her two children – one aged approximately 8 years and the other an infant. The older child was almost completely cared for by other adults in the town who provided him with food. The infant remained with her mother, being breastfed and carried around the town. Neighbours constantly would adjust *Mama Mbili's kanga* (a cloth used as clothing and for carrying infants), to ensure the safety of the infant, in addition to cleaning the infant and providing food to *Mama Mbili.* Thus, although the inhabitants of *Mmoja* town were poor, and often struggled to make their own ends meet, they never hesitated to provide aid to those in more need than themselves.

In *Mmoja* town, a variety of local, regional and national factors have converged, creating a situation whereby social networks are formed amongst people who may be viewed, given their distinct backgrounds, as unlikely candidates. This interaction, patterned over time into habitus, is largely responsible for accounting for the similarities in health seeking behaviours of both migrants and long-terms residents in the town. The shared values and common practices resulting from the social interaction amongst mothers, interspersed residential proximity and joint participation in the informal economy forges networks of solidarity, eases communication and creates reciprocal sentiments of mutual responsibility and obligation. Ultimately, as will be addressed in this paper's conclusion, an understanding of the spheres of interaction that are prominent in *Mmoja* town based on the previously discussed factors has had important ramifications for health intervention programs.

6.0 CONCLUSION AND FURTHER AREAS OF RESEARCH

6.1 Summary of Findings

My conclusions for this paper are largely based upon an assumption in the literature that formed the basis of my original hypothesis, ultimately proving to be false. I commenced my fieldwork in Tanzania anticipating a perceptible disjuncture between the health of migrants and non-migrants and subsequently planned on studying the differences in each populations' health seeking strategies. Given that basic epidemiological models classify risk factors and target intervention programs based upon a population's general structure such as migration history, ethnic background, and religion; in addition to the fact that migrants to *Mmoja* town come from diverse, ecological areas of Tanzania and other neighbouring countries and hold different ethnic and religious identities, such diversity in health seeking behaviour was a feasible assumption. My research questions and design were consequently based upon this assumed disjuncture between different portions of the population. As previously discussed, in *Mmoja* town, it quickly became apparent that amongst primary caregivers, *spheres of social interaction forged through* ***joint participation in the informal economy, ones common practices and shared values as a primary caregiver*** *and the town's* ***spatial organization*** *surpassed any other factors in formulating health-seeking behaviour.* Typical structural classifying factors such as religion, ethnic background and migration history were highly irrelevant indicators of participants' health seeking behaviour. Thus, within the health care context of *Mmoja* town, caregivers' decision making was based on the *habitus*, pre-constituted by other primary caregivers within the community. This finding follows Bourdieu's notion of agency, whereby social interactions rather than structure principally define peoples' strategizing behaviour.

As brought forth in section 2.2, the historical context portion of this paper, and elaborated upon in my discussion, in the case of *Mmoja* town, historical, political and economic factors, that is structure, located at the local, regional and national levels have interacted to create specific sets of assumptions that lay the basis for interaction among primary caregivers in *Mmoja town.* People work within this structure as socialized bodies, constantly updating and reformulating their health seeking strategies based on what they learn via their everyday interactions with each other. Women's shared sets of values based upon their social interactions, coupled with their reliance on each other's support in the informal economy, takes precedence in defining spheres of interactions that influence decision making strategies when it comes to treating a child with *homa* (fever). In addition, as demonstrated through my overview of the research setting in section 2.3 and my discussion section, *Mmoja's* peri-urban context, the result of broader structural factors, has created a residential pattern extremely beneficial in initiating and maintaining solidarity among both long term residents and migrants.

6.2 Areas of Future Research

This preliminary study on health seeking behaviour in *Mmoja* town has identified important avenues for future research. To begin with, a second, longer term study would be beneficial in order to determine whether migrants` and non-migrants' reported health seeking behaviour and actual health seeking behaviour are the same. Although my observations at the local dispensary correspond with the behaviour reported by my primary informants, a longer term study would be useful in pointing out both discrepancies and consistencies between reported and actual behaviour.

In addition to a longer term study within *Mmoja* town, in order to substantiate if this study's conclusions are particular to *Mmoja* or have widespread applications, it would be beneficial to conduct a multi-sited study on health seeking behaviour in selective rural, urban and peri-urban regions of Tanzania. Such a study would be able to pinpoint whether the conclusions based on the *Mmoja* study are particular to the specific context of *Mmoja* town, peri-urban Tanzania, Tanzania, East Africa, etc. This study could help determine the extent to which the spatial organization of the study area or other more widespread historical, political and economic factors affects the value system of primary caregivers, subsequently altering their basis for communication and interaction. In addition, in such a study, the health of migrants and non-migrants could also be compared to determine if certain structural variables – for example, the proximity to a health center, affects the population's health status. With this knowledge, more appropriate health intervention strategies can be developed.

If the above proposed studies are effective in demonstrating the widespread importance of social interaction in defining the health seeking behaviour of a community, a pilot project should be commenced whereby a health intervention program is initiated and communicated solely via the effective use of the pre-established social network. The efficacy of this program can then be evaluated.

6.3 Applications of Research and Recommendations

This study`s finding that social interaction surpasses structural epidemiological classifying factors in defining the health seeking behaviour of primary caregivers in *Mmoja* town is important as it potentially demonstrates why many health intervention programs, that continue to be based on structural categorizations fail. This study's conclusions exemplify the importance

of a holistic approach when implementing and designing health intervention programs. Although further studies are required to determine if the results of this study, that is the centrality of *habitus* in defining health seeking behaviour, are specific to *Mmoja* town, peri-urban Tanzania, or even East Africa, the initial results exemplify why the classic epidemiological model of classifying behaviour based on specific cultural traits is insufficient. I will conclude this paper with the following two recommendations based on this study's findings:

1. Each community has specific dynamics. It is essential that when government and/or NGOs design and implement health intervention programs, a community's specific dynamics based upon the patterns of that community's spheres of social interactions are thoroughly understood.

2. Social networks are an indispensible tool via which health information can be disseminated proficiently and accurately. The success of the informal economy in Tanzania and micro-financing co-operatives are more than economic development success stories for the impoverished women whose lives they have most positively affected. Rather, these systems generate socialized bodies with common sets of assumptions and mutual dependency amongst large populaces of women. This offers a strong basis for effective communicative avenues via which health messages can be broadcast effectively and economically.

Ultimately, population based health programs and interventions that incorporate community based methods of communication via pre-established social networks, grounded on common sets of assumptions will have the ability to reach the most people effectively. The classic epidemiological model that relies on individual classificatory factors such as age, gender, religion or tribal affiliation is an insufficient means of targeting community health and well-being in the rapidly changing, developing world. This study has demonstrated the importance of

social interactions based on the informal economy and spatial proximity in defining the health seeking strategies of primary caregivers regardless of migration status, religion, tribal affiliation, primary language, etc. These findings ultimately offer suggestions regarding new avenues for future research into the design and implementation of health intervention programs.

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Appendix A: Figures

Figure 1: Classic Epidemiological Triad

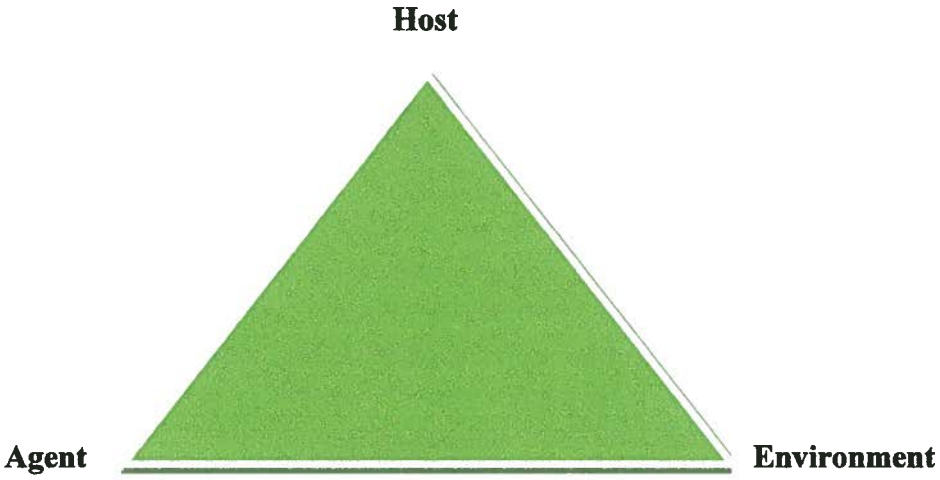
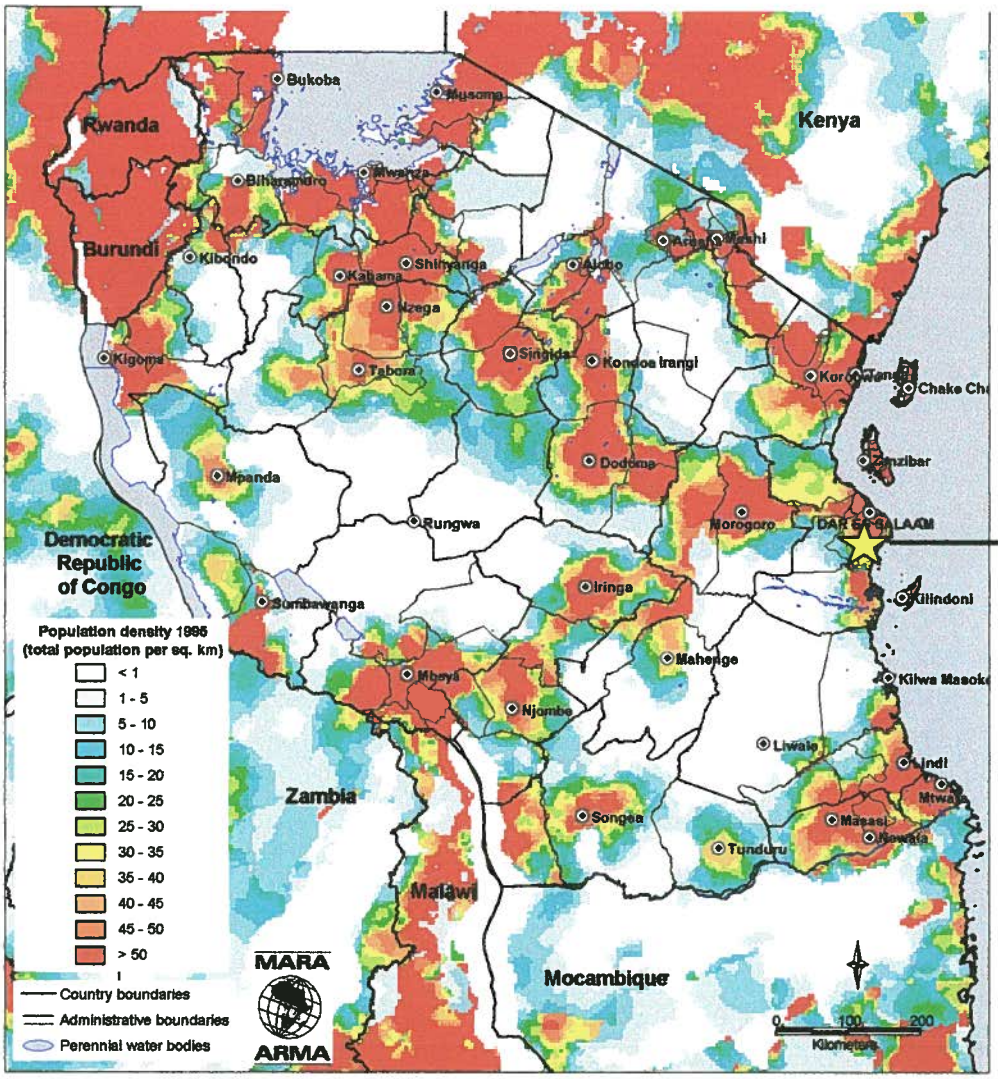


Figure 1: If any element in the triangle is altered, a host's (person's) risk of disease can be increased or decreased. The epidemiological model often focuses on identifying those characteristics of the host that makes them more at risk of contracting disease.

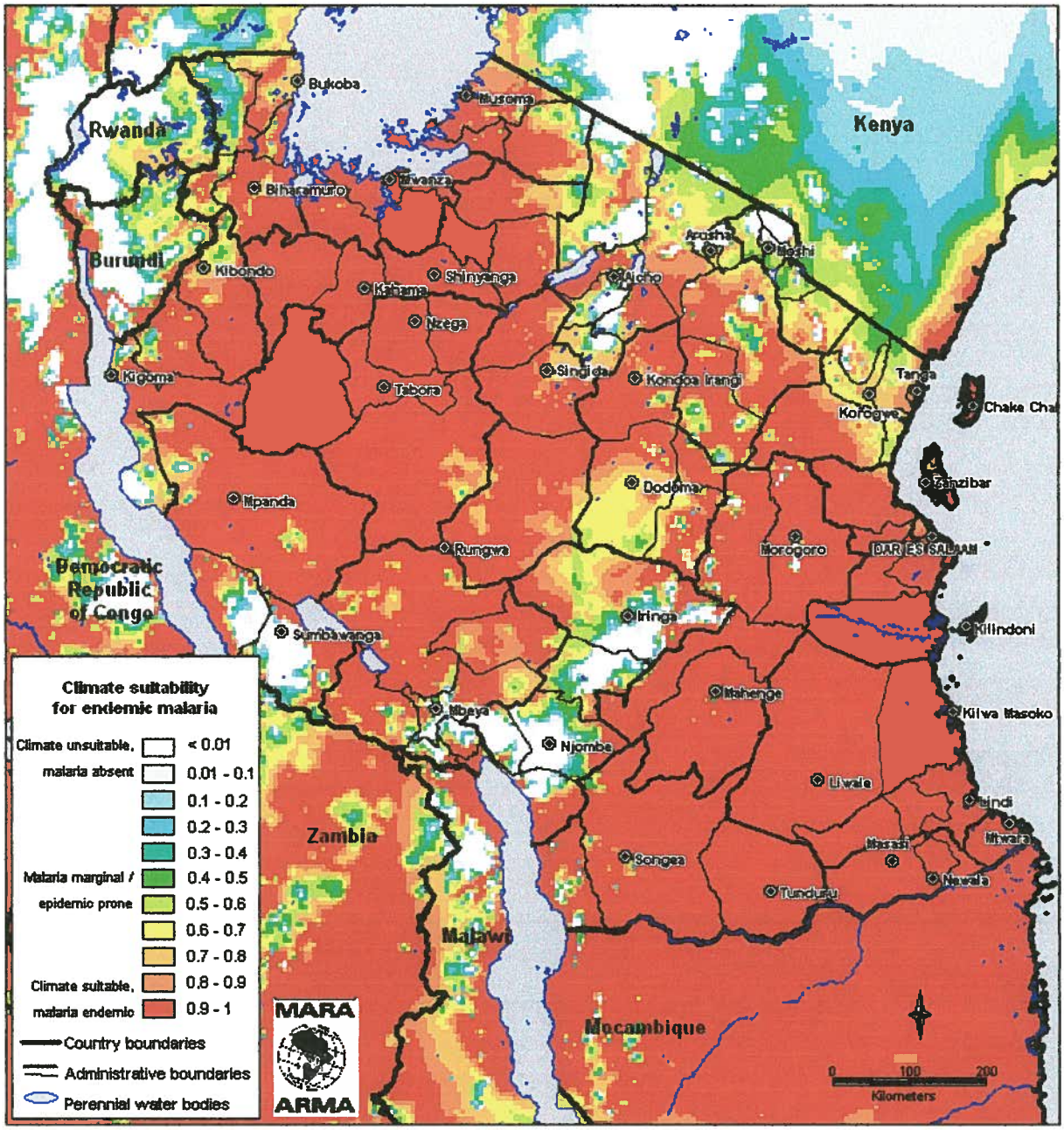
Figure 2: Geographic and Population Density Map of Tanzania and Surrounding Countries



Mmoja Town

Source: Mapping Malaria Risk in Africa. 2004 Electronic Document, www.mara.org.za, accessed Oct 19, 2008.

Figure 3: Malaria Distribution in Tanzania



This map is a product of the MARA/ARMA collaboration (http://www.mara.org.za). July 2002, Medical Research Council, PO Box 70380, Overport, 4067, Durban, South Africa
CORE FUNDERS of MARA/ARMA: International Development Research Centre, Canada (IDRC); The Wellcome Trust UK; South African Medical Research Council (MRC); Swiss Tropical Institute, Multilateral Initiative on Malaria (MIM) / Special Programme for Research & Training in Tropical Diseases (TDR), Roll Back Malaria (RBM).
Malaria distribution model: Craig, M.H. et al. 1999. Parasitology Today 15: 105-111.
Topographical data: African Data Sampler, WRI, http://www.igc.org/wri/sdis/maps/ads/ads_idx.htm

Source: Mapping Malaria Risk in Africa. 2004 Electronic Document, www.mara.org.za, accessed Oct 19, 2008.

Figure 4: Diagram Demonstrating Cosmopolitanism of Immediate Area surrounding my residence in *Mmoja* Town

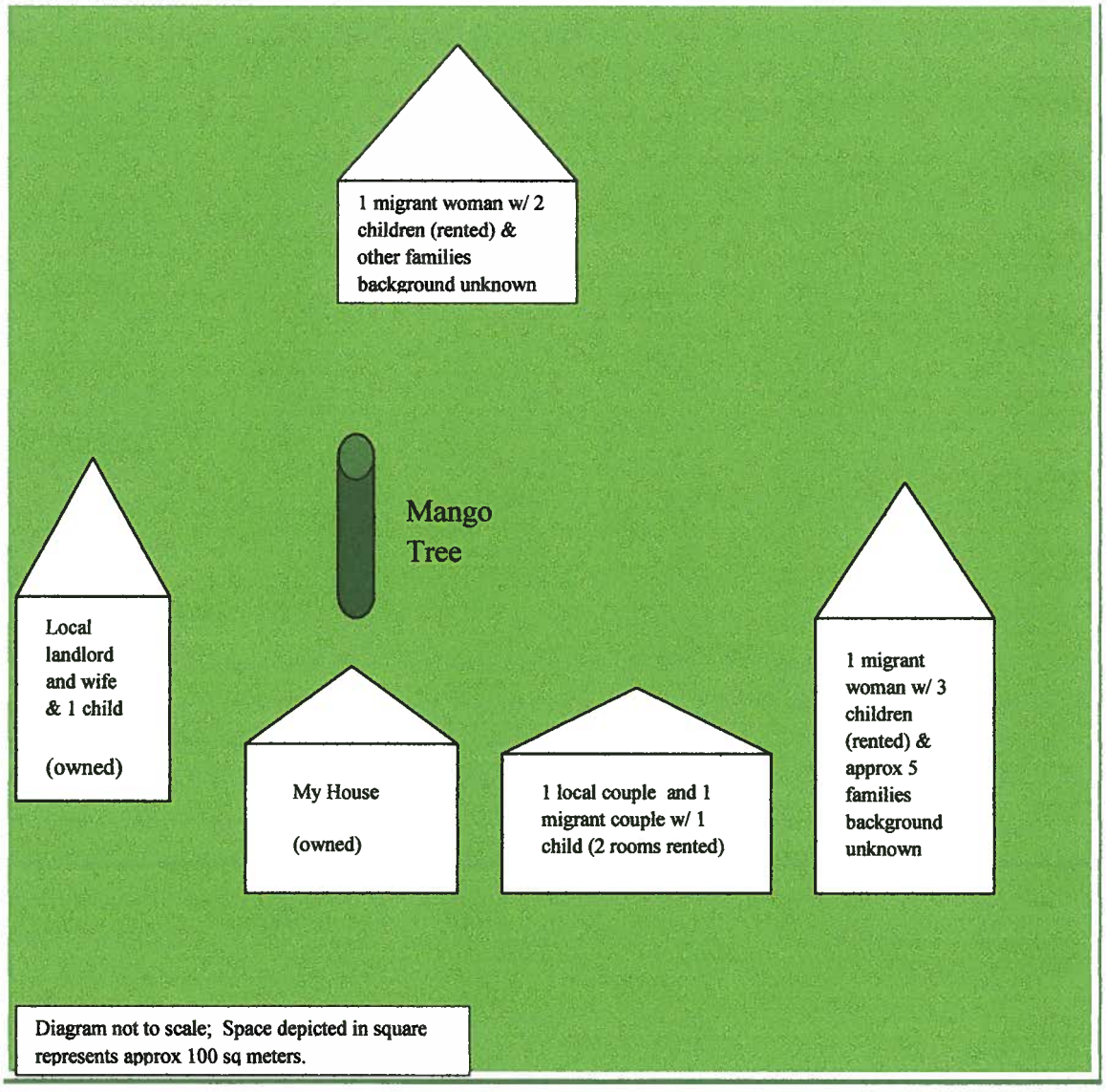
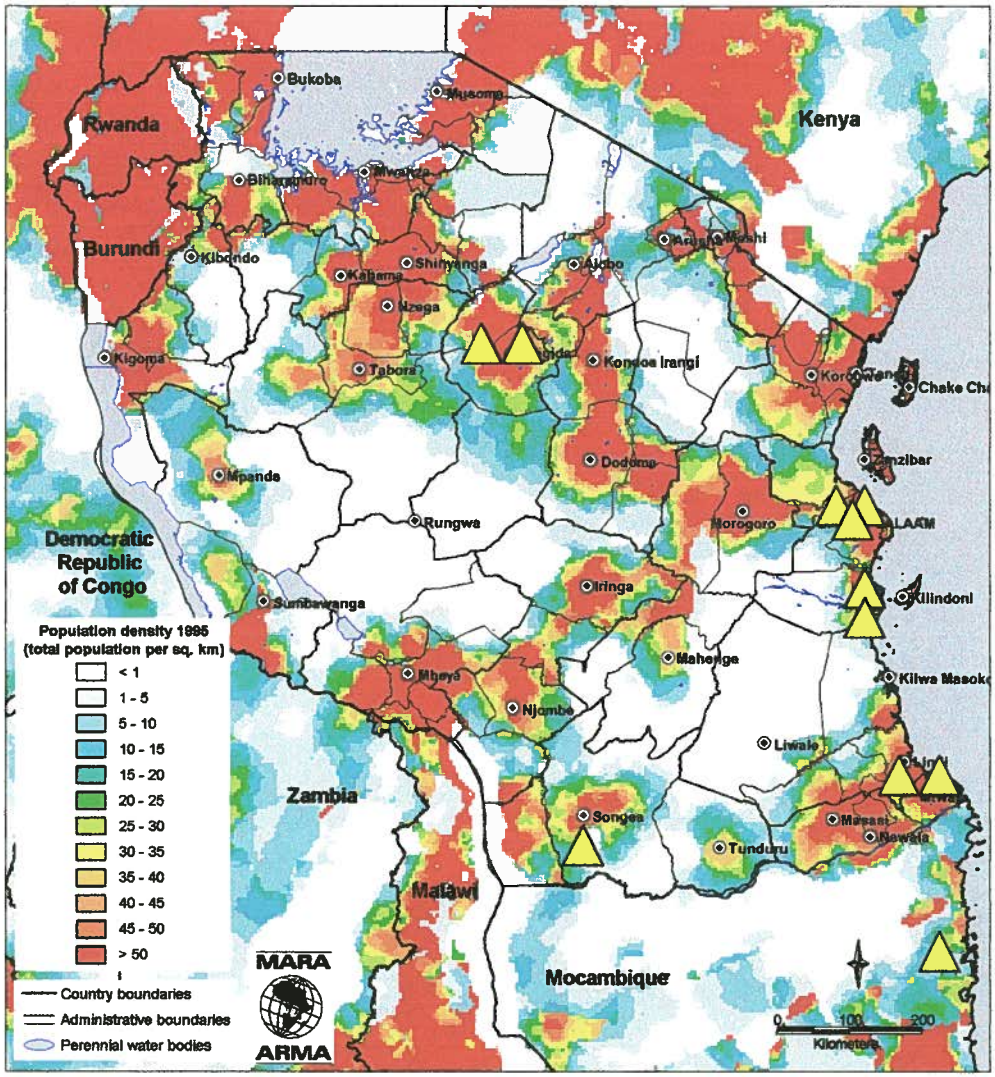


Figure 5: Map of Interviewees` Place of Birth

▲ - Denotes birthplace of interviewee



This map is a product of the MARA/ARMA collaboration (http://www.mara.org.za). July 2001, Medical Research Council, PO Box 17120, Congella, 4013, Durban, South Africa
CORE FUNDERS of MARA/ARMA: International Development Research Centre, Canada (IDRC); The Wellcome Trust UK; South African Medical Research Council (MRC);
Swiss Tropical Institute, Multilateral Initiative on Malaria (MIM) / Special Programme for Research & Training in Tropical Diseases (TDR), Roll Back Malaria (RBM).
Africa Population Database: Deichmann, U. 1996. World Resources Institute (WRI), http:// www.grid2.cr.usgs.
Topographical data: African Data Sampler, WRI, http://www.lgc.org/wri/edis/maps/ads/ads_idx.htm.

Source: Mapping Malaria Risk in Africa. 2004 Electronic Document, www.mara.org.za, accessed Oct 19, 2008.

Appendix B: Interview Questionnaire

The following are a list of questions that provided the basis for the semi-structured interviews that were conducted with both *wageni* (migrants) and *wenyeji* (locals).

Wageni Question Set:

1. **What is your name?**
2. **How old are you?**
3. **Where were you born?**
4. **Which tribe are you?**
5. **Are you married?**
6. **To Whom are you married?**
7. **How many children do you have?**
8. **What is your religion?**
9. **What do you do for a living?**
10. **Can you tell me about your life starting from what you remember when you were young until the present day?**
11. **What is your education level?**
12. **In your opinion, do you find life is harder here in this village compared to the village you came from?**
13. **When your child had a fever in your origin village, what did you do to diagnose and treat the illness?**
14. **When your child gets a fever here in Mmoja, what do you do to diagnose and treat the illness?**
15. **Where do you normally get your treatment from?**
16. **As you know, many children in this region die of sickness. What, according to you, are some of the reasons why children don't survive their sickness?**
17. **Do you think your family is healthier here in *Mmoja* than in your village of origin?**
18. **Could you tell me about your last child's fever?**
19. **Do you think your children get more sick than children of parents who have been in *Mmoja* village for a long time?**

***Wenyeji* Question Set:**

1. **What is your name?**
2. **How old are you?**
3. **Where were you born?**
4. **Which tribe are you?**
5. **Are you married?**
6. **How many children do you have?**
7. **What is your religion?**
8. **What do you do for a living?**
9. **Can you tell me about your life – starting from what you remember when you were young until present day?**
10. **What is your education level?**
11. **When your child gets a fever here in *Mmoja*, what do you do to diagnose and treat the illness?**
12. **As you known, many young children in this region die of sickness. What, according to you, are some of the reasons why children don't survive their sickness?**
13. **Could you tell me about your last child's fever?**
14. **Do you think your child gets more sick than the children of parents who have not stayed long in *Mmoja* village?**

Appendix C: Glossary

The following is a reference list of Kiswahili words that are used periodically throughout this paper.

daladala – minibus; common form of public transportation in Tanzania.

duka ya asili – store that sells herbal and traditional medicines.

duka la dawa – pharmacy; sells largely medicines that are bio-medical

homa – fever

kanga – a traditional covering cloth worn by Tanzanian women. Also used for various other purposes such as the carrying of infants and young children.

kabila - tribe

*mganga** – a traditional healer.

mgeni – translates directly as guest; also used to describe migrants.

mwenyeji – translates directly as local inhabitant;

shamba – plots of land, varying in size, used to grow a myriad of vegetables and fruits.

ujamaa – extended family. Also used to describe the fundamentals of Nyerere's *Arusha Declaration*

umoja – unity. This term is used throughout East Africa to denote people's solidarity.

wageni – plural form of *mgeni*

wenyeji – plural form of *mwenyeji*

* note in Kiswahil, an *m-* preface denotes singular while a *wa-* preface denotes plural. For example, a mZaramo denotes a single Zaramo person while waZaramo denotes more than one Zaramo person.

Appendix D: Tables

Table 1: Summary of Interviewees' Age, Religion, Birthplace, Tribe, Number of Children, Occupation and Education

Name	Age	Religion	Birthplace	Tribe (Kabila)	# of Children	Occupation	Education	Marriage Status
Beatrice	25	Christian	Mtwara	Makonde	2	Houswife & Shoe Seller	S4 – 4 years primary education	Married
Hadiya	23	Christian	Songea	Makua	2	Housewife & Chapati Maker	S7 – completed primary education	Separated – Single
Anastasia	38	Christian	Singida	Nyaturu	2	Housewife & Alcohol Seller	S7 – completed primary education	Common-Law
Renata	35	Muslim	Buguruni	Zaramo	3	Chapati Maker	S7 – completed primary education	Widow - Single
Rania	25	Muslim	Bungu Village	Dengereko	3	Housewife	S7 – completed primary education	Married
Fatma	20	Muslim	Rufiji	Dengereko	1	Housewife	S7 – completed primary education	Common-law
Aisha	25	Muslim	Temeke	Zaramo	1	Perfume Seller	S7 – completed primary education	Married
Adija	20	Muslim	Mbagala	Pogoro	1	Housewife	Never attended school	Married
Hannah	35	Christian	Rondo	Yao	3	Farmer	F3 -completed primary school and attended 3 years of secondary school.	Married
Fatuma	25	Mulsim	Rufiji	Dengereko	1	Housewife & Soap Seller	S6 – Attended 6 years of primary school	Married
Ambrosia	27	Christian	Nanyala, Mozambique	Makonde	3	Egg Seller	S3 – Attended 3 years of primary school	Common-Law

Table 2: Summary of Interviewees' Length of Time in *Mmoja* Town and Dar es Salaam Region

Name	Age	Birthplace	Tribe (Kabila)	Time in *Mmoja* Town S=Short – under 2 years; M=Medium – b/w 2-10 years; L= Long - Over 10 years	Time in Greater Dar es Salaam Region S=Short – under 2 years; M=Medium – b/w 2-10 years; L=Long - Over 10 years	Introduced as mgeni (guest) or mwenyeji (local)
Beatrice	25	Mtwara	Makonde	S	L	Mgeni
Hadiya	23	Songea	Makua	S (2007)	S (2007)	Mgeni
Anastasia	38	Singida	Nyaturu	M	M	Mgeni
Renata	35	Buguruni	Zaramo	S (2005)	M	Mgeni
Rania	25	Bungu Village	Dengereko	M (2001)	M	Mgeni
Fatma	20	Rufiji	Dengereko	S (2006)	L (1990)	Mwenyeji
Aisha	25	Temeke	Zaramo	L	L	Mwenyeji
Adija	20	Mbagala	Pogoro	L	L	Mwenyeji
Hannah	35	Rondo	Yao	S	S	Mwenyeji
Fatuma	25	Rufiji	Dengereko	S	S	Mwenyeji
Ambrosia	27	Nanyala, Mozambique	Makonde	L (1996)	L	Mwenyeji

Table 3: Summary of Interviewees' Business Endeavours

Name	Age	Business Endeavour
Beatrice	25	Currently housewife, previously was a shoe seller
Hadiya	23	Currently housewife, previously cooked chapatti[20]
Anastasia	38	Currently sells alcohol
Renata	35	Currently cooks and sells chapatti
Rania	25	Currently housewife and reed mat weaver
Fatma	20	Currently housewife
Aisha	25	Currently sells perfume
Adija	20	Currently housewife
Hannah	35	Farmer and cooks chapatti
Fatuma	25	Housewife, previously sold soap
Ambrosia	27	Currently sells eggs

[20] Chapattis are bread-like food.

Appendix E: Ethics Approval Certificate

The University of British Columbia
Office of Research Services
Behavioural Research Ethics Board
Suite 102, 6190 Agronomy Road, Vancouver, B.C. V6T 1Z3

CERTIFICATE OF APPROVAL - MINIMAL RISK

PRINCIPAL INVESTIGATOR:	INSTITUTION / DEPARTMENT:	UBC BREB NUMBER:
Vinay Kamat	UBC/Arts/Anthropology	H07-00878

INSTITUTION(S) WHERE RESEARCH WILL BE CARRIED OUT:

Institution	Site
N/A	N/A

Other locations where the research will be conducted:

Research will be conducted in a village located in Temeke District, Dar es Salaam, Tanzania. Ethnographic participant observation will be conducted in the field with focus on public spaces specifically community health centers to identify research subjects based on the project's selection criteria. In-depth interviews and further participant observation will be conducted in the selected participants' homes or in another location of their choice.

CO-INVESTIGATOR(S):

Melissa Aragon

SPONSORING AGENCIES:

Social Sciences and Humanities Research Council of Canada (SSHRC)

PROJECT TITLE:

Coping with Illness: Prevention and Treatment of Malaria among Urban Migrant Caregivers in Dar es Salaam, Tanzania

CERTIFICATE EXPIRY DATE: July 28, 2008

DOCUMENTS INCLUDED IN THIS APPROVAL:	**DATE APPROVED:** July 28, 2007	
Document Name	**Version**	**Date**
Protocol:		
Research Proposal	Version 1	May 14, 2007
Consent Forms:		
Life History Consent Form	Version 2	July 1, 2007
Consent Form Health Worker	Version 2	July 1, 2007
Illness Narrative Consent Form	Version 2	July 1, 2007
Questionnaire, Questionnaire Cover Letter, Tests:		
Health Practitioner Interview Script	Version 1	May 14, 2007
Caregiver Illness Narrative Interview Schedule	Version 1	May 14, 2007
Caregiver Life History Interview Schedule	Version 1	May 14, 2007
Letter of Initial Contact:		
Letter of Contact Health Care Practitioners	Version 2	July 1, 2007
Letter of Contact Primary Caregivers	Version 2	July 1, 2007

The application for ethical review and the document(s) listed above have been reviewed and the procedures were found to be acceptable on ethical grounds for research involving human subjects.

Approval is issued on behalf of the Behavioural Research Ethics Board and signed electronically by one of the following:

Dr. Peter Suedfeld, Chair
Dr. Jim Rupert, Associate Chair
Dr. Arminee Kazanjian, Associate Chair
Dr. M. Judith Lynam, Associate Chair
Dr. Laurie Ford, Associate Chair