KNOWLEDGE, ATTITUDES AND PERCEPTIONS OF BOTH THE COMMUNITY AND TRADITIONAL HEALERS WITH REGARD TO DIAGNOSIS AND TREATMENT OF MALARIA IN KWAZULU NATAL

BY

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This thesis is dedicated to my late (**olele**) mother Thokozile Dladla
for her spiritual (**idlozi lami**) support on day to day basis.

PREFACE

This study represents the original work of the author and has not been submitted in any form to another University. Where the author used work of other researchers it has been duly acknowledged in the text described in this thesis. This study was carried out at Ndumu (Section 2-10) in Ingwavuma Magisterial District, the Medical Research Council in Durban and the University of Natal under the supervision of Dr D. Scott (Geography Department, University of Natal and Dr B.L. Sharp (Medical Research Council) Malaria Research Programme, Durban).

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ABSTRACT

This study aimed at investigating the knowledge, perceptions and attitudes of both the community and traditional healers with regard to the diagnosis and treatment of malaria in KwaZulu Natal with special reference to Ndumu in the magisterial district of Ingwavuma. Ingwavuma is one of the two northern magisterial district of KwaZulu Natal Province which is regarded as the highest malaria risk district in South Africa as a whole.

The area has a warm temperature, 27-32°C, which is favourable for the development of the *Anopheles* mosquito. The factors predisposing the community to malaria infections were the socio-economic status of the area which is characterised by poverty, unemployment, poor housing and illiteracy, cross border migration, drug resistance, the agricultural development and irrigation scheme.

Efficient control measures like house spraying a residual insecticide to control malaria vector mosquitoes, passive surveillance and active case detection with definitive diagnosis and treatment in place to prevent and control the upsurge of the disease

The objectives of the study were to ascertain the knowledge, attitudes and perceptions of traditional healers in regard to malaria diagnosis and treatment and that of the community in relation to malaria treatment and diagnosis by traditional healers. The ultimate objective was to identify possible forms of collaboration between the traditional and the modern health services.

The study was conducted from sections 2 – 10 of Ndumu where the population was 13 047 and 1300 households. A random sample of 173 respondents from the community and 70 traditional healers were selected for interview.

Qualitative and quantitative methodologies were used in order to collect numerical and descriptive information. Data was collected using semi- structured questions and two sets were made: for traditional healers and the community.

The study showed that the community was well aware of the signs of malaria, but their knowledge was not supported by definitive testing and diagnosis of the condition. It came out that there are forms of health services available at grass root levels for example, self – help, where an individual tried on his own to combat he offending symptoms of the disease, family support systems, where family members especially the elder member gave support and assisted during the times of ill-health, the use of traditional healers, the malaria control camp, clinics and the hospital. The community supported the idea of collaboration between healers and the malaria control team and expressed their willingness to attend the services of a trained healer.

Traditional healers confirmed the fact that some community members utilize traditional healers services and also expressed their wish to see the two forms of health services working together to control malaria.

CHAPTER ONE

1.1. INTRODUCTION

Malaria is considered one of the most serious tropical diseases in many regions of the world. Malaria occurs in many parts of the tropics and subtropics in the North, Central and South America, Asia and Oceania (World Health Organization –WHO, 1996). Despite major control campaigns, the malaria situation is deteriorating.

Although malaria occurs in limited areas in South Africa, it remains endemic in the low altitudes areas (-1000 meters) of the Northern Province, Mpumalanga , as well as the North Eastern part of KwaZulu Natal (figure 1.1). This latter region is the highest malaria risk region in the country as a whole le Sueur, Ngxongo, Sharp et al, (1997). A ten year restrospective study of malaria in KwaZulu Natal indicated 78.6% of the malaria cases in South Africa, KwaZulu Natal Province. Though malaria is found throughout the northern-eastern part of the province, the highest risk malaria areas are Ingwavuma and Ubombo districts, respectively accounting for 62% and 13.9% of the malaria cases of the former KwaZulu areas (Ngxongo, 1993).

KwaZulu Natal is a subtropical region with a mean temperature of 27-32^0 C, an environment suitable for the development of *Anopheles* mosquitoes (le Sueur, 1991). Some studies have shown that malaria is seasonal in KwaZulu Natal. It is considered that the disease has the highest prevalence rate during the months of April, May and June, as a consequence of the January to April rainfall (Ngxongo, 1993; Sharp et al, 1998).

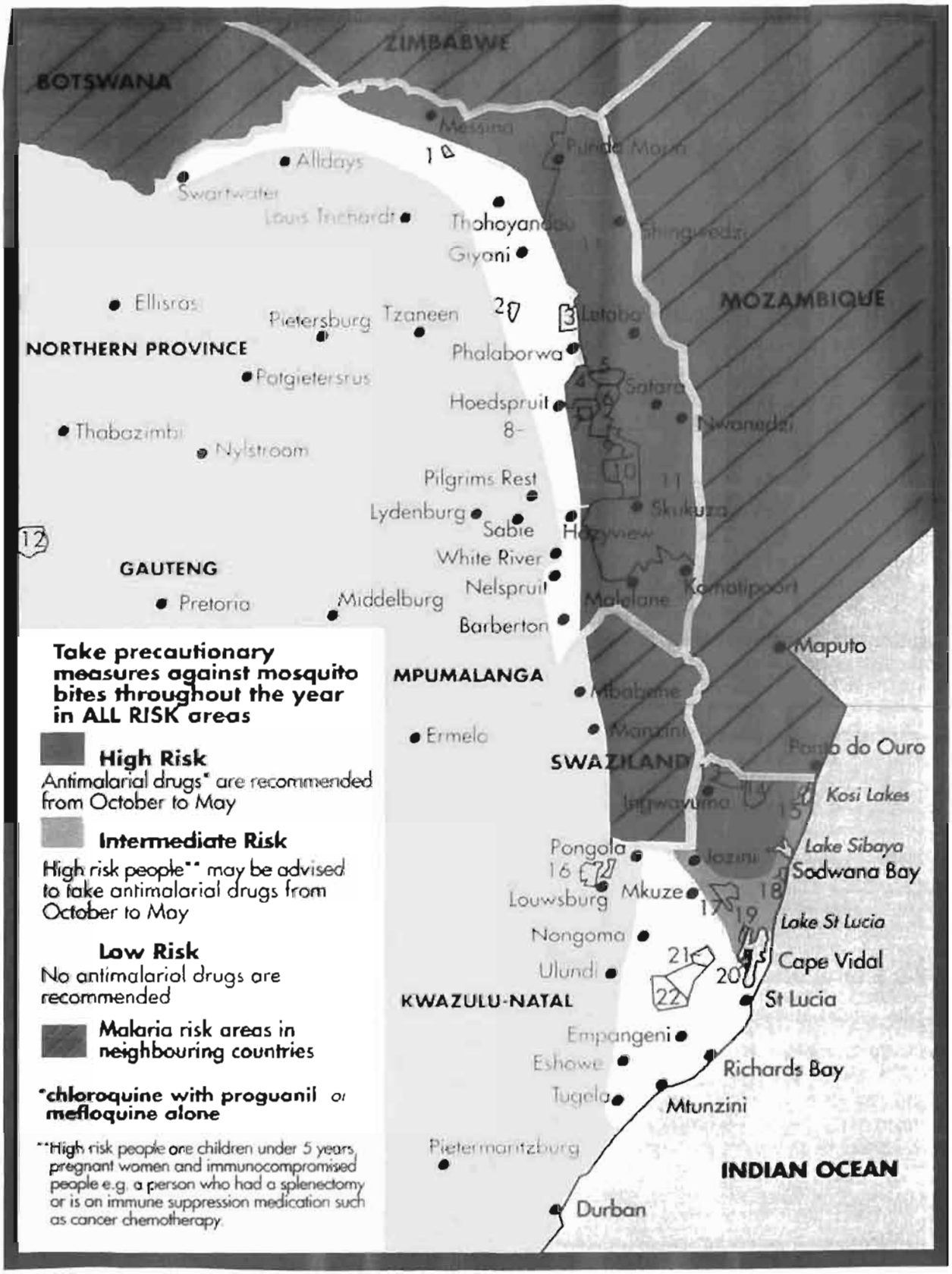

Figure 1.1 Shows the malaria risk areas in South Africa

Source : Department of Health, 1997

Historically, malaria is endemic in the province, although the Malaria Information Systems (MIS) of the Malaria Research Programme shows that the malaria control programme has put extensive control measures in place. the incidence of the disease has dramatically increased since 1993 (MIS). Cross-border migration compounds the problem .In 1981 a malaria bloodsmear was made from all people who came into the country through the Muzi Border post. and 16.1% of the total were malaria infected (Sharp et al.. 1988)

Malaria control throughout the province is regarded as effective based on the fact that large areas are now malaria free in comparison to the situation prior to control (le Sueur et al.. 1993). The following control measures are directed at the parasite and mosquito vector:

1. Prior to 1996. DDT was sprayed in all homes in the malaria area to control the mosquito vectors. The residual effect of DDT continued for several months to kill indoor resting mosquitoes. reducing transmission of the parasite. In 1994, 74,154 houses were treated with DDT (Sharp and le Sueur. 1996). The synthetic pyrethroid Deltamethrin® replaced the use of DDT for vector control in 1996.

2. Passive Surveillance: a comprehensive health service is provided by clinics and hospitals and definitive diagnosis and treatment of suspected malaria patients done.

3. Active surveillance: microscope based mass blood examination were done to identify the presence of the parasites in human blood and all diagnosed cases are treated (Sharp and le Sueur, 1996).

4. Prophylactic measures are recommended for tourists and high risk groups, i.e. children and pregnant mothers, to further augment malaria prevention strategies (Sharp and le Sueur, 1996. Department of Health, 1998).

Despite all these measures to control malaria, the situation gets worse every year (MRC, 1993). This is due to a number of constraints reducing the effectiveness of malaria control. The most important exacerbating fact of all is the development of chloroquine resistance by *Plasmodium*

falciparum. The latter is the main malaria parasite in the malaria areas of South Africa which includes Ingwavuma and Ubombo (Sharp et al, 1988). Historically, chloroquine had been the drug of choice against the four species of *Plasmodium*, but with the spread and the increase of resistance to first line treatment in KwaZulu Natal, treatment was changed to Sulphadoxine Pyrimethamine (Sharp et al. 1988).

The World Health Organisation Global Strategy (1993) called for collective efforts in regard to malaria control. WHO emphasized early diagnosis and treatment of malaria using universally accessible services, i.e. Primary Health Care. The latter reaches out and begins where people are and where problems arise (WHO, 1993). It encourages partnership between health providers and the consumers of the service. However, consumers participate when the service is accepted and affordable in terms of local culture, perceptions and technology. Where this partnership has progressed in health care, it has been done with the support of, among others, traditional healers. Modern medicine has penetrated the rural areas and proved to be effective but it is still regarded as a last resort when traditional efforts fail (Abdool Karim et al., 1994).

Traditional healers are accessible to individuals and families in the community, because they live where people live, and are often the main or the only source of health service. They are affordable because they are generally within walking distance and their initial fee is minimal. The balance is paid after the patient has been cured. They use a comprehensive approach in that they attend to the "whole" person and the "whole" family. A mixture of medicine can be taken by the whole family, for example "imbiza yempilo" (Gumede, 1990). The absence of clear recognition by the previous government of the role of traditional healers in Primary Health retarded progress towards this partnership between communities, traditional healers and western medicine. There were restrictions by law to the free practice of traditional healing in KwaZulu, according to the KwaZulu Act on the code of Zulu law 16, 1985. "Izinyanga zokwelapha", those skilled in healing, "izinyanga zemithi", herbalists and "ababelethisi" midwives could practice only if duly licensed. They had to pay a six rand license fee to be able to practice in the approved district (Gumede, 1990).

Generally, biomedical doctors had and still have negative attitudes in regard to traditional healing.

However, this has been changing. There have been formal discussions between the health professionals and traditional healers. In KwaZulu Natal, formal discussions have been held on such important issues as tuberculosis, sexually transmitted diseases, mental illness, home delivery, infertility, child care, and recently, AIDS. Such meetings should continue in order to develop a sound referral system that enables traditional healers and clinic nurses to improve communication and cooperation between traditional and modern health sectors in primary health care. A lack of communication between the two parties creates a poor working environment and tends to reinforce "secretive" practices (Nyamwaya, 1992)

Success in achieving control of malaria depends on a commitment at all levels in government. In other African countries such as Swaziland, Ghana, Congo, linking initiatives at national level have been started (Abdool Karim et al, 1994). Included in their area of practice is promotion of prevention and control of locally endemic diseases, recognition of symptoms of diseases like tuberculosis and malaria, referral of affected individuals for treatment and the use of readily available allopathic medicines like "antimalarial prophylaxis" (Hoff, 1992).

The present Government of national unity, in its National Health Plan, supports traditional healing, the registration and development of traditional healers in any geographical area (Health System Trust, 1997). In the same vein, the KwaZulu-Natal Health Department accepts the WHO strategy and has included traditional healers and traditional birth attendants in its operational structure of primary health care (Health Systems Trust and KZN Department of Health, 1996)

1.2 Problem statement

Despite these policy initiatives, there is still a conceived lack of a system which clearly defines roles related to malaria diagnosis, treatment and control by traditional healers in collaboration with western trained health workers. It appears however, that if malaria control is to succeed, the collaboration of four specific groups in society should be realized. These are "authorities responsible for providing health services, western-trained health care workers, traditional healers and the clientele" (Van Rensburg, Fourie and Pretorius, 1992). Therefore, there is a need for research work in order to determine first, possible sectors of collaboration and second, the best

way such an undertaking could be achieved. This study endeavours to make a contribution towards this objective

1.3 The aim of the study

a) To identify the role of traditional healers with regards to the diagnosis and treatment of malaria in KwaZulu-Natal with special reference to the Ndumu area at Ngwavuma.

1.4 Objectives of the study

a) To ascertain the knowledge, attitudes and perceptions of the community in relation to malaria diagnosis and treatment;
b) To determine the level of knowledge, attitudes and perceptions of traditional healers in regard to malaria diagnosis and treatment;
c) To identify possible forms of collaboration between traditional and modern health services regarding the diagnosis, treatment and control of malaria.

1.5 Organization of the Thesis

This study is presented in five chapters Chapter two provides necessary background information on the study area. Chapter three is a review of relevant research work on the topic of traditional and modern medical systems, past and present constraints and opportunities for collaboration. Chapter four outlines and justifies the methods used in the study. Chapters five and six constitute the core of the study. They present the findings from the community survey and from the traditional healers survey respectively. Chapter seven includes conclusions and recommendations, which emerged from the study. The final inclusions are the list of references used and the appendices.

CHAPTER TWO
BACKGROUND INFORMATION ON THE STUDY

2.1. Introduction

This chapter provides basic information needed to set the context in which this study took place. It covers the study area's geographical location and ecological conditions; the population and its socio-economic status, factors contributing to malaria endemicity and existing control measures.

2.2. Geographical location and ecological conditions

The setting for this study was the Ndumu area (Sections 2-10) in the magisterial district of Ingwavuma in the north east of the Province of KwaZulu Natal (figure 2.1). Ingwavuma district borders Mozambique in the north, the Indian Ocean in the east, the magisterial district of Ubombo in the south and the Lebombo mountain chain in the west (le Sueur *et al.*, 1997).

Ecological patterns are those of a sub-tropical region, with a thermal amplitude of 27-37° C. This is a warm climate characteristic of an environment suitable for the development of *Anopheles* mosquitoes (le Sueur, 1991; le Sueur and Sharp, 1988). The area is watered by two main rivers, the Ingwavuma and Usuthu. The highest rainfall (in the order 700-1000 mm per annum) occurs between January and April and the lowest between July and December (Sharp *et al.*, 1988; Ngxongo, 1993). The area of Ndumu as such covers 186.21 km².

2.3. Population data

Table 2.1 shows total population density and population density in sections 2-10 of Ndumu area where the study was conducted. At the time of this study (1997), the community of the Ndumu (Sections 2-10) area consisted of a total population of 13,047 people, distributed in ±1300 households (MRC, 1997). The average population number per homestead was twelve. The area covers 186.21 km² and the average population density is 70.06 inhabitants /km² (MRC, 1997). The population is Zulu/Tonga/Swazi speaking. The communities live in a dispersed fashion, i.e. patriarchal homesteads as opposed to clustered villages (le Sueur *at al.*, 1997).

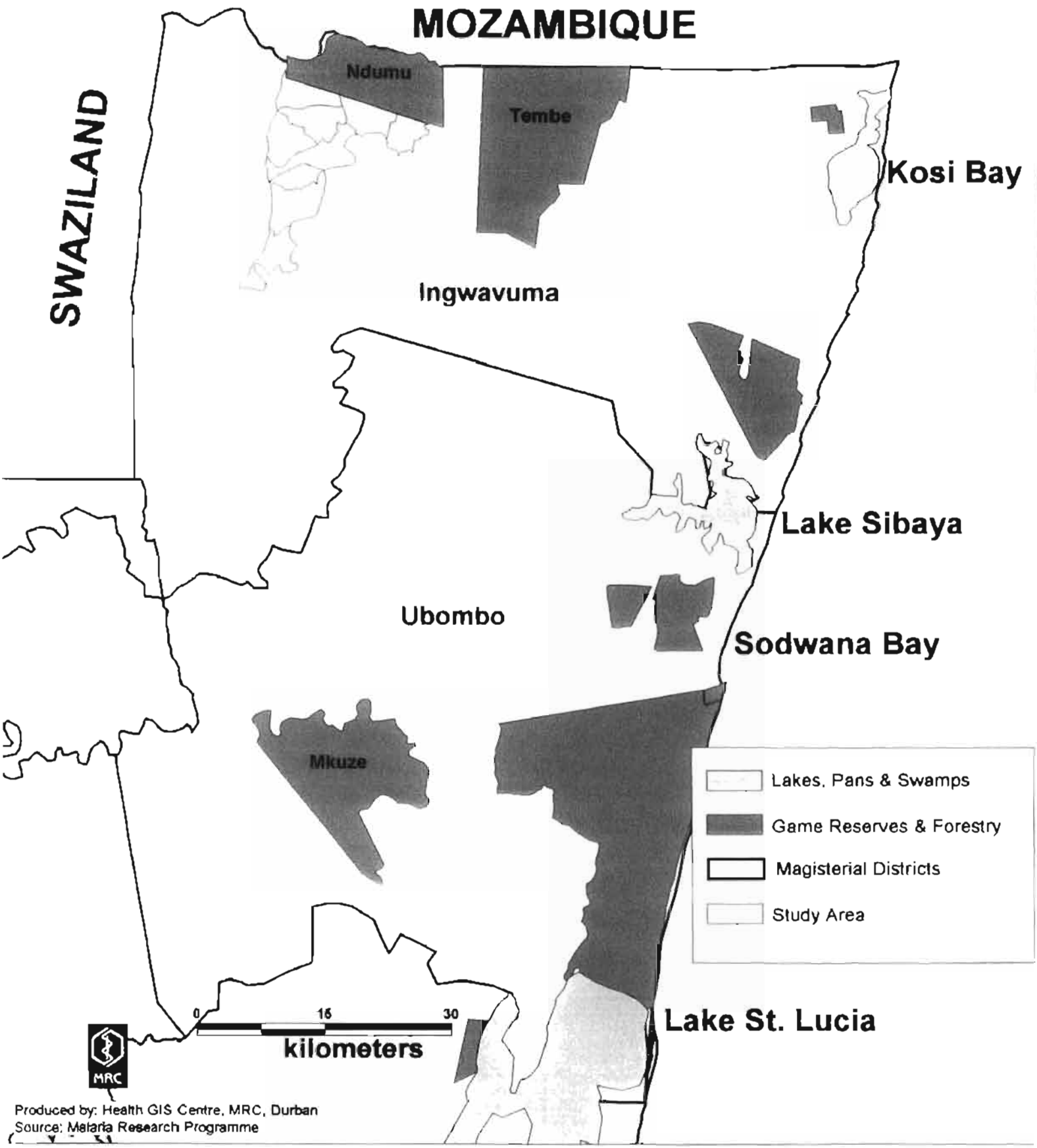

Figure 2.1 Shows Ndumu area where the study was conducted.

Table 2.1

Total population and population density per section, Ndumu, 1996

Section Codes	Area	Section	Pop* 96	Area in km²	Density** Inhab/km²
4802	NDUMU	2	2,652	15.13	175.28
4803	NDUMU	3	2,769	19.44	142.43
4804	NDUMU	4	533	19.15	27.83
4805	NDUMU	5	1,452	22.33	65.02
4806	NDUMU	6	1,033	22.11	46.72
4807	NDUMU	7	1,573	26.33	59.74
4808	NDUMU	8	642	11.57	55.48
4809	NDUMU	9	948	27.94	33.92
4820	NDUMU	10	907	22.21	40.83

Source: **1996 Population census, Statistics South Africa ; * Population assigned to sections from Enumerator Areas, based on proportion of EA that falls within section; ** Calculated by the author on the basis of data from the MRC, 1999.**

2.4. Socio-economic and living conditions

2.4.1 The legacy of past policies

In socio-economic terms, the area of Ndumu, including the district of Ingwavuma as a whole, is one of the least developed in the province. Ingwavuma was part of the former KwaZulu homeland. Few resources were allocated to the social and economic development of homelands. Homelands in general were problem populations faced with severe overpopulation, unemployment, poverty, illiteracy, low wages, housing shortages, squatting, overcrowding, inadequate sanitation, famine and all the resultant social ills (van Rensburg, Fourie, and Pretorius, 1992). All these conditions resulted into making homelands "lasting reservoirs of poor health and disease - principally the typical disease of poverty and poor living conditions". In terms of health,

the central Government only gave the surplus of funds to homelands. In case of a lack of surplus, simply no funds were allocated to the development of health services in homelands. Ingwavuma, which was one of the remotest area of KwaZulu, remained largely deprived of the basic services. (van Rensburg et al, 1992).

2.4.2 Livelihood

The livelihood of people is derived mainly from subsistence agricultural farming and extensive herding, pensions and remittances. Staple crops include maize (by far the most important crop), sweet-potatoes and ground nuts. Other crops include cassava, sorghum, millet, pigeon peas, pumpkins, melons, gourds, beans, cow-peas, tomatoes, and cabbages. Generally however, the soil is sandy and infertile and the crop yields are very low (Felgate, 1982). People are unable to support themselves on the food they grow. Consequently, they rely extensively on collecting and to this end, they developed a wide knowledge of the flora in the area (Felgate, 1982).

2.4.3 Housing

Housing consists of mainly traditional reed and mud huts covered by grass roofs and without windows. On average houses have a detachable doors that are removed during the day for ventilation and better lighting and replaced in the evening when it is time to go to bed.

Plate 2.1 Shows a traditional healer resting on a detached door of a traditional hut

The homesteads consist of a number of huts well secluded in the bush or forest out of the sight of other neighbouring homesteads and strangers.

Plate 2.2 Shows a hut secluded in the bush out of sight of neighbouring homesteads and strangers

Felgate (1982), suggested that cultural reasons relate to this hiding, the most important of all being to avoid witchcraft. Homesteads house a man, his wife(s) and children and perhaps some relatives. As a minimum, all housing must provide protection from weather, a durable structure, storm-water drainage, electricity and access to clean water (de Haan, 1991.) None of the above exist at Ndumu. Because of lack of electricity, the source of energy for cooking and warmth is generated from fire wood. Cooking is done mostly outside or in one of the huts which is usually old and dilapidated.

It is important to describe their attire in relation to their protection against mosquito bite.

The researcher noticed that women often have the upper trunk half naked and a small piece of cloth barely covering breasts largely because of high temperature during the day.

Plate 2.3 Shows traditional attire "isikapulana"

Children were either naked or half naked and men were fully covered. The Department of Health. (1996) says, to prevent mosquito bites is the "most important and effective way" to prevent malaria. It should be done by, if possible, remaining in doors between dusk and dawn, wearing long sleeved clothing at night, stay in well constructed and well maintained buildings. It is impossible especially for women who have to wake up before dawn to go and cultivate land "**emadotsheni**" riverbed or marshy area for the family's meal and cook in the open at night maybe with her children playing in the vicinity. Health risks from this type of living condition appear to be heavy in terms of exposure to diseases and to malaria in particular. This seems to support Clarke's argument that cultural influences, especially on the definition of health and illness, determine what kind of health problems are considered worthy of attention and what conditions are likely to be disregarded (Clarke, Appleton and Stamford, 1996). Thus a behaviour that might be considered by an outsider as reflecting a lack of awareness to malaria exposure in terms of proper housing for protection against malaria, might just suggest the way the group perceives malaria. This disease seems as if it was part of what Conco (1972) terms as "common or minor every

day's afflictions", or "**umkhuhlane** syndromes", not serious enough to create an extraordinary awareness or a change of behaviour in the community.

2.4 Transport, water and sanitation

Transport infrastructure is inadequate. The district has only one tarred arterial road and the rest are gravel roads which hinder the availability of such conveniences as buses or combis/taxis. The members of the community have to travel considerable distances to get water from remote wells or rivers. Potable water facilities such as taps are not available. Sanitation facilities are non-existent or very rudimentary, with potential risk of water contamination and subsequent communicable diseases.

2.5 Education

Many children at school age do not get the opportunity to go to school as indicated by the latest data on school enrolment in Ndumu. In 1996, around 65% of the population in Ndumu had no level of schooling. Only 17.1% and 16.6% had education level between grade 1 and grade 5 and grade 6 and 11 respectively. A slight 1.6% had a matric level, whereas, only close to 0.2% had a higher than matric level education. (Refer to **Table 2.2**)

Table 2.2 below shows the levels of education by Enumerator Areas (EAs), in Ndumu

EAs	No schooling	Grade1 - Grade5	Grade6- Grade11	Matric only	Higher than matric
5500035	535	139	151	14	0
5500043	480	199	214	52	5
5500042	382	155	170	26	17
5500041	391	98	140	12	2
5500009	471	70	70	1	0
5500032	574	138	84	12	0
5500029	657	88	109	0	0
5500192	485	92	99	13	3
5500210	440	42	48	2	0
5500033	439	216	76	11	0
5500167	239	162	69	1	0
5500031	721	134	99	9	0
5500030	443	120	112	11	0
5500037	434	97	103	13	0
5500036	219	166	170	11	3
5500034	534	50	67	5	0
Total	**7444**	**1959**	**1781**	**193**	**30**
% of total Population*	**65.2**	**17.1**	**16.6**	**1.6**	**0.2**

***Source*: Space-time Research Web page: www.str.com.au from Statistics South Africa, Census 96. Calculated by the author on the basis of available figures.**

Educational infrastructures such as schools are very few and they are generally out of reach of the majority of the children (**Table 2.2**). These children therefore, stay at home and get associated with the activities of their parents. Those who manage to obtain a certain level of education move out of the area, to cities, for employment opportunities. This is an economic necessity since very little income generating activities exist in the area. This is reflected by the high level of unemployment in all the sections of Ndumu.

2.6 Employment and unemployment

The most recent available data on employment in Ndumu indicated that compared to the whole population in the area, only 4.4% were employed (as calculated by the author on the basis of available figures in Table 2 3). Those who were unemployed but said they were looking for work count for 9% of the population The rest were not working for different reasons. It is worthy to note that almost 49% of non workers were still minors (under 15 years old). Considering that the majority of those minors were not at school, it is hard to imagine the level of unemployment decreasing in the future, unless drastic measures are taken to rectify the situation. In the meanwhile, approximately 95% of the population in Ndumu remain unemployed (**Table 2.3**).

This means that the far greater majority do not count on any formal income, with obvious consequences in terms of living conditions. To find employment, the local work force has to move into cities. For the community, this constitutes a "brain-drain" which deprives it of its potential for social and economic progress. Moreover, this "brain-drain" has very low returns as a source of income. As **Table 2.4** shows, in 1996, of those who worked, 1.57 % earned less than R 200 per year. Those who earned between R 200 and R 500 per year constituted 6.88%, whereas 2.97% earned between R 500 and R 1500. Earnings above R 1500 per year were almost non- existent.

These low levels of income seem to suggest that wage earners from Ndumu are engaged in low standard activities. The fact that the majority are uneducated or have very low levels of education might account for this situation.

Table 2.3 : Levels of employment and unemployment by Enumerator Areas (EA's) in Ndumu,1996

EA's	A	B	C	D	E	F	G	H	I	J	K	L	Total
5500035	19	138	72	80	131	41	1	4	55	6	483	0	1030
5500043	85	41	0	2	186	51	0	0	212	0	524	00	1101
5500042	55	146	45	4	113	35	2	0	76	0	428	0	904
5500041	46	64	36	94	102	28	3	10	20	0	362	0	765
5500009	5	89	137	9	82	23	0	3	17	9	369	0	743
5500032	35	75	9	162	87	41	4	8	40	1	567	0	1029
5500029	72	72	85	159	75	43	1	2	38	0	530	0	1077
5500192	66	55	40	106	105	83	2	16	27	0	403	0	903
5500210	6	4	162	6	60	36	2	4	18	0	336	0	634
5500033	38	52	15	156	88	52	1	9	35	0	454	0	900
5500167	6	75	9	46	61	42	5	17	28	0	287	0	576
5500031	73	30	106	142	136	57	8	13	22	0	570	0	1157
5500030	20	72	24	133	86	42	8	9	67	0	364	0	825
5500037	68	40	94	37	63	35	0	0	74	0	379	0	790
5500036	29	60	10	98	75	44	2	2	3	0	387	0	710
5500034	3	251	0	0	69	32	10	0	40	0	383	0	788
Total	626	1264	844	1234	1519	685	49	97	772	16	6826	0	13932
% Total*	4.4	9.0	6.0	8.8	10.9	4.9	0.3	0.7	5.5	0.1	48.9	0	

Key:

A: Employed; B: Unemployed, looking for work; C: Not working - not looking for work; D: Not working - housewife/home-maker; E: Not working - scholar/full time student; F: Not working - pensioner/retired person; G: Not working - disabled person; H. Not working - not wishing to work; I. Not working - none of the above; J: Unspecified; K: NA: Aged <15; L: NA: Institution.

Source: **Space-Time Research Web page: www.str.com.au from Statistics South Africa, Census 96. * Calculated by author on the basis of figures provide**

Table 2.4 : Income levels in Rands by Enumerator Areas in Ndumu,1996

EA's	None	1-200	201-500	501-1000	1001-1500	1501-2500	2501-3500	3501-4500	4500-6000
5500035	365	0	53	15	13	1	0	0	0
5500043	932	15	57	16	23	13	3	7	4
5500042	820	9	26	10	11	18	3	0	4
5500041	632	1	50	14	5	6	1	0	1
5500009	703	0	30	7	0	0	0	0	0
5500032	939	1	43	17	7	4	0	1	2
5500029	838	66	103	28	38	4	0	0	0
5500192	771	22	74	32	4	0	0	0	0
5500210	592	3	35	3	0	0	0	0	0
5500033	811	8	53	6	12	9	1	0	0
5500167	521	2	39	10	2	0	0	0	0
5500031	1023	13	74	24	15	3	1	3	0
5500030	729	4	26	8	7	0	0	0	1
5500037	671	36	47	10	0	1	0	0	0
5500036	635	3	58	3	6	4	1	0	0
5500034	718	1	37	0	3	0	0	0	0
Total	**11700**	**184**	**805**	**203**	**146**	**63**	**10**	**11**	**12**
% Total*	**100**	**1.57**	**6.88**	**1.73**	**1.24**	**0.54**	**0.08**	**0.09**	**0.10**

***Source*: Space Time Research Web page: www.str.com.au from Statistics of South Africa, Census 96. * Calculated by author, on the basis of available data.**

Yet cash must be found in order to buy clothing, supplement food supply during lean periods of the year (Felgate, 1982) and pay for health care related costs. In terms of health, this study suggests that people opted for cost-effective solutions, namely self-help and traditional healing.

2.7 Effects on people's health status

These different aspects of socio-economic life in Ndumu certainly must have their effects on the health status of the people. Such factors as inadequate housing, lack of potable water facilities, rudimental sanitation, natural geographical isolation (Felgate, 1982), lack of roads and transport, and poverty in general seem to constitute what Mellish (1982) terms as the "multiple causation" of disease which involves the interaction of the host (man), agent (female *Anopheles* mosquito) and social environment composed of knowledge, attitudes and perception.

This might not sound obvious in the case of malaria, since its cause is a parasite, *Plasmodium*, transmitted by a bite of an infected female *Anopheles* mosquito and a physical environment favourable to its development. However, to a certain extent, the socio-economic conditions mentioned contribute to Ndumu community's ill health and to malaria endemicity in the area. Ignorance due to poor education also, as Mellish (1982) observes, makes poor communities lag behind those which are better educated. They are made less aware of health problems and thus less ready to seek timely aid.

3. Malaria status in Ndumu

3.1 Malaria causes and symptoms

"Umalaleveva" is a borrowed name from the English word malaria fever which literary means "you sleep shaking". The names used by the community when referring to mosquitos are "Udlonzane, insuna and umndozolwane" (Verbal discussion with Professor S Ngubane Department of African languages, University of Natal 09/2000).

It is considered that in sub-Saharan Africa, over 90% of human malaria infections are due to the parasite *Plasmodium falciparum*. The rest of the infections are due to *P. vivax*, *P. ovale* and *P. malariae* (Department of Health, 1996). *Plasmodium falciparum* infections might be severe and complicated, depending on possible delays in diagnosis and treatment.

3.1.1 Uncomplicated malaria

a. Symptoms

Fever is common in most cases. However, it might be absent in some cases. Other symptoms might be: rigours, headache, sweating, tiredness, myalgia (muscular pain in back and limbs), abdominal pain and diarrhoea, loss of appetite, orthostatic hypertension, nausea, slight jaundice, cough, enlarged liver and spleen (sometimes not palpable) (Department of Health, 1996).

b. Treatment

Historically chloroquine has been the favoured drug for treatment of malaria (WHO, 1983, Department of Health, 1996). It is effective and well tolerated. However, the use of chloroquine alone is limited, because of widespread resistance (WHO, 1993). First line treatment in KwaZulu-Natal has as a result been the use of Sulfadoxine-Pyrimethamine since 1988 with quinine reserved as second line treatment.

3.1.2 Complicated malaria

Severe malaria is understood as a parasitaemia of higher than 5%, a haemoglobin of 6 g/dl, spontaneous hypoglycaemia, or major organ disfunction - particularly cerebral malaria (Department of Health, 1996).

a. Symptoms

Complicated cases of malaria might present impaired consciousness (but rousable), extreme weakness and jaundice. Other complications might be: cerebral malaria, defined as unrousable coma not related to any other cause, generalised seizures, hyperpyrexia, renal failure, hypoglycaemia, fluid, electrolyte and acid-base disturbance, disseminated intra-vascular coagulation, pulmonary oedema and adult respiratory distress syndrome, circulatory collapse and shock, hyper-parasitaemia, malarial haemoglobinuria, hepatic impairment, secondary bacterial infections and normocytic anaemia. These symptoms might appear alone or combined in a patient. Children and pregnant women are high risk patients (Department of Health, 1996).

b. Treatment

For severe and complicated malaria, quinine plus either doxycycline or Sulfadoxine-Pyrimethamine are recommended. If no response is obtained, Halofantrine, Mefloquine or Artemisin may be given (Department of Health, 1996).

3.2 Malaria prevalence

The magisterial district of Ingwavuma is divided into ten malaria areas, of which one is Ndumu Ndumu is in turn divided in thirteen sections (et al Sueur, 1997). As stated earlier the study was conducted in sections 2-10. The area shares the common pattern of malaria epidemiology in the district. As indicated by the results of a ten years retrospective study (1981-1991), the district of Ingwavuma together with its southern neighbouring district of Ubombo, respectively account for 62% and 13% of cases reported in the former KwaZulu area (Ngxongo, 1993). It is believed that the two districts constitute the highest malaria infected area in the province (Ngxongo, 1993). The latest statistics on malaria status in the province of KwaZulu Natal, indicate that Ndumu had the steadiest increase in the province since 1993/1994 as shown (**Table 2.5**). Malaria statistics show a high case incidence in different sections of Ndumu (**Figure 2.2**). Ndumu as a whole had also the highest total cases of malaria in 1998/1999 (**Figure 2.3**).

It has been argued that the pattern of malaria epidemiology in the area is seasonal, with the highest disease prevalence rate in April, May and June, as a consequence of the January to April rainfalls. Over a ten year period (1976-1985),only 19.3% of cases occurred between July and December (Sharp et al, 1988).In terms of annual season of malaria. **figure 2.2 and table 2.5** suggests that for the whole province of KwaZulu Natal, total cases of malaria have been steadily increasing since 1995/1996. For 1998/1999 more than 20.000 cases were reported (MRC. November, 1999).

Table 2.5

Total Malaria cases by area and by season in Ingwavuma District, Kwazulu Natal

Areas	1997/1998	1996/1997	1995/1996	1994/1995	1993/1994
Kosi Bay	179	179	103	52	19
Kwa-mshudu	303	303	311	87	65
Kwa-zibi	72	72	47	19	10
Lake-sibaya	104	104	63	26	14
Mangwanga	449	449	193	97	97
Makanis Drift	1782	1782	1029	730	1062
Mlambo-ngwenya	565	565	192	25	32
Mamfene	349	349	370	175	97
Manaba	52	52	27	5	2
Manguzi	228	228	181	84	101
Mbazwana	150	150	16	3	1
Mphakathini	96	96	44	7	10
Mseleni	227	227	77	10	5
Muzi	238	238	294	54	33
Ndumu	2748	2748	1958	595	1261
Ngutshana	201	201	190	32	17
Ntshongwe	31	31	27	4	3
Ophansi	420	420	269	33	31
Othobothini	286	286	222	74	43
Shemula	984	984	560	162	269
Siltangwana	197	197	900	11	32
Siphondweni	98	98	233	17	22
Tetepan	467	467	569	261	373
Ubanganek	12	11	10	7	2
Nibela	72	27	72	3	5

Source: **MRC, National Malaria Research Programme, 1999**

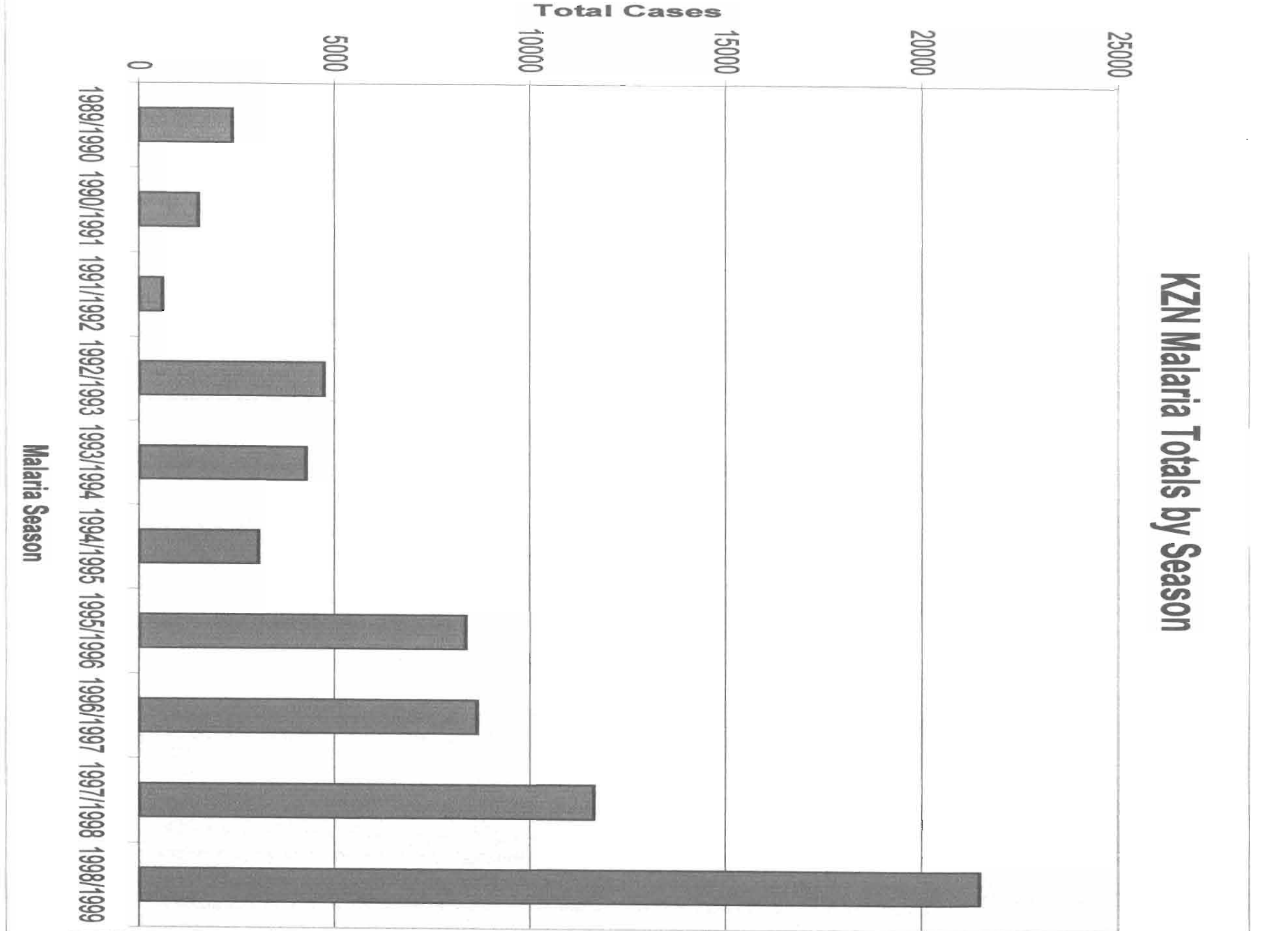

Figure 2.2 KZN Totals by season

Source **: MRC, 1999**

Figure 2.3 Malaria cases by Area, Ingwavuma District
***Source* : MRC 1999**

3.3 Factors affecting Malaria endemicity

3.3.1 Cross border migration

Population migration occurs as a result of factors such as family ties, war and famine, job and health facility seeking behaviours. It is considered that migration facilitates the transmission of disease between countries (Sharp and le Sueur . 1996). Population migrations across the border from Mozambique are believed to be an important factor in the endemicity of malaria in the district (Sharp *et al.*, 1988, Ngxongo, 1993). Sharp *et al.*, (1988) reported a 16.1% positivity rate among Mozambicans entering KwaZulu through the border post at Muzi. In his study, Ngxongo (1993) found that cases imported from Mozambique constituted 14% of the total number of cases recorded from KwaZulu. The districts of Ingwavuma in which Ndumu is located and Ubombo accounted for the majority of imported cases (88%) with more than half of the cases (69%) from Ingwavuma district alone.

3.3.2 Drug resistance

Beside their impact on the increase of the malaria prevalence rate in the area, population migrations are also believed to be responsible for the introduction of chloroquine drug resistant *Plasmodium falciparum*. It is suggested that the drug resistance problem in KwaZulu Natal was accelerated by the introduction of the resistant strains of the parasite from Mozambique. Chloroquine resistant *Plasmodium falciparum* was first observed in Mozambique in 1981. By 1985 a high degree of resistance at the RII and RIII levels was found in Maputo (Herbst, Taylor and Joubert 1985)[1]. From Mozambique, these resistant strains are believed to have been imported into KwaZulu Natal. A study by Freese *et al.* (1988) using an *in vitro* test confirmed the presence of chloroquine resistant *Plasmodium falciparum* in KwaZulu. Sharp (1990) suggested that the chloroquine resistance problem has been increasing and was having an exacerbating effect on the annual incidence of malaria since 1985. Ngxongo (1993) argued that in KwaZulu-Natal, the cross-

1. The WHO (1973) distinguishes three levels of drug resistance: RI- is the first level of drug resistance. It is characterized by the disappearance of malaria parasites in the blood circulation after the administration of curative treatment. The parasite reappears after a period of about seven days. RII -level is characterized by the reduction of the number of parasites in the blood circulation after treatment. However, parasites do not disappear from the blood circulation. RIII-level reflects a high degree of resistance with parasite numbers staying high in spite of treatment.

border migratory population was responsible for creating a reservoir of infection in the Ingwavuma district. This in turn led to increased transmission.

3.3.3 Agricultural development and irrigation schemes

Other factors contributing to the high malaria prevalence in Ingwavuma district include the presence of *Anopheles arabiensis* breeding sites along the Ingwavuma and Usuthu rivers (Le Sueur and Sharp 1988). There are further negative public health effects associated with local irrigation schemes and agricultural development projects (Sharp et al.,1996). Agricultural development projects are notorious for extending vector breeding sites in Africa (Brady, 1991).

4. Existing malaria control measures

Different activities are carried out in the area by the malaria control programme. These include passive and active surveillance activities which have given birth to a malaria control database project by the Medical Research Council and prophylactic measures.

4.1 Vector control programmes

The malaria control programme in Ingwavuma as in other magisterial districts of KwaZulu Natal, is based on house-spraying with a residual insecticide. Historically mainly DDT has been used (Sharp and le Sueur, 1996) and DDT was sprayed in all homes in the malaria areas to control the malaria vector mosquitoes. The residual effect of DDT persist for several months, killing indoor resting mosquitoes and thereby reducing transmission of the parasite. In 1996 South Africa changed from the use of DDT to a biodegradable synthetic pyrethroid Deltamethrin for house spraying.

4.2 Active surveillance

Early diagnosis and prompt treatment are fundamental to malaria control (WHO, 1993). Definitive diagnosis of infection in malaria control is currently based on microscopic examinations of Giemsa-stained thick blood smears (Sharp and le Sueur, 1996). Mass blood examination is done to identify the presence of the parasite in the human blood and cases diagnosed as infected are treated by visiting malaria teams and surrounding clinics and more recently diagnosed by a rapid diagnostic test. The aim of this study is to establish the role played by traditional healers with regard to treatment of people infected by malaria.

4.3 Prophylactic measures

Beside passive and active surveillance activities, prophylactic measures are recommended for tourists and high risk groups (children and pregnant mothers) in order to further enhance malaria prevention strategies (Sharp *et al.*, 1988. Sharp and le Sueur, 1996).

4.4 A malaria control database

An initiative on the use of malaria control data to build a spatial rural information system has been piloted in the two northern magisterial district (Ingwavuma and Ubombo) of KwaZulu-Natal. As explained by le Sueur *et al.* (1997), the implementation of malaria control has led to each magisterial district being divided into approximately 20 malaria areas. These are in turn sub-divided into ten sections. A team of 8-12 personnel is responsible for malaria control activities in two areas. Within a section, each house is numbered by means of a malaria green card stored under the eaves of the roof. This card also records visits by surveillance personnel who take thick smears for parasite detection. It also keeps the records of the personnel responsible for the annual application of residual insecticide.

From data collected annually from each house, a database was built for each homestead. It is printed every second year and upgraded by control staff for the annual spraying operations. Additional information is brought in with each upgrade. The aim of this process is to establish a Geographical Information System which could be beneficial to all aspects of development (Sharp and le Sueur, 1996; le Sueur *et al*, 1997). Some of the maps produced by this project were used in this research project and are duly acknowledged.

4.5 Health care facilities

Health care facilities in the Ndumu area are scarce. At the time of this study, only one clinic, Ndumu, was operational in the area. The average distance a person has to walk to reach the clinic is 10 km. Towards the end of 1997 two more clinics were commissioned. They both functioned on a forthnigth basis. **Figure 2.4** displays buffers showing 2 km distances from Ndumu clinic to sections 2 – 10.

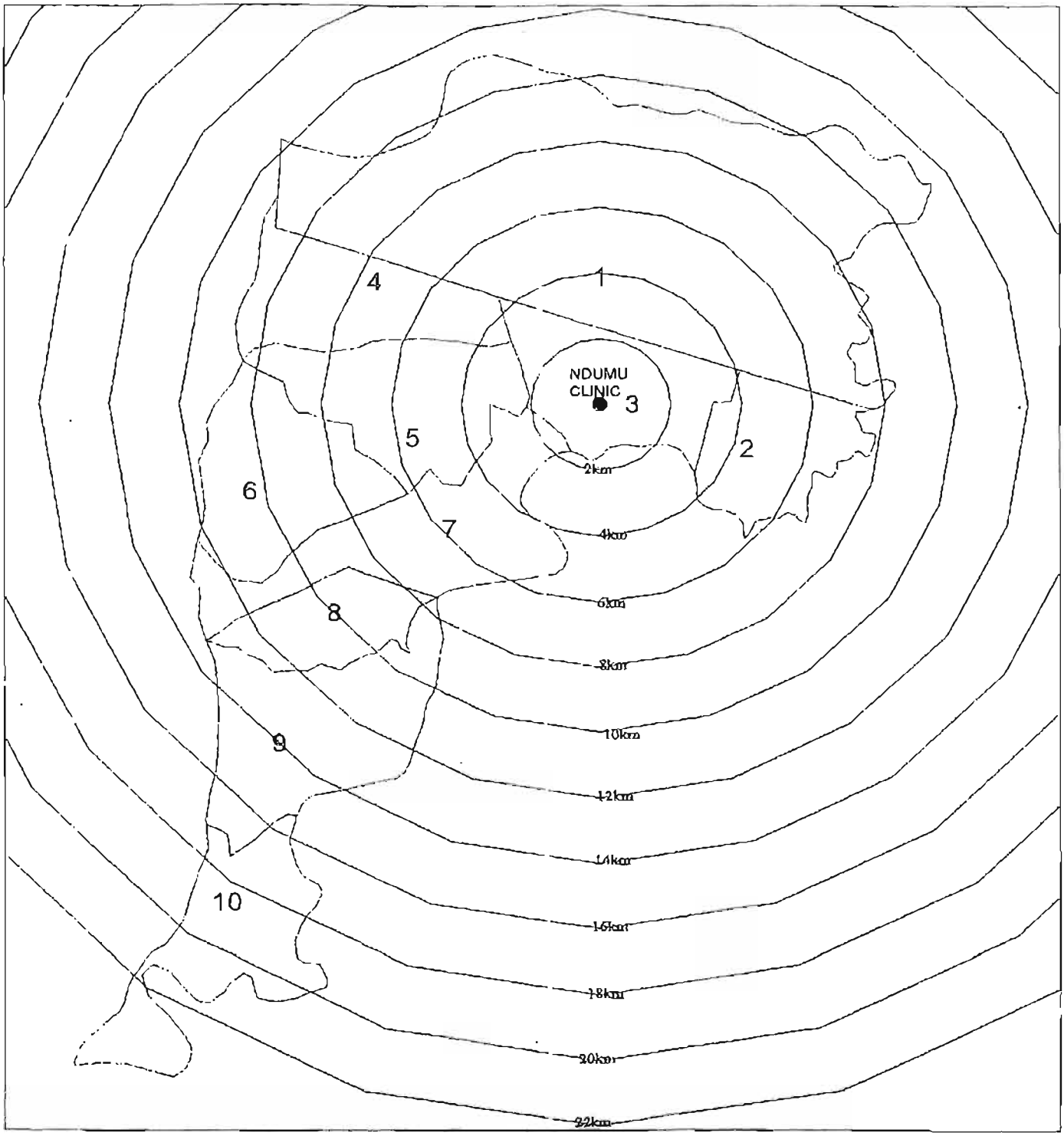

Figure 2.4 Buffers showing 2km distances from Ndumu clinic to Sections 2 -10

Source **: MRC, 1999**

In this context, the alternative to biomedical health care, was the local traditional healer. (**Figure 2.4** shows location of traditional healers in sections 2 - 10). Beside availability and closeness however, some other factors render them attractive to the community. They have the same living conditions, speak the same language, know clients by name, share the same concerns with the local community and are believed to have the power to connect them with their dead relatives, **amadlozi, abalele** i.e ancestors. They also share the community's world view, their culture and know their patient's health history better than the clinic biomedical practitioner.

In terms of payment, patients are not stressed because alternative forms of payment are possible (crops, cattle, chicken goats etc.). Moreover payment does not have to be before treatment. All these reasons position the traditional healer as a key potential partner in the process of delivery of primary health care in the area.(Gumede,1990;Nyamwaya, 1992)

5. Conclusion

This chapter's aim was to provide background information needed for the understanding of the broader context in which the present study took place. The data on the study area's geographical location pointed to the natural exposure to an environment favourable to malaria endemicity. Socio-economic data revealed an historically marginalised area, still faced with huge challenges of poverty, inadequate satisfaction of basic needs, with heavy consequences on the community's health status. Malaria status in Ndumu was described as the highest in the province of KwaZulu Natal and occurring with seasonal patterns. Other factors of malaria endemicity in the area were identified and their respective impacts assessed. Finally, existing control measures were described.

It was noted that despite large-scale epidemiological and prophylactic measures applied in Ndumu/Ingwavuma as part of the malaria control program in the province, the area remains the most malaria infected in KwaZulu Natal and in South Africa as a whole (le Sueur *et al.*, 1993) The above background information suggests a clear need for all human resources and knowledge to get together in a common effort for effective anti-malaria action in the area. Biomedical initiatives alone would be overwhelmed by the task. Consequently, there is an urgent necessity to explore possible formal forms of co-operation and partnership between all health care providers.

An important aspect of this process may be that the modern Primary Health Care system should join hands with the local traditional healers already operating, respected, affordable and accepted in the community. However, for an informed decision and appropriate action, research is needed in order to establish the actual attitudes, perceptions and knowledge of both traditional healers and the local community, with regard to malaria diagnosis and treatment. This is the rationale of the presented research.

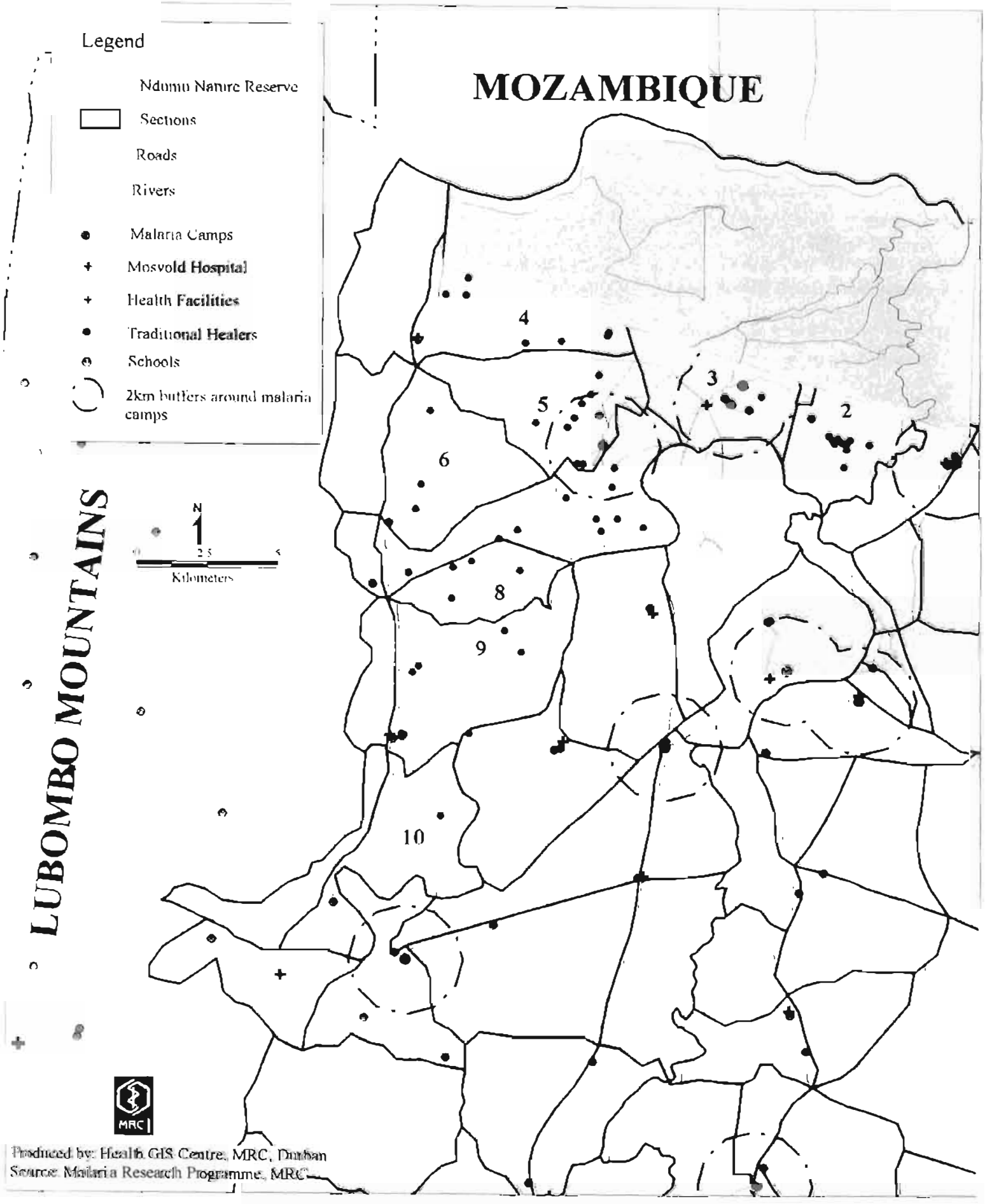

Figure 2.4 Shows the study area of sections 2-10, Traditional healers, health facilities and Malaria Control Camps, Ingwavuma District. *Source* **MRC Durban, 1999**

CHAPTER THREE
METHODOLOGY

3.1 Introduction

The choice of methodology is guided by the objectives that a certain study intends to achieve. A careful selection of a methodology is of utmost importance, as it is likely to determine the outcome of the research (Yin, 1994). This chapter outlines and justifies the methodological tools used during this research. Three main phases are considered in chronological order: study design; data collection and data recording, presentation and analysis. Brief mention is also made of the way the findings of the study are reported.

3.2 Study design

This study was an integral part of a Medical Research Council research project about "the cost effectiveness and efficacy of enhanced service and community involvement in the diagnosis and treatment of malaria at the clinic level". The specific objective assigned to this study was to assess the attitudes, perceptions and knowledge of both the community and the traditional healers with regard to malaria diagnosis and treatment. It was intended that the data obtained would outline the possibility of traditional healers serving as sentinel points for case detection and treatment in a more formalised manner.

This study and the nature of its objectives needed appropriate methodology. On one hand, there was a need to collect quantifiable data from a representative sample of the community and the traditional healers in regard to a number of variables. Descriptive results had to be produced and analysed in order to identify commonly held perceptions, attitudes and levels of knowledge about malaria diagnosis and treatment. On the other hand, however, it had to be kept in mind that the study concerned a particular community, culturally specific and therefore having its own unique experience of realities of health and illness. Consequently, statistical data needed to be supplemented by non- quantifiable or qualitative data concerning the customs, beliefs, taboos etc. These are believed to be underlying realities which explain a group's health and illness-related behaviours. Thus, in this context, the study's methodology had to be both quantitative and qualitative.

3.2.1 Quantitative and qualitative design

Quantitative methodologies are geared towards the collection of numerical (or quantifiable) data. This data is then analysed and interpreted in a way which generally provides standardised information to explain social phenomena and to create generalisations in order to predict the outcomes of similar situations (Yin 1984).

Qualitative methodologies, tend to collect information which is more descriptive or illustrative of a particular situation (Yin. 1984). Much of the information concerns processes, activities, relations and episodes of events rather than statistics on a particular situation (Yin 1984). It is considered that qualitative design is structured to look for "what is special and different - what distinguishes the case or group, what characterises the community and its values" (Seaman, 1987:171).

Quantitative and qualitative methodologies complement and supplement each other in this study. As (Yin1984) says, it is advantageous to make use of different methods and data sources in order to combat the built-in inadequacies inherent in most research methods.

3.2.2 Sources of data

3.2.2.1 Primary data

Most of the primary data collection was made possible by demographic data collected by the Geographical Information System of the Medical Research Council. The latter provided the researcher with the district demographic records, with the spatial (latitude and longitude) locations of homesteads, the malaria units within which each household was located, and the identification of the heads of homesteads. The same service provided maps of malaria prevalence and geographical features in the region under study from its Malaria Information System database. However, the main source of primary data consisted of interviews with household heads and traditional healers

3.2.2.2 Secondary data.

Secondary data are sources of information other than those obtained from empirical research

work (Yin, 1981). They provide a broader context and a theoretical framework for the purpose of conceptualisation, evaluation and comparison (Sayer, 1984).

In this study, secondary data were obtained mainly from published and unpublished scientific works, in form of books, periodical and scientific journal articles. The Resource Centre of the Medical Research Council was also used. The Libraries of the University of Zululand, and the University of Natal (Institute of Nursing , Durban) provided much of the literature. The review of these sources served both to familiarise the researcher with the study area and study topic, as well as to highlight possible directions for the research to take.

3.3 Data collections techniques

3.3.1 Interview schedules

Two separate interview schedules were designed: one for the traditional healers and one for the members of a selected sample in the community (Appendices I and II). The technique of data collection adopted was the *semi-structured* interview. In this type of interview, it is necessary to have guidelines in order to ensure that a specific area of interest (to the interviewer) is covered to some degree (Hedrick, Bickman and Rog, 1993). However, this is not a rigid set of questions to be answered as in a structured interview (Yin, 1994). The interviewer is therefore somewhat directive but also somewhat flexible, and serves to guide the interviewee only when necessary (Fowler, 1988). This type of interview technique was used extensively in this study, with both the traditional healers and the community.

In both interview schedules, open-ended as well as close-ended questions were used. Each item in the interview schedules had a response set which provided parameters within which the questions had to be answered. The questions were designed so as to gather the information needed for the realisation of the study's objectives. They pertained to the main aspects of the topic under study, namely:

1. Perceptions of malaria aetiology and diagnosis;
2. The utilization of the services of the different types of medical facilities and practitioners;

3. Choice of facility and/or medical practitioner with regard to malaria:
4. Attitudes towards cooperation between traditional and modern medicine.

The interview schedules were in English. However, the researcher was aware that the target population could only speak Zulu/Tonga/Swazi. It was planned that in the field work phase, the researcher would make instant translation from English to Zulu and back to English to record the responses. Difficulties in losing some information through the translation process was anticipated. To deal with this limitation it was decided that the researcher would keep a diary and record significant statements or stories which were not easily translatable in English when the interview was being conducted. The traditional healers interview sheet had 36 questions whereas the community's had 40.

3.3.2 Sampling

The study used a proportional stratified random sample, which divides the population into homogeneous subgroups from which elements are selected at random (Denise and Bernadette, 1987). A proportional number of homesteads was selected from sections 2-10 of the Ndumu malaria area. This procedure was justified by the concern of representativity.

3.3.2.1 Community

A total sample size of 173 homesteads was retained. The heads of homesteads (male or female) had to be the respondents. When the latter were absent or unavailable, the oldest family member, male or female could be the respondent. This selection was justified by the fact that the researcher assumed that adults, preferably the heads of homesteads (for reasons of homogeneity) would be better equipped to respond to questions presented by the interviewer.

3.3.2.2 Traditional healers

For traditional healers, (total population of 1600), a random sample of 85 was originally shortlisted. At the end however, a sample size of only 70 traditional healers was interviewed. Some refused to participate, other were too busy, engaged in their healing activities or were out of Ndumu, consulting in other parts of Kwazulu Natal, or in Mozambique or Swaziland.

3.3.2.3 The use of the Medical Research Council's Geographic Information system

The process of sampling both the community and the traditional healers, was facilitated by the Geographical Information System of the Medical Research Council. This provided the researcher with the district demographic records such as, the spatial location of homesteads, the malaria units within which the household was located, and the identification of the heads of homesteads. Sampling through this system allowed for a computer generated list to be drawn up with associated data.

3.4 Ethical considerations

Permission to have access to the community was sought through local traditional authority: Chiefs Mngomezulu and Mathenjwa. After being briefed about the objectives of the study and its potential benefits for the local community, they granted permission and promised co-operation throughout the study. Besides the chief's permission, heads of families were also asked permission for access to their households, before each interview. The researcher ensured that the rights of the respondents were protected, by informing them about the objectives of the study, and providing assurance that their views would be kept confidential. Consent for the study was obtained from the Medical Research Council Ethics Committee.

Plate 2.4 Showing a researcher looking for respondents in a deserted homestead

3.5 Preliminary pilot study

A pilot study of ten homesteads and six traditional healers was conducted in Ndumu in December 1995 during a week's field trip. The homesteads were selected according to their accessibility from the Malaria control camp where the researcher was based .

Plate 2.5 Showing the researcher and the malaria field worker

In the ten homesteads, the household heads were located and interviewed. It is worthy to remember that the community of Ndumu is settled in scattered patriarchal units. In such a cultural setting, men play an important role as heads of homesteads. Major decisions are taken by them, including those concerning the health care seeking behaviour of their families (Mellish, 1978; Clark, 1996). This is why it was assumed by the researcher that heads of homesteads would be best positioned to answer her questions. Traditional healers were selected according to their seniority and renowned experience. In this task, the researcher counted on the help of Mr Gumede, leader of a local association of traditional healers. Gaining his confidence helped both in identifying the location of the community of potential respondents and also in providing access to traditional healers. The researcher benefited from his knowledge of local cultural realities, especially customs, beliefs and practices related to health and illness. Malaria field workers from the area or those who had worked in the area assisted not only in the location of sampled

respondents, but also in conversing knowledgeably about health related issues and people in Ndumu. The interviews were semi-structured and took a discussion form. The objectives of the pilot study were:

1. to determine the clarity of the questions, and test their acceptability to the local cultural setting (Clark, 1996);
2. to assess the effectiveness of the instructions given;
3. to get a clear indication of the average time required to complete the questionnaire;
4. to identify areas considered as important by the respondents but left out in the first draft designed by the researcher.

During the discussions, attention was given to the speed with which the respondents grasped the substance of the questions, the length of their answers, their hesitations, and their concerns. This exercise allowed the researcher to meet the objectives assigned to the pilot study.

Thereafter, the two interview schedules were re-worked and refined. Account was taken of people's inputs in terms of concepts, observations, concerns and foci of interest (Glaser and Strauss, 1967) Previous to the study, the researcher had worked in a Tonga/Zulu/Swazi speaking area as a nurse for five years. Thus, beside the inputs from the pilot study, her experience and the help of some knowledgeable people earlier mentioned helped in formulating positive questions, without implying value judgements (Clark, 1996).

The final draft of the interview schedule for the community retained 23 out of 40 questions whereas that for the traditional healers increased from 4 to 36 (**Appendices I and II**). The difference in the number of questions is explained by the fact that traditional healers' interview schedules had to include specific questions on malaria diagnosis and treatment. These questions were necessary in the case of community members, since they had to respond from a patient or potential patient's point of view.

3.6 Field work

After the refinement of the interview schedules both for the traditional healers and for the community, field work was scheduled. It comprised two phases. Phase I consisted of the interviews with selected traditional healers (from January 1996 to December 1996). Phase II consisted of the interviews with the sampled members of the community, from January 1997 to September 1997. During the two phases the researcher stayed at the Malaria Control Research Camp in the area. It is from there that she travelled every morning from Monday to Friday to the locations of homesteads to meet with the interviewees.

3.6.1 Location of homesteads and traditional healers

The sampled homesteads and healers were located with the co-operation of local Chiefs Mngomezulu and Mathenjwa. Mr Gumede, the leader of the local traditional healers association was sought for help. As Clark 1996 notes, it was important in research of this nature, to locate community leaders and respected residents, as they are considered wise by ordinary group members. Moreover, they can converse knowledgeably about a culture (Clark, 1996). Finally, throughout the field work, the researcher counted on the help of Mr Mponthsane, a malaria field worker based at the Malaria control camp (see **Plate 2.5**) and community liaison officer Mr David Mthembu, from Medical Research Council, Durban, who knew the area from other research projects in the area. The latter helped in taking photographs.

3.6.2 Adaptation to local settings

Aware that in socio-anthropological research, the interviewer, should identify with the settings he/she finds in the community (Seaman, 1987; Denise & Bernadette, 1987; Yin, 1994), the researcher made an effort to gain confidence and trust by the adoption of a number of behaviours. The researcher dressed like an ordinary rural woman: a head serviette, long simple skirt and a blouse, bare feet with no spectacles or jewellery

Plate 2.6 Shows researcher dressed like an ordinary woman,
Source : Ndumu, 1997

On arrival at every homesteads, the researcher had to announce herself in a loud voice, saying: "Mnumzane", "Kakhulu" or "Bayede". This is done by a stranger who approaches a home, as required by the culture (Felgate, 1982). The next step was to sit down on the ground, until a family member, often a child or a woman comes to see who is there. Then a process of identification started. The researcher's assistants who were familiar to the area explained where the research team was from, and why it happened to be in that home. Subsequently, the researcher was introduced as connected to the malaria team who were known in the area. After a while of conversation about trivialities as required by the culture (Felgate, 1982), the nature of the researcher's particular business was then explained and the interviews could start. At this stage the researcher's assistants had to move away, for reasons of privacy and confidentiality. Interview schedules were in English. However, they were administered in Zulu. For questions which required statements or long explanations, responses were instantly translated into English.

3.6.3 Interviews with traditional healers

Generally, traditional healers were receptive to the approach of the researcher, though, sometimes, there was, at least at the outset of the field work, signs of mistrust. Shared palm beer sometimes lowered the reluctance and opened up the doors of the traditional healers (refer to **Plate 2.7**)

3.6.4 Community house-to house survey

This phase consisted of undertaking interviews with selected members of the community. This phase was much more demanding than the previous one. The first reason being that the size of the first session was greater than that of the group of traditional healers. The second was that, the researcher often found homesteads deserted by the occupants, just because they had heard that a stranger was in the neighbourhood asking questions about the community's way of life and how traditional healers cured diseases (refer to **Plate 2.4**). The researcher associated their aloofness and hesitation to participate to the fact that traditional rural communities (like Ndumu) regard traditional healers not only as medicine men and healers but also as high-ranking community leaders with "supernatural" powers. This was also problematic because the minors are not allowed to talk to strangers. In some homesteads, the researcher only found minors, adults having gone about their every day activities. In some others, homesteads were composed of women and children, the husbands having migrated into cities such as Johannesburg, Durban or Richards Bay for employment. Unable to find the head of the family, male or female, when the husband died or was away for employment or other reasons, the researcher had no other alternative than to interview the oldest of the minors found in place. The youngest minor interviewed was 14 years old. This meant that sometimes the researcher had to leave the homestead and come back on another day, which constituted an unanticipated delay in the programme.

Sometimes, opportunities of participation by the researcher in local practice and community life would arise. When such occasions were open to outsiders, the researcher could be involved. This happened for example at pension pay points and on funeral occasions. On the latter occasion, the researcher joined the community of mourners and payed the "imali yesosi" (the money for candles) as required by the culture. Circumstances such as these were opportunities of a beneficial cultural exposure. They strengthened the researcher's openness to cultural differences and gained

more acceptance of her by the community (Clark, 1996).

Plate 2.7 Shows researcher drinking palm wine (injemane) bought at R1.00 per 500mls

3.7 Data recording

7.1 Quantitative data

Two databases were created, one for traditional healers, and one for the community. Each row in the database constituted a case entry. The columns indicated first, the identification elements, in order for each respondent to be spatially portrayed. These were: the name of the respondent, the place and the area he/she came from, the section and the house numbers, and the spatial location (latitude and longitude). The subsequent columns showed coded responses provided to different questions, the pin number put at the door of every homesteads by the Malaria Control Team and the name of the head of the homestead.

The coding of most responses was nominal coding, i.e. numbers were allocated to the different responses provided, without any real value in the number themselves. Denise and Bernadette (1987) draw our attention to the fact that nominal measurement involves the assignment of numbers to simply classify characteristics into categories. As the two authors argue, the numbers

adopted are merely symbols that represent two or more different values and they are required to be mutually exclusive and collectively exhaustive (Denise and Bernadette, 1987). Numerical categories were preferred to other possible types of symbols because the subsequent analysis of data is simplified when computing is used. Nonetheless, there are data which did not need any special coding, e.g. that pertaining to people's location and identification, their age, level of education, or the traditional healer's cost of service and their experience in years.

3.7.2 Qualitative data

Qualitative data were recorded on the interview schedule sheets, in the space left for this purpose. However, lengthy statements and other insightful comments from the community and from the traditional healers were recorded in a separate notebook. Many authors recognise that the organisation of narrative material is very difficult (Denise and Bernadette, 1987; Yin, 1994). To deal with this problem, the researcher had to design an easy but effective organisational strategy. The aim of this strategy was to allow the researcher to retrieve the information needed with a minimum of effort and in a record time (Bailey, 1982; Seaman, 1987). Thus, it was decided that the material would be classified under different themes. These included: beliefs, practices, attitudes and behaviours, feelings, questions and expectations. These themes were drawn from the narrative material, taking into consideration the objectives assigned to the study.

3.8 Data presentation and analysis

3.8.1 Quantitative data

Descriptive statistical methods were used to organise, summarise and describe quantitative data (Denise and Bernadette, 1987). All the variables (from 1 to 22 in the case of the community and from 1 to 30 in the case of the traditional healers) were analysed statistically. The data were presented mainly in the form of frequency distribution tables. This was done in order to be able to discern general trends (Bailey, 1982). Tabular forms also allowed identification of the highest and the lowest scores, the location of where the bulk of scores tended to cluster, and what the most common score was (Seaman, 1987). The ultimate objective of such an approach is to identify possible generalisations in order to predict the results of similar settings (Yin, 1984). Other relevant primary material such as pictures, copies of the interview schedules are made available in the appendix.

3.8.2 Qualitative data

Qualitative data are presented in the form of interview transcripts where appropriate, to supplement quantitative data in the overall body of the text. Qualitative data are made of statements, stories, observations and concerns of the respondents from the community and the traditional healers. These data are rather narrative and non-quantifiable, influenced by the local cultural particularities (Yin, 1984). The researcher attempted to identify general patterns found in the data, such as themes, trends, attitudes and needs of the group. The final step was to establish relationships between collected data and observed patterns, and actual behaviours and views related to the topic of the study.

In order to analyse the data collected, the researcher used three techniques:

(1) Documentary review (Seaman, 1987) provided the broader context in which to seek understanding of the concept of health and illness in an African cultural setting

(2) The opinions of knowledgeable people (Seaman, 1987). Conversation with local knowledgeable people allowed the researcher to identify important features of the culture.

(3) Content analysis defined as "a systematic method for analysing both the written and spoken language as well as visual material" (Seaman, 1987:173). This is a method for both data collection and data analysis. After the identification, classification and summarizing of the material to be analysed - conversations, stories, observations... the researcher looked for and described attributes, themes, and underlying dimensions of the Ndumu community.

3.8.3 Software support

Ms Eleanor Gouws, Medical Research Council statistician assisted with the tedious work of data recording, statistical calculations, presentation and computing. The following software packages were used: Spreadsheet: Quattro Pro 6.01 for Windows
Database: Database Desktop 5.0 for Windows
Presentations 3.0 for windows

3.8.4 Dissemination of findings

The results obtained from the study will be made available to the malaria control programme department and disseminated to the public through talks, reports and publications.

3.8.5 Conclusion

The quality of research and the validity of its conclusions are to a large extent, determined by the appropriateness of the methods used to collect and analyse the data (Bailey, 1978; Seaman, 1987). This chapter has outlined and justified some of the research strategies utilised in this study. Quantitative as well as qualitative methods were used in order to investigate the knowledge, attitudes and perceptions of the community and the traditional healers with regard to malaria diagnosis and treatment in the Ndumu area.

It was the researcher's feeling that neither of the two methods could, alone, allow the above objective to be achieved. Quantitative methods are generally aimed at the collection of numerical, quantifiable data. The latter are then analysed and interpreted in a way which generally provides standardised information which can be relatively easily manipulated. However, given the nature of the present study, quantifiable data had to be supplemented by non-quantifiable data, more narrative and descriptive. These data could allow the researcher to grasp such local and cultural realities as feelings, beliefs, perceptions and practices. Thus, the two methods had to be used in a complementary way. The combination conveyed to the research both methods' potential advantages and allowed each one to supplement the other's limitations. This chapter has described the research process from the preliminary stage of study design, the sources of data, the data collection techniques, and the final stage of data coding, presentation and analysis. Some of the pitfalls encountered and the way they were dealt with by the researcher were also reported.
This methodological chapter has prepared the ground for the actual contact with the findings of the study, which are presented in the next chapter.

CHAPTER FOUR

LITERATURE REVIEW

4.1 Introduction

Every study is informed by the knowledge already accumulated by previous research work. A review of the available literature familiarizes the researcher with the issues tackled in his/her own research. The advantage of this effort is, on one hand, to ground the research on the insights, which have already come up, and avoid replication. On the other hand, it helps to better conceptualize the object of the new study and its contribution to the existing body of knowledge. This is the role assumed by this chapter.

Literature was selected for its relevance to the aims of this study. This literature pertains to: the concept of indigenous knowledge, the theories of disease causation and health as well as their implications for the delivery of Primary Health Care, the identity, knowledge and role of traditional healers, the attempts at collaboration between modern and traditional systems of health care in developing countries.

4.2 The concept of indigenous knowledge

This study intended to investigate the knowledge, perceptions and attitudes of both the community and traditional healers with regard to malaria treatment and diagnosis. As will be suggested later, the Ndumu community's approach to malaria was grounded in its local rural social and human environment. As with other diseases, the community and its traditional medical practitioners drew on their indigenous knowledge to fight malaria. But what is indigenous knowledge? According to McClure 1989, indigenous knowledge refers to "that body of accumulated wisdom that has evolved from the years of experience and trial-and-error problem solving by groups of people working to meet the challenges they face in their local environment, drawing upon the resources they have at hand" (McClure 1989 quoted in Green, 1994).

In other words. over the years, while a particular group deals with its survival, it develops practical ways to deal with problematic situations. The resources used are those locally available and what "works" is recorded as a valuable acquisition and transmitted from generation to generation.

Variations in environmental and ecological conditions lead to diversification of indigenous knowledge. Amongst others, time reckoning systems, indigenous soil fertilization techniques and basic knowledge of plants and animals within their environment. Coastal communities in the pacific for instance developed a skilled and complex system of marine tenure, food preservation methods, magico-religious taboos and strict fines and punishment (Klee et al., 1980).

In this sense, indigenous knowledge can be seen as an integral part of a group or community's culture. However, culture itself is a complex concept, which encompasses many aspects of life. Culture may be defined as "the way of life which a group of people has worked out to enable them to cope with the problems of daily living in a particular environment". Culture has different components such as all the ways of thinking, feeling, believing and behaving. de Haan argues "there is in fact, no aspect of our lives which is not influenced by the culture to which we belong" (de Haan 1988).

In the same vein Clark (1996) also argues that there are specific culturally prescribed practices related to diet, and food or to health and illness. All cultures have for instance prescribed practices aimed at promoting life or restoring life when illness strikes. This is where medical indigenous knowledge comes in. At this point however, it can be noted that the group's indigenous knowledge becomes more and more professionalised, as specialized knowledge and practices are developed. At the same time specialized people arise to assume the role of depositaries of this knowledge. These are traditional healers who are recognized and given acceptance by the group. Traditional legitimacy develops through time as qualities of merit, value and holiness and become associated with a corporate group such as a congregation or lineage. In the African context, traditional legitimacy is often associated with the wisdom of **ancestral time**, the residue of

centuries of adaptation to an environment. Traditional medicine is based in African cosmology, which includes the supernatural (Freeman, 1992).

Therefore as Green states, an understanding of health related indigenous knowledge and its difference from the modern medical knowledge and practice is essential for health planners and programmes implementers, if plans and programmes are to be culturally appropriate and therefore effective. Such knowledge is available to planners, implementers, western forms of medical care and research and others through approaches that involve the cooperation of traditional healers (Green, 1994). The objective is to re-work the medical paradigms to make them more responsive to the indigenous patient values, beliefs and expectations (Scambler 1991). This study would like to contribute to this initiative.

Definitions of 'health' vary within cultures, subcultures and communities and even within households. between generations for example. There might be gaps between lay and medical concepts (Scambler. 1991). Underlying these different definitions are different world views, beliefs and attitudes towards health and illness and other various ways in which these, together with a host of other social factors can influence people's behaviour when faced with what they perceived to be threats to their well- being (Scambler, 1991).

Because indigenous knowledge is a system, it has to meet the following requirements or criteria of a profession or a body of knowledge like other professions, medicine in particular (Mellish 1978)

4.2.1 Criterion One

A profession is characterized by a large body of specialized theory with well developed technical skills based on this theory and the underlying philosophical concepts. It is characterized by use of theory from sciences and other field of learning relevant to its practice.

Indigenous knowledge is also characterized by a large body of specialised theory and well-developed technical skills **unique** to indigenous African communities. African customs and traditions do not recognise the germ theory like its counter-parts, western trained medical

practitioners. When something goes wrong and sickness strikes into the family, the African wants to know the cause, and naturally, also the prescription to restore balance or good health. From time immemorial, custom and traditions have always offered explanations understood and accepted by the African people. Traditional African beliefs and practices are still widely followed particularly in rural areas (Ngubane, 1977). This is understandable in view of the fact that these beliefs and practices form a coherent system that has maintained an individual and societal equilibrium for generations (Edwards et al., 1983). Central to an understanding of these beliefs and practices is an understanding of traditional African religion which embodies the essence of all religions, its reverence of the elder kinsmen both living and dead.

4.2.1.1 The African tradition religion

In the traditional African understanding, "the relationship with the ancestors and through the ancestors with God permeates all being" (Holdstock, 1979). Ancestral reverence is the primary factor associated with continued good health (Edwards et at. 1983). On the other side, comes sorcery ***or ubuthakathi***, which refers ultimately to "the manipulation and expression of anger and the desire to destroy (Berglund, 1976). It represents all the forces of evil and illness. Thus, traditional African religious and magical theories of illness and health are inextricably interlinked as evident in the popular belief that man is most vulnerable to sorcery once, for some reason, the ancestors are" facing away" and should a man then strengthen himself and his family by performing appropriate rituals to the ancestors, this will ensure continued good health (Berglund, 1976). In this context, disease appears as a man-made phenomenon through the agency of the spirits or follows as a visitation by amadlozi (ancestral spirits) as a punishment for failure to fulfill certain obligatory customary rites to the departed. Disease or rather ill health can also occur as a corrective measure for wrong behaviours which are distasteful to the family, the tribe and the memory of ancestral spirits, for survival after death is 'an axiom of life' in Africa (Willoughby, 1928 in Gumede 1974). In other words, there is an undisputed interdependence between living and the dead. Each has a duty towards the other. Good health or ill health is regarded as a net result of a delicate balance between a man's family and his relationship with the ancestral spirits (**amadlozi**). Good health and good fortune are a rich reward for good behaviour and constant sacrifices to the ancestral spirits. Ill health is a punishment for neglect and denunciation of these

ancestral dignitaries or just painful remainder to 'render unto Caesar that which belongs to Caesar' (Gumede, 1994). Let us now have close look at natural and supernatural cause of illness.

4.2.1.2 Natural versus supernatural theories of illness

Murdock et al. (1980) have developed a comprehensive **classification of theories of illness** held by under-developed societies throughout the world. They make a basic distinction between theories of natural and supernatural causation, which is similar to the distinction between umkhuhlane and ukufa kwabantu made by Ngubane (1977), who worked among the rural Zulu people of the Nyuswa valley near Durban. The following are its components:

(a) **Umkhuhlane** attributes illness to natural causation. This category is recognised by modern medical science with its empirical traditions, e.g. as in case of infection, stress, organic deterioration and accident (Murdock et al.1980). Gumede (1990) writes that in the African theory of medicine, natural causes of sickness or disease-common or ordinary sickness 'mkhuhlane' (Xhosa and Zulu), 'mokgotlane' (Sotho) included in this category are the following: old age, injury, exposure to heat or cold, poison etc.

(b) **Ukufa kwabantu,** on the other hand, holds illness to be brought about by supernatural causation. Ukufa kwabantu literally refers to" disorders of the African people". According to Ngubane (1977), the name is used mainly because philosophy of causality is based on African culture, this means not that the diseases or rather their symptoms are seen as associated with African people only, but that their interpretation is bound up with African ways of viewing health and disease

(c) Gumede (1997), quote Conco (1972) as arguing that unnatural or supernatural in atrogenic and anthropomorphic or magical causation of disease is invoked in cases of what is regarded as extraordinary sickness.

Murdock et al (1980) have divided their category of supernatural causes into three basic divisions. These three divisions can best be conceptualized as three different traditionally acceptable attributions made by the afflicted to explain the affliction. The traditional *ukufa kwabantu* theories (Conco, 1972, Ngubane, 1977) are listed by Edwards et al., 1983 as follows:

(d) Animistic theories ascribe the disorder to the behaviour of some personalized supernatural agent such as spirits of God, for example ***abaphansi basifulathele*** – withdrawal of protection of the ancestral shades, mostly caused by disharmony within the home. **Ukulahla amasiko**- is regareded as failure to perform necessary rituals such as sacrifices to the ancestral shades, **ukuthwasa**- "creative illness" following the calling by the ancestral shades to become a diviner, a religious conversion experience.

(e) Magical theories attribute the disorder to the covert action of a malicious human being who employs magical means to injure his victim, for example: **Ufufunyane**- spirit possession attributed to sorcery, **Umeqo**- disorder possession resulting from treading over the harmful concoction of a sorcerer. **Tokoloshe possession**- witchcraft through the supernatural agent of a witch, **Idliso**- poisoning attributed to sorcery.

(f) Mystical theories explain disorders in terms of an automatic sequence of some act or experience of the afflicted of person, for example: umnyama experiencing illness or adversity because of contact with places or people immediately associated with the major life events, e.g. death, birth, menstruation, **umkhondo omubi**-a dangerous track, or ecological health hazard such as lightning. Traditional assessment of **ukufa kwabantu** and other afflictions classed as **umkhuhlane** is usually by one or more of the broad categories of practitioners, traditional diviner **(isangoma),** doctor **(inyanga)** or health healer/prophet **(muthandazi).** The advent of umuthandazi can be seen as an outgrowth of the influence of urbanization, acculturation Christianity and the African independent church movement, and it has been argued that many of the traditional roles of the Isangoma have been assumed by the umthandazi (West, 1975: Lee, 1969).

4.2.1.3 Cultural metaphors of health

Another way to approach and understand the African traditional thinking about health and illness is through the analysis of certain basic conceptual themes, or dominant cultural metaphors of health, that underlie the system. Drawing on the work of Jansen (1983, 1989), Green (1994) distinguishes four basic themes that relate to health in its broadest sense amongst (especially) Bantu speakers: purity, coolness, balance and social harmony.

1. Purity refers to the absence of contamination or pollution. Contamination may be conceived in natural terms (the pollution of sin, evil spell or something in between and menstrual blood which may regarded as an agent of mystical potency).

2 Coolness refers to lack of "heat". Resembling (and perhaps directly influenced by) traditional health beliefs from the circum-Mediterranean and Islamic regions, African healers may attribute intrinsic hot and cool qualities to both illness and their cures. Negative expression: although any imbalance of hot/cold can explain illness.

3. Balance refers to the maintenance of harmonious relations with nature and the spirit world, (negative expressions may be disfavour of spirits; withdrawal of ancestral protection); social harmony refers specifically to maintenance of harmonious relations with kinfolk, neighbours and others with whom people come into regular social contact.

4. Social harmony refers specifically to maintenance of harmonious relations with kinfolk, neighbours and others with whom people come into regular social contact. Social disharmony leads to resentment, anger, envy, jealousy, etc and often to sorcery and witchcraft. (Negative expressions: sorcery, witchcraft).

The first three of these elements are referred to as elements of wellness. Green (1994), adds the fourth one. He recognizes however, that social harmony might be subcategory of "balance" if social balance is added to balance with nature and the spirit world. Social harmony is offered as a

separate category to account more directly for the centrality in at least Bantu thought of what Jansen himself (1989) calls "...the invisible cause of misfortune and injury arising from the specifically human social dimension of evil-wishing, envy, gossiping, cursing, and mystical hurt within social relations".

In this sense, the term balance might better be understood as a meaning "moral order" in the systematical sense, in the relation to the position of people vis-a-vis other people, the environment, the ancestors and the mystical forces that produce "pollution". In other words, balance should be understood to mean "symmetry" or "order" rather than, as usual, the central pivot in a counterpoise situation (Ngubane, 1977). This point of balance is considered by Ngubane as a pivotal ideology around which revolve practically all the notions that constitute what is known as "**African disease**" (ukufa kwabantu in Zulu). The idea of balance is believed by Ngubane to be very crucial in health matters. According to her, a Zulu conceives good health not only as consisting of a healthy body, but also as a healthy situation of everything that concerns him. Good health means the harmonious working and co-ordination of his universe (Ngubane, 1977). On the other hand illness is believed to come from the breach of this balance, certain actions or behaviours performed or adopted by the individual or their fellows. Numerous other studies done in Sub-Saharan Africa and especially in the Bantu cultural area arrive to the same conclusions, despite regional differences in terms of symbolic conceptualization.

Nyamwaya (1992), in his anthropological analysis of the African indigenous medicine among the rural and urban Kamba, Kikuyu, Gusii, Tharak, Duruma, Digo, Luyia, Luo, Tugen, Kenya, between 1983 and 1990 concluded that interpersonal causes are considered to be as real as the biological restoration. But **Mbiti (1970)**, in his study of the concept of God in Africa, suggested that in the Bantu cultural area, every event happy or unhappy, including illness, is conceptualized and interpreted within a system of permanent search of harmony between the cosmos (nature), the humans (living and dead) and the transcendent (spirits and God). In this world view, good health is seen as harmony between the three spheres of beings.

Conco (1972) researched an interpretive point of view from which a theory underlying the practice of a system of traditional medicine was structured in rural Africans (mainly Zulu in South Africa) and suggested: "on the whole we could generalize and say that indigenous tribal society has or had an all –embracing, supernatural, or metaphysical theory of disease". Implicit to this statement is a holistic view of reality in which human being is an element of a cosmology in which he strived to resolve potential disequilibria to stay healthy and harmoniously integrated. In his work on traditional healing, from a medical doctor's perspective, Gumede (1990) also, emphasized the fact that the traditional healer's approach is holistic medicine. In this system, "man is a total being including his body, mind and soul therefore healing is a total process involving the living and the dead, the 'natural and supernatural in addition to the patient within his environment-physical, spiritual, emotional-past and present"(Gumede, 1990). Frants Staugard (1986), in his study of traditional medicine in Botswana draws the parallels between the Tswana traditional healing systems in southern Africa especially concerning the Tswana healers' conception of cause of disease, their social role and significance in the society and their therapeutical armament. The main parallels he pinpoints are that traditional medicine plays a pre-eminent role in social control in the indigenous society. It represents the justice and stability in a community with no written laws or established judicial system. In this sense traditional medicine is indispensable to the social stability of the local community, since it is integrated with the prevailing religious and moral views. This meets the result of Chavunduka's (1978) investigation in the Shona cultural area of Zimbabwe. The traditional healer is not only a medicine man, but a religious consultant, a legal and political advisor, a police detective, a marriage counsellor and a social worker. In brief he is a guardian of physical, moral, social, spiritual and religious harmony (Staugard, 1986).

4.2.2 Criterion Two

A profession is characterized by a recognised professional group of practitioners and a long period of training at recognized educational institutions. Indigenous knowledge system meets this criterion because there are several types and subtypes of indigenous healers that have been identified throughout sub-Saharan Africa and described in the anthropological literature. However, many authors seem to note that the difference between the different types is vague. Further, in most instances, their roles overlap (Twumasi and Warren, 1986, Msonthi, 1986, Gumede, 1991,Nyamwaya, 1992, Abdool Karim et al, 1994, Green, 1994). This appears to have

confusing implications for the definition of a traditional healer. While individuals who refer to a traditional healer know exactly who they refer to, there seems to be no universally accepted definition of who a traditional healer is (Oyebola, 1986). However, the WHO (1976, 1978b) defined traditional healers as: a group recognized by the community in which they live as being competent to provide health by using vegetables, animal and mineral substances and other methods based on the social, cultural, religious backgrounds as well as on the knowledge, attitudes and belief that are prevalent in the community regarding physical, mental and social well-being and the causation of disease and disability.

A press release from the WHO Regional Office for Africa (1976) gave an open list of synonyms for a traditional healer: 'Traditional therapist, healer, practitioner of traditional medicine, fetish healer . '. This emphasises the fact that there could be a great variation in the titles by which the traditional healer may be identified by various persons. However, as long as his roles fall within the scope of the above definition, which seems sufficiently comprehensive, regardless of slights differences in titles, the identity of a traditional healer within this framework is easy (Oyebola, 1986).

Common distinctions: according to Green (1994) the most common distinctions among traditional healers is that between **herbalist** and **diviner-medium.** Green explains that in ideal-typical terms, the former tends to work primarily with natural *materia medica* while the latter has additionally cultivated a relationship with ancestor and other spirits believed to assist in divination and healing. He goes on to say that in recent generations, two other types of healers have emerged that may be termed indigenous but non-traditional, namely the **religious faith healer** and the **alternative healer.** For Green, (1994) however, it should be recognized that distinctions between categories of healers may be vague, and that some individuals might qualify as two or three types of healer simultaneously (1994). This fact is recognized by other authors. Abdool Karim et al (1994) distinguish four types of African traditional healers and briefly portray their profile and explain their roles. These are: inyanga (herbalist), isangoma (diviner), umthandazi (faith healer) and Traditional Birth Attendants (TBAs).

Inyanga is equivalent to ixhwele in Xhosa and to Mganga in Swahili, derived from Zulu verb **"nyanga"**, to cure /heal of his category are mostly male (90%). They specialize in the use of herbal medicine because they possess an extensive knowledge of curative herbs, natural treatments and medical mixtures of animal origin. Research works carried out by Ngubane (1977) and Conco (1972 on Zulu traditional medicine system found that their comprehensive curative expertise includes **preventive and prophylactic treatment**, rituals and symbolism as well as preparations for luck and fidelity. Some treat only disease and become renowned experts on that disease. These include military doctors, rainmakers and specialists in diseases of specific organs, e.g. heart, kidney or lung disease consultants. Gumede (1991) provided more details about this specialization as indicated later on in this review.

4.2.2.1 Isangoma

Equivalent to ***igqira*** in Xhosa. This is a traditional diviner and diagnostician who not only defines illness but also defines the circumstances of the illness. This refers to what Mburu (1982) terms as the 'ultimate' cause in the African conceptualization. Diviners are usually women. Green and Makhubu (1984) in their study of traditional healing in Swaziland estimate their share at 90%. However, the calling is open to people of either sex, any age and status. A number of authors observe that Sangomas may or may not have knowledge of medicinal herbs, their speciality is **divination** within a supernatural context through culturally accepted "mediumship" with the ancestral spirits (Conco, 1972; Ngubane, 1977; Sokhela et al.1985).

4.2.2.2 Umthandazi

Found as muProfiti in Sesotho and in Setswana: a faith healer. This type of healing is a fairly new phenomenon closely linked to the rise of African Christian Independent churches. Faith healers usually professed to being Christians who belong to one of three missions of African Independent Churches, according to Blackett (1989) and Sokhela et al. (1985), they heal through prayer, by laying hands on patients or providing holy water and ash. They believe their healing power comes directly from God, through ecstatic state and and trance-contact with spirit possession. Hence, they use combination of herbs and holy water in their treatment (Abdool Karim et al.1994). Staugard (1986), from his research on traditional healing in Botswana notes that Faith Healers are not primarily health workers, although healing dominates their activities. He suggests that they

might rather be considered as religious workers, who utilize their healing. Training takes place from recognized traditional healer. Some receive vocational calling from their ancestors which comes through medium of dreams from departed relative who was a divine herself and are apprenticed to a recognized practicing healer for a specified period of time. This will be explained in Chapter 6

4.2.2.3 Traditional Birth Attendants (TBAs)

They are elderly birth attendants who have been midwives for many years and are highly respected for their obstetric and ritual expertise. Their training entails about 15 - 20 years of apprenticeship before they assume the title. Traditional birth attendants are responsible for duties such as the teaching of behavioural avoidance among pregnant women, ritual bathing of the other mother, ritual disposal of placentas and provision of 'healing' medicine after delivery. They also give advice on postpartum and cord care and provide important support for breast-feeding as well as advice on marriage, contraception and fertility (Abdool Karim et al 1994). Traditional birth attendants are widely known and utilized in Third World countries. According to Mankazana (1979), 80-90% of domiciliary deliveries are performed by traditional birth attendants in South Asia. This finding meets the conclusions of several other studies carried out in most Third World countries (Blackett, 1989; Ityavyar, 1984; Whittaker, 1985; Gumede, 1992). Some authors note that Traditional Birth Attendants are culturally and social distinctly different from the group of traditional healers and observe that it is questionable whether TBAs should be described under the same heading as the others (Staugard, 1986; Msonthi, 1986). This differentiation is supported by the WHO which classifies TBAs as a separate category from traditional healers (WHO and UNICEF, 1978a).

4.2.3 Criterion Three

A profession is characterized by some recognized form of registration and licensure to practice. In South Africa, medical professions have registering bodies which have as their main function the maintenance of registers of various categories or groupings within that particular profession, e.g. the medical and Dental Council for doctors and the South African Nursing Council for nurses. Current registration is a requirement for practice and admission to the register and occurs after having undergone the required period of training and passed the examination. (Mellish, 1978)

According to KwaZulu Act on the code of Zulu Law (Act 16 of 1985) **izinyanga zokwelapha** (those skilled in healing) **izinyanga zemithi** (herbalist) and **ababelethisi** (birth attendants) could practise only if licensed. Hess (1998) says in South Africa healers should be registered with Traditional Healers Association and thereafter given a book to certify that they are qualified practitioners. The whole process of professionalisation of traditional healers, realizing their status and role is underway. This shows that indigenous knowledge meets the criteria to be recognized as some form of a healing service.

4.2.4 Criterion Four

A profession is characterized by testing of professional competence for admission to the rank of the profession, ethical control of professional conduct and the healing based on the needs of the patient. Traditional healing meets the criteria in that before a newly qualified healer is allowed to practice he/she is tested in a specialized way. For isangoma a memorable ceremony is organized where student, neophytes and other fellow devines are invited to test the finalist student in a process of "ukuvuma or vumisa". An object, i.e. money or clothes, is hidden and finalist will be expected to find it without assistance (Ngubane, 1977).

Ngubane in Last and Chavunduka 1986 says "What ever we may understand by the professionalisation of traditional medicine it should be emphatically not to be taken to imply that its practitioners have less than professional standing in their own eyes and those of their clients". They take full responsibility for their clients like any other profession. In traditional healing the welfare of the patient is the overriding consideration, payment is in kind (Ngubane 1977; Gumede 1990, Nyamwaya 1992). This will be discuss in chapter six. They have a feeling of exclusiveness because they are different from other groups. Their healing is unique, holistic, comprehensive and covers all members of the all members of the family, including the unborn members of the family "isisu senkosikazi", "umuzi wonke" (the whole house/homestead)

4.2.5 Criterion Five

Recognition by Law

In order to attain the status of a profession, an occupation has to be recognized by the Parliament of the land. In South Africa recognition of traditional healing is still a problem. To be recognized

entails freedom of speech, action and acceptance in all circles of professionalism. Traditional healing is recognized by the present Government of National Unity. The latest South African Medicine and Medical Devices Regulatory Authority aims at replacing the Medicine Control Council which was set up in 1965 with the exclusion of none Orthodox medicine (Hess, 1998)

4.2.6 Criterion Six

Critical analysis of its activities leading to modification of practice.

A neophyte healer is apprentice to a recognized practicing traditional healer. Medication is perfected from time to time, that is why it has been going on for the past 4000 years (Hess 1998). A healer is allowed to use his/her discretion in the performance of his/her duties. Because indigenous healing methods derive from the environment, a healer bases his/her activities on available herbs. This relies strongly on conservation of traditional medicine as described by Hutchings 1996; Rothwell, 1999.

4.2.7 Criterion Seven

Continuous striving for excellence.

The Witch Craft Act was promulgated by the British colonies in 1818 against the use of traditional medicines but traditional healers did not stop healing (Hess, 1998). There are over 200 000 traditional healers in South Africa and 150 associations representing them under a single umbrella body, the Traditional Healers Organization . The Organization currently represents more than 180 000 traditional healers from South Africa and a number of neighboring countries including Swaziland, Zambia and Zimbabwe. It is involved in continuous evaluation of practice by those registered as members to insist on quality care. Seminars are organized to attain new knowledge on preservation of and picking herbs (Hess, 1998)

4.3 Traditional healers in Health care

Mrs. Indira Gandhi the then premier minister of India in her address to the WHO 34th World Assembly (Geneva, May 1981), said very sensibly "[health] services must begin where people are and where problems arise " (WHO, 1981). In 1990, the African population South of the Sahara was estimated to be 518 million. At the same time the number of African traditional healers was

estimated at one million. This means that there was a traditional healer for about every 500 people (1:500) whereas the ratio of physicians to the population is 1:40 000 (Hogle and Prins, 1991). The WHO and UNICEF (1978) recognized that:

Traditional medical practitioners and birth attendants are [...] often part of local community, culture and traditions, and continue to have high social standing in many places, exerting considerable influence on local health practices.

Since traditional healers share their patients' world view and understand their expectations of health care, they are generally more accessible and in some cases more acceptable as health care providers. Therefore traditional healers are potentially valuable partners in the delivery of primary health care, which is, essential health care made universally accessible to individuals and families in the community by means acceptable to them, through their full participation and at a cost that the community and the country can afford . (WHO and UNICEF, 1978).

In support of this view, Gumede (1990) writes that:

> The African Traditional Healer belongs to the same culture, the community and often speaks the same language with his /her patient. Often both the patient and the doctor are tribesmen and owe allegiance to the same chief. Consultations take place not in the sterile meaningless environment of the hospital but at the patient's home in the environment which is not only familiar but where the problem is and where the living dead will hear the incantations of their persons. They [smell impepho] and see the sacrificial beast and roar approval as the goat bleats the bull bellows when slaughtered.

As MacCormack (1986) comments, most people in the Third World conceive health as it is defined by the World Health Organisation as a "state of mental, social and physical well–being". however, health workers are trained primarily to treat disease in an efficient technological way, a conception of the psychological and social concept in which people suffer. For MacCormack this suggests why often when people go to approved medical services for antibiotics, they might also need to consult a diviner to determine the reasons for their misfortune, and perhaps a traditional priest and congregation to ameliorate disturbed social relations and regain a sense of psychological and social well-being (McCormack, 1986). All these views advocate the fact that

traditional healers are in the Third World, a significant resource that should be fully employed in the struggle to provide adequate health. (Hoff,1992)

4.3.1 Collaboration attempts between modern and traditional medicine: a historical account

4.3.1.1 The colonial era

During the colonial era, in most countries, traditional healing practice was outlawed. Colonial administrations instituted new medical systems. Practitioners of the new systems were trained in western schools of medicine with a distinct professional culture. They used highly sophisticated western technological appliances in delivering health care (Twumasi and Warren, 1986). Coming into contact with indigenous healing practices, there was a conflict of interest of operational style, in theoretical orientation and in organisation methods. The colonial system encouraged the institutionalisation of the new system. Twumasi and Warren analysing the cases of Ghana and Zambia, argued that the aim of the colonial authority was to 'liquidate native practice of traditional medicine". The healers were thought "to be insincere, to be quacks who lived on the neuroses of the illiterate folks" (Twumasi, 1981).

As consequence, indigenous healing lost its prestige and was stigmatised. The colonial governments denied indigenous healers any official mandate. Since they did not have any legal backing and their practice was not officially recognised as a legitimate activity, the healers were forced to practice in secrecy (Twumasi and Warren, 1986).

Nevertheless, colonialism and Christianity did not succeed in wiping out or dismantling the traditional medicine system. Traditional practitioners went underground and carried on their activities.

4.3.1.2 The post-independence era

With the post-independence political and cultural reawakening, governments encouraged traditional healers' practice. Nationalist governments embarked on a compaign to promote cultural identity. The favourable political climate buttressed the confidence of traditional healers as a way to improve their public image and their practice (Twumasi and Warren, 1986). They

embarked through the ministries of health, on possible avenues to standardise and upgrade traditional practice. As a result of these initiatives traditional healers evolved with the help of government as an occupational group more and more acceptable to modern African societies. There was an impetus to re-examine local institutions and the wish to encourage indigenous practices deemed to be effective in contributing to the health of the nation. There was also a wish to discourage practices harmful to national development. However, in most countries, the position of traditional healers in regard to the law was still ambiguous. They were not given legal official recognition (Twumasi and Warren, 1986).

4.3.1.3 Traditional healers in South Africa

It is believed that, in South Africa, as it is the case in other Third World Countries, traditional healing is still widely used. Toms (1992), analysing the situation of the Primary Health Care in South Africa, states that " it must acknowledged that 70% of black patients visit a traditional healers before attending a clinic". However, for a long time, traditional healers remained officially outlawed and were not recognised as health care personnel (Abdool Karim et al., 1994). In 1974, the Health Act forbade healers not registered with the South African Medical and Dental Council from practising or performing any act pertaining to the medical profession. In 1982, the Health Act was amended to include those not registered with the South African Associated Health Services Professions Board (Freeman, 1992). Modern medical practitioners were prevented by ethical rules from referring patient to traditional healers (Gumede, 1990).

Despite this lack of legal recognition however, traditional healers continued and still continue to practice. Authorities seem to tolerate them. In fact, in certain areas, cooperative relationships occur between modern and traditional healers (Freeman, 1992). Collaborative initiatives have been initiated by some commendable individuals and institutions. They include university science departments and research centres and institutions. Despite official illegality, traditional healers have already been organised into different associations, such as the South African Traditional Healers Council (SATHC) and the African Traditional Healers' Association (ANTHA). However, the latter is officially registered under the Companies Act and not as health providers as such (Freeman, 1992).

The latest initiatives towards increased collaboration between the traditional healers and the Department of Health was the decision of Parliament in August 1998, to enlist the help of traditional healers in achieving major goals in Primary Health Care. In the first phase of this collaboration, it was decided to set up a statutory council to regulate traditional healers, promote a system of registration, promote their training, develop a code of practice, and catalogue the medicines they use. At the time there were about 200 bodies in place which regulated traditional healers. The total number of traditional healers in South Africa was estimated at over 200 000 - against only 27 000 allopathic doctors (Clarke, 1998b).

In the same vein, the Department of Health introduced before parliament a transformatory bill named South African Medicines and Medical Devices Regulatory Authority Bill (SAMMDRA bill). This piece of legislation, if passed and implemented will bring a totally new look of medicines in South Africa. In brief the Bill establishes a new regulatory authority, the South African Medicines and Medical Devices Regulatory Authority (SAMMDRA), to replace the Medicines Control Council (MCC) which was set up in 1965. This Council had control over all forms of medicine, be they orthodox or complementary in nature. Crucially however, the MCC held all medicine to the same set of standards and procedures. These focused of three issues: safety, quality, and efficacy. In the case of the latter the standards test was the double-blind randomised controlled trial. The SAMMDRA Bill, in contrast makes provision for different procedures and complementary (herbal, traditional, or homeopathic) medicines to be applied. This will be done by establishing separate experts for the two major types of medicine (in addition to those for veterinary medicines and medical devices). In the case of traditional medicines, issues of safety and quality will take precedence over demonstrations of efficacy. The aim is to regulate and not to prevent access to what many people use in preference to Western allopathic medicine (Gray, 1998).

4.3.1.4 Traditional healers in KwaZulu Natal

In KwaZulu Natal, prime collaboration between traditional and conventional medicine includes the Valley Trust initiative. In the 1950's the founder of the Valley Trust, Dr Halley Scott, entered into partnership with the traditional healers in the area. The project was continued by Dr Irwin Friedman in the 1980's. Traditional healers and western doctors have been working together,

successfully in managing diseases in the area for almost 50 years now (Clarke. 1998). Since early 1970's, under the tutelage of the then Secretary of Health, Dr. M.V. Gumede. traditional healers have been encouraged to form associations in order to facilitate registrations and licencing. Traditional healers were encouraged to stop 'hiding behind the curtain of skin and gall bladder' (Gumede. 1992; in Abdool Karim et al., 1994). The Constitution of the Inyanga's National Association was approved in December 1983 by the KwaZulu Government (The Inyanga's National Association. 1983).

Common ventures have been initiated in may fields, including training, pharmacological research on curative properties of indigenous plants, HIV prevention and AIDS education (Munk, 1998) and mental health (Obeholzer, 1985). They have also included constructive discussion on patient care and mutual cross-referrals of patients (Mkize. 1981). community health and nutrition education, maternal and child health care, family planning, immunisation against infectious diseases, prevention and control of locally endemic diseases, provision of treatment for common diseases and injuries, provision of essential drugs for first aid medication (Hoff. 1992).

4.4. Present constraints and Prospects for the future

4.4.1 Present constraints

Despite these positive initiatives however. many constraints remain about the collaboration between biomedical and traditional medicine. Some common major problems and constraints are summarised below.

(1) Mutual perceptions are still reflecting suspicion and misunderstanding. Most biomedical practitioners and researchers tend to associate traditional healing with myth and magic, and a 'primitive' culture that uses non-scientific techniques (Abdool Karim et al., 1994). This delays the establishment of a dialogue between government staff and the traditional healers;

(2) Some biomedical practitioners see the traditional healer as a charlatan, a

crafty deceit. They are or were thought "to be insincere, to be quacks who lived on the neuroses of their illiterate folks" (Twumasi, 1981 ; 1381 quoted in Twumasi and Warren, (1986). On the other hand, activities of fraudulent practitioners might obscure the worthwhile contribution of the majority of bona fide healers (Hoff, 1992) :

(3) The conflict between traditional, holistic, spiritual oriented healing and the modern, biomedical, treatment oriented approach reflects a basic difference in philosophy on the causation of disease and the promotion of health (Conco., 1972; Gumede, 1974; Pillsbury, 1982. Edwards, 1983; Leenderi, 1992).

(4) The absence of a clear legal recognition by many governments of the potential value of traditional practitioners in primary care creates a poor climate for healers and health staff to work together and tends to reinforce secretive practices (Bibeau, 1982; Hoff, 1992).

4.4.1 Prospects for the future

It is a simple fact that traditional systems of medicine remain the major source of health care for more than two-thirds of the world population (WHO, 1981). With regard to health care assessment criteria such as availability, accessibility, affordability and acceptability, traditional medicine, in many instances, seems to score higher than modern medicine. Coe (1978) added the fifth health assessment criteria, transparency, which indisputably puts traditional healers in a better position. This is due to its organisational framework and its operational structures which are lacking in traditional medicine. Nonetheless, as Gumede, 1990, believes, the practice of traditional healers (inyanga, sangoma, abathandazi, spiritual healers) among Africans is a fait accompli. They practice (registered or unregistered) by popular demand. Gumede also believes that the western medical practitioner is treating his patients with his unwelcome (and not sleeping) partner, the medicine man (Gumede, 1990). This fact seems to be supported by statistical evidence on traditional healers utilisation across Africa. Given the high status and influence of

most traditional practitioners among their own people, their role in providing sound and culturally appropriate primary health care should not be underestimated. Further, in countries where needs are great and resources scarce, traditional practitioners can play a significant role in helping people in rural communities to improve their quality of life (Hoff, 1992).

In this context, the suggestion of co-operation put forward by different authors and policy makers seem to be more productive in the short, medium and long run. Mutual respect will however remain a prerequisite for involvement in common ventures (research, education programmes, exchanges of experiences in diagnosis and other diseases). In order to make the ideal of common health for becoming a reality there seem to be no doubt that modern and traditional medicine should join hands. One of the main challenges to face and overcome will remain the lack of a legal framework which would serve as a clear basis for cooperation between two medical systems whose philosophies, codes of practice, level of professionalisation and sources of legitimacy are not the same.

4.5 Conclusion

Literature shows that indigenous medicine is a system and is old as mankind. It is universal and engraved in intuition and deals mostly with the emotional aspects, is **different** and special in that:

medicine is prepared by the healer not by a manufacturing company in another country;
the patient is given a chance to actually prepare his treatment calling on his vicious ancestors for help, verbalizing his problems aloud and the patient is not in isolation but with a community of ancestors. It is still popular to some groups especially those not influenced by western medicine practices and is intertwined in their ways of life. It meets the criteria of a profession though it is difficult for its proponents to prove to the scientific world the action of supernatural powers and the role of the ancestors during the healing session. Like bio-medicine, indigenous medicine has specialists practitioners, izinyanga zokwelapha, izinyanga zamakhambi, nababelethisi. Indigenous medicine has its own materia medica – a large variety of medicines to use to treat diseases, e.g. cleansing medicines, medicines that offer protection, charm medicines and poultices. As this review has shown, bio-medical and traditional medicines has respective strengths and weaknesses.

However, for the common goal of health for all, it is desirable that respective strengths be built upon through co-operation and mutual exchange of experiences. Positive attempts of collaboration have been reported from some Third world countries, from Africa and South Africa. There is no doubt that more is still to come, if some major challenges are overcome. In any case, it appears from the present review that an effective, user-oriented, community-based partnership between the modern and traditional health care providers should be implemented. However, relatively little experience has been gained in western and traditional healers co-operation. In the same way, little data have actually been collected on the actual knowledge of traditional practitioners on disease diagnosis and treatment. The present research aims to contribute in filling the gap, by focusing its interest on the knowledge, attitude and perceptions of both the traditional healers and the community with regard to malaria diagnosis and treatment.

The findings of this investigation will help health policy makers and the malaria control programme services to identify areas of co-operation between them on one hand, the traditional healers and the community on the other, so as "to alleviate the intolerable burden of malaria" (WHO 1993). The study area of the present research is located in the Ngwavuma district of Kwazulu Natal. This region has been identified not only as the most plagued with malaria in KwaZulu Natal where it accounts (together with Ubombo and Hlabisa) for 93% malaria infection cases (Sharp et al. 1988) but also in South Africa as whole. This makes it a worthwhile experimental case where traditional practitioners, the community and the formal health care providers can collaborate in a common local Primary Health Care action against the malaria epidemic.

CHAPTER FIVE
RESULTS: KNOWLEDGE, ATTITUDES AND PERCEPTIONS OF THE COMMUNITY WITH REGARD TO THE DIAGNOSIS AND TREATMENT OF MALARIA

5.1. Introduction

This chapter reports the findings of the community survey with a full statistical analysis. The discussion of results is also included. Issues covered are: respondents profiles; their malaria status; their knowledge about different health care facilities as regard to malaria treatment; the community's order of preference between health care services; factors influencing people's preferences; perceptions about different health care services in regard to malaria treatment; perceptions about possible collaboration between traditional healers and the malaria control team. At the end of the chapter, a summary of findings is given.

5.2. Respondents' profile

5.2.1 Age

Table 5.1 suggests that most of the respondents (71.1%) were concentrated between 20 and 44 years of age. This percentage can further be broken down into 28.4% between 20 and 29, 20.8% between 30 and 39 years and 21.9% between 40 and 49 years. With the 12.1% of the under 20, one gets a total of 82.3 % of the respondents under the age of 50 years. This reflects the earlier mentioned fact that the population of Ndumu is youthful and typical of that found in all developing countries. Only 16.8 of respondents were over 50 years.

Table 5.1 Distribution of respondents in age groups

Table 5.1 shows the respondent's distribution in age groups.

Age groups	Frequency of response	Percent
10-14	7	4.0
15-19	14	8.1
20-24	22	12.8
25-29	27	15.6
30-34	19	10.9
35-39	17	9.9
40-44	18	10.4
45-49	20	11.5
50-54	6	3.5
55-59	6	3.5
60-64	5	2.9
65+	12	6.9

5.2.2 Gender

Table 5.2 Respondents' gender distribution

Table 5.2 shows the gender distribution of the respondents.

Gender	Frequency	Percent
1. Female	126	72.8
2. Male	47	27.2

Table 5.2 indicates that the majority of the respondents (72.8) were females. Only 27.2% of the

respondents were males. Thus there was a 1:2.6 male/female ratio. This also reflects another fact mentioned in Chapter Two about the population of Ndumu. Given the fact that there are no income-generating activities in the areas, men tend to move into cities for employment opportunities. This means that their wives are left behind as heads of households. Other factors such as birth rates and gender-related life expectancy might account for the ratio male/female. However, there was no available data to support the aforementioned hypotheses.

5.2.3 Education

The level of education of the respondents will help in establishing possible correlations between education and the respondent's knowledge, attitudes, and perceptions with regard to malaria diagnosis and treatment. **Table 5.3** shows the respondents levels of education in years of schooling.

Table 5.3 Levels of education in years of schooling in years

Years	Frequency	Percent
0	117	67.6
1	9	5.2
2	4	2.3
3	3	1.7
4	8	4.6
5	8	4.6
6	6	3.5
7	4	2.3
8	3	1.7
9	3	1.7
10	1	0.6
11	4	2.3
12	2	1.2
16	1	0.6

Table 5.3 shows that 67.6% of the respondents had never been to school. 5.2% of respondents had one year of education. There was also a total of 12.7% of respondents having from 3 to 4 years of schooling. The number of respondents with over 4 years of schooling is insignificant, compared to the illiterate. This corresponds with the data presented in Chapter Two on

widespread illiteracy in Ndumu. If it is recalled that the majority of respondents were females, the data on levels of education imply that illiteracy is very high among females. Thus, in Ndumu, as it is elsewhere, health issues remain ultimately a development problem. Health projects to be initiated might produce scarce results as long as general human development problems such as illiteracy are not addressed.

5.2.4 Malaria status

Table 5.4 shows the respondents' exposure to malaria. This information is necessary so as to ascertain whether respondents could give informed opinions on their recent malaria experiences.

Table 5.4 Exposure to malaria

Been exposed to malaria	Frequency	Percent
1. Yes	155	89.6
2. No	18	10.4

The data in **Table 5.4** shows that the majority of the respondents had suffered from malaria (more than 89%). A few, around one tenth of the respondents, had never (or not yet) suffered from malaria. These data on malaria status suggests that the sample was more likely able to talk in an informed manner about their malaria experiences, with special regard to the ability of different health care services involved in its treatment.

Table 5.5 Personal health history with regard to malaria of respondents who had suffered from malaria

Table 5.5 shows the respondents recent malaria experiences

Health history of respondents	Frequency	Percent
1. Last year	28	16.2
2. Last month	25	14.5
3. This week	120	69.3

Table 5.5 shows that 69.3% of respondents stated they were suffering from malaria during the interviews. They were in the active phase, i.e. shivering, sweating and having a poor appetite.

Another 14.5 per cent of respondents admitted that they had had malaria symptoms and suffered from it during the previous month. The remaining 16.2% of respondents said that they suffered from malaria in the previous year, 1995. This supports the data given in figure 2.1, figure 2.2 and in table 2.5 showing that Ndumu had the highest malaria case incidence and malaria case increase in KwaZulu in 1996.

The community based the diagnosis on the signs and symptoms of the disease. According to Western medicine, definite diagnosis is based on a blood test for malaria parasites (Department of Health, 1997). Traditional communities base their diagnosis of a disease on "why" (Conco 1972; Ngubane, 1977; Nyamwaya, 1992), the disease occurred. In a case of malaria, for example, they believed it is because of eating or adding a lot of sugar in one's diet or food that may cause excessive gall "ukudla okunoshukela omningi, noteli (cooking oil) kubanga inyongo" and therefore treatment would be cleansing the system and drinking bitter tonics. They believed pregnant women and children are more at risk because they could not cleanse (**ukuphalaza nokuchatha**) due to their physical conditions.

The researcher thought they associated mosquitoes with bees, the latter producing "sweet" honey from "sucking from or biting on" maybe sweet flowers so that bitter tonics would act as repellents. Bitter medicines are supposedly contra-indicated to pregnant women for abortion and to children for fear of overdosing.

5.2.5 Familiarity with available health care services (HCSs)

Familiarity with available health care services is also an important factor in determining how knowledgeably the respondents talk about health care providers. **Table 5.6** shows the most frequented destinations of the respondents for treatment.

Table 5.6 Visits to local health care services

Local Health Care Service	Frequency	Percent
1. Ingwavuma Hospital	24	13.9
2. Ndumu Clinic	58	33.5
3. Shemula Clinic	3	1.7
4. Malaria Camp	59	34.1
5. Other, e.g. self help tradition healers	29	16.8

The majority of the respondents (34.1%) stated that they attended the malaria camp for treatment. Those who attended Ndumu clinic represented a share of 33.5%, whereas those who admitted to using services other than local health care services constituted 16.8%. These respondents reported using home remedies or consulting a traditional healer. Those who attended Ingwavuma Hospital were 13.9% of the respondents. A negligible share of 1.6 % of the respondents attended Shemula clinic. (**See Figure 2.2** for location of Ingwavuma Hospital and Ndumu health services)

These figures suggest that the majority of the community attended the malaria camp. Two main reasons account for this fact. First, the camp is closer to the community. Second, it keeps malaria treatment drugs. Those who went to Ndumu clinic were either close to the clinic or referred by the camp. Some respondents told the researcher that they actually went to Ndumu clinic when there were no personnel available at the camp. In other words, at night or after hours, it became worthless to go to the Malaria Control Programme camp. Patients resorted to the traditional healer or to home remedies. It appeared that the community had a good knowledge of common and readily available medicinal herbs. An adult would start self treatment without necessarily notifying the family members. It was only when signs persisted that other members of the family were notified. Self treatment begun when the symptoms appeared and the choice of treatment based on "knowledge of first line treatment of common, ordinary, natural sickness like **Mkhuhlane Syndromes**", (Conco, 1972). If their common efforts did not yield any good result,

they went to the traditional healer and/or to the camp.

The Malaria Control Programme Camp and traditional healers seemed to be somehow used concomitantly by the community. Some Malaria Control field workers told the researcher that they often found shivering patients in traditional healers' houses and gave them medicine. Likewise, when people/clients from the urban areas contracted the disease during their visit to the traditional healers' homes, the camp provided them with malaria treatment.

Patients who went to Ingwavuma Hospital were either referred by the clinic because of complications such as pregnancy, age (babies), severe dehydration, cerebral malaria, etc.
The local referral system, supported by Scambler, 1991, seems to follow the model below:

Figure 4.1 Local referral system

HOSPITAL: Complicated cases
⇑
CLINIC: Referrals from the Camp and Traditional healer
⇑
CAMP AND TRADITIONAL HEALER: Self and Family referrals
⇑
FAMILY: Self-help or Experienced family member

5.3. Knowledge about different Health Care Services with regard to malaria treatment

This section consists of responses about what the community knew about different available health care services with regard to malaria treatment. Tables 5.7, 5.8 and 5.9 show how respondents perceive of ability of the clinic, the hospital and the traditional healer to cure malaria.

5.3.1 Perception of malaria treatment at the clinic

Table 5.7 Perceptions of the clinic to cure malaria

Response	Frequency	Percent
1. Yes	78	45.1
2. No	48	27.7
3. Other	47	27.2

A proportion of 45.1% of the respondents admitted that the clinic could cure malaria. Those for whom the clinic could not cure malaria were 27.7%. A story from a respondent gave an account of the aforementioned fact in this way: "last year I went to the clinic, they gave me medicine, and again this year, I have the same problem/disease, this disease is a killer, meaning " ngonyaka odlulile ngavakashela eKlinik banginika umuthi, nakulonyaka futhi lenkinga/isifo singiphethe, lesisifo siyabahlula". This seems to agree with arguments put forward in the literature, according to which "to cure" is equivalent to "eradicate" in the African traditional setting of health and illness (Ngubane, 1972, Gumede, 1990). From the modern medical perspective, to cure means to bring back somebody to life, to use a medicine successfully and not necessarily to eradicate (Gumede, 1990). Yet for the African, "cured" means "eliminated and wiped out". This is even strengthened by the fact that illness is associated with the ancestors. It is believed that after the rituals due to the ancestors, for a patient the illness should be eradicated and not come back. This might explain why a significant share of people held the view that the clinic could not cure malaria. Like the traditional healer, the clinic offers a temporary relief, **thithibeza**

A share of 27.7% was made of people who had never used the clinic for any other reason. Some said so, because they had never suffered from malaria. For others, financial means (mainly transport fees) as well as the inaccessibility in terms of distance might also have been the reasons. Finally, respondents might not have used the clinic because health care services were available in the neighbourhood from the traditional healer.

5.3.2 Perceptions of malaria treatment at the hospital

Table 5.8 Hospital's score about curing malaria

Responses	Frequency	Percent
1. Yes	43	24.9
2. No	7	4.0
3. Other	123	71.1

The majority of the respondents (71.1%) said that they did not know if the hospital could cure malaria. Most likely, this might reflect the fact that these respondents had never been to the hospital as such for reasons already stated (distance, financial means, other health care services). A share of 24.9% admitted that the hospital could cure malaria. They seemingly had been to hospital for treatment as referrals from the clinic, or they might have heard from others. A much lower percentage of 4.5 responded that the hospital could not cure malaria. This statement might be based upon the same cultural understanding of the concept "to cure" as suggested above in the case of the clinic. Since the hospital could not eradicate the disease, it could not cure it, according to the understanding of the local community. Further, it could be noted that most of the cases referred to the hospital were very serious. Thus, when patients ended up dying there, some people might conclude that hospitals could not cure malaria.

5.3.3 Perceptions of malaria treatment at the traditional healer

Table 5.9 Traditional healer's score about curing malaria

Responses	Frequency	Percent
1. Yes	10	5.8
2. No	114	65.9
3.Other	49	28.3

As **Table 5.9,** the majority of the respondents (65.9%) said that the traditional healer could not cure malaria. Here again the same comment made about the clinic and the hospital may be put forward. For the respondents, the traditional healer could not cure malaria because he/she did not treat it completely. Most of the respondents said that the traditional healer could instead "thithibeza isifo" (provide short term relief). This expression seems to mean that the traditional healer could provide a temporary ease, or relief to the disease. Thus, the patient could feel better for a while.

A correct grasp of the context of understanding in which the community approaches the concept "to cure" is of utmost importance. In actual fact, saying that the traditional healer did not cure malaria did not mean that he/she was less frequented. What is acknowledged, honestly is the fact that he/she was unable to eradicate malaria. Part of the category "other" in tables 5.7 and 5.9 is certainly made by those respondents who resorted to traditional healers and who did actually not know anything about whether the clinic or the hospital could cure malaria. The category "other" in table 5.6 also implies the use of traditional healing, since resorting to home remedies was likely to involve the local traditional healer. Besides, the fact that the traditional healer generally charged less or did not necessarily require cash payment, made people seek his/her help. Pretorius's study in 1992, shows that utilization the services of a healer is not influenced negatively by cost. This supports the theory that culture determines an individual's health-seeking behaviour

The respondents who said that they did not know if traditional healers could cure malaria were 28.3%. This percentage included also the number of respondents who said they had never and would never visit a traditional healer. They allegedly did not believe in traditional medicine. A

closer look at the profile of the respondents in this last category indicates an evident correlation between factors such as age, education and religion, and the tendency to dismiss the capacity of the traditional healer to cure malaria.

Although the study did not enquire into respondent's religious affiliations, it is worth mentioning that religion, age and education can influence people's attitude towards traditional medicine/healers. Research done by Pretorius (1992) led her to conclude that the majority of those who consult traditional healers belong to the category of "low level of education, belong to the non-orthodox churches" and older persons with traditional life-styles. (Refer to **Table 2.2** around 65% of the population had no levels of schooling, 1996 census)

A low 5.8% of the respondents acknowledged that the traditional healer could cure malaria. Stories from these respondents suggest that they had malaria once in their lives, went to a traditional healer, and since, they had not had it again. This is why they confirmed that the traditional healer could cure malaria. This meets people's cultural understanding of the concept "to cure". However, this response does not indicate the extent of the "use" of the traditional healer's services, as said earlier.

5.4. The community's order of preference between Health Care Services

This section reports the preferences of people for different health care services when they are sick. This is important in (1) identifying health care services which are most frequently used by the community, the reasons behind this use and (2) more importantly, establishing the place of the local traditional healer in the process of health care provision. To this end table 5.10 shows the community's first choice. Tables 5.10; 5.11 and 5.12 report the community's justification for their first, second and third places.

Table 5.10 First attended health care service (HCS)

Health Care Service	Frequency	Percent
1. Clinic	50	28.9
2. Hospital	13	7.5
3. Traditional healer	9	5.2
4. Malaria camp	84	48.6
5. Other	17	9.8

As shown in **table 5.10**, the majority of the respondents (48.6%) admitted that they visited the malaria camp first. Those who attended the clinic first represented 28.9%, whereas 9.8% said they did not attend any of the above health care service centres. Those who attended the hospital represent 7.5% and 5.2% said they attended the services of a traditional healer in the first instance.

Table 5.11 First Attended Health Care Service : Justification

Justification choice	Frequency	Percent
1. Cheaper	6	3.5
2. Nearer	95	54.9
3. Can treat	63	30.6
4. Other	19	11.0

Table 5.11 shows that, a very large majority of the respondents (54.9%) stated that the distance factor was responsible for their choice of health care service. Thus, accessibility of health care service seemed to be the first and most important reason which dictated people's choices about where to go when they were sick. Distance was followed, with a much lesser degree (30.6%) by the respondent's belief on the efficiency of health care services, i.e. whether they could be better treated there. Financial affordability came with a very insignificant share (3.5%) supposedly for the reason that clinic services are free. The category "other" represented 11.0%. It included such various reasons, for instance, being transferred by one or the other practitioner, having never been to the camp or resorting to home remedy and attending the services of a traditional healer.

Although most of the respondents rated the camps as providing the best treatment, they however, hold the view that chloroquine the frequently administerd drug did only the "thithibeza", just as did some traditional healers. The older generations associated malaria with the type of food eaten and believed that chloroquine caused "isithingithingi", i.e. "woolliness". Therefore, for them, actually nobody "cured" malaria and the best solution in case the symptoms appeared was to combine remedies from the traditional healers and from modern medicine. Some said they could boil water, add in some Vicks Vaporub and inhale the medicine, covered with a blanket "ukugquma". They could also rub their bodies with Vicks vaporub after inhaling and take Disprin or Compral. In case the latter two were not available, they said they could burn "imphepho' or "izinyamazane" from the traditional healer and get relief. The idea that anti-malaria treatment may cause some side effects, "wooliness/ isithingithingi", could be the deterrent and should be weighed

against the pleasure attained when using what is culturally defined, readily available and without side effects

As described in Chapter Two the community relied on small-scale subsistence farming which is dependent on satisfactory physical and mental fitness.

Table 5.12 Second Attended : Justification

Justification for choice 2	Frequency	Percent
1. Cheaper	2	1.2
2. Nearer	11	6.4
3. Can treat	27	15.6
4. Other	132	76.3
5. No response	1	0.6

Table 5.12 shows that a proportion of 76.3% of respondents petitioned the category "other". Those who said that they went to hospital because it could treat malaria were 15.6%. A share of 6.4% chose the hospital because it was near, whereas 1.2% said they chose the second place (the hospital) because it was cheaper.

Thus, whereas the distance factor was prominent in the justification given for the choice of the first health service to attend (54.9%) (Table 5.11), only 6.4% of respondents stated that distance was the reason for their second choice. An even lesser share went to affordability. What these data seem to suggest is that the second place (hospital) was actually not that much frequented. Therefore, being closer, affordable or whether it could treat, did not take much importance for the respondents. Maybe by the time a second choice is made the disease is quite serious, distance and money become less important.

Pretorius, 1992, says that distance does not seem to act as deterrent because in consulting a traditional healer "often a person prefers to consult a healer in another area, on the other hand because the client expects the traditional healer to identify the problem without prior information..." This suggests that respondents would have visited the traditional healer even

though the clinic was close by and accessible in terms of money, transport and roads (infrastructure).

Table 5.13 Third attended HCS: Justification

Justification for choice 3	Frequency	Percent
1. Cheaper	9	5.2
2. Nearer	5	2.9
3. Can treat	5	2.9
4. Other	154	89.0

Table 5.13 shows the large majority of respondents did have other reasons than financial affordability, proximity or efficiency behind the attendance the third health care service. This seems to suggest that the third service the respondents had did not depend on their own choices. In other words they were referred to the intermediary service.

5.5. Factors influencing people's preferences

The factors influencing people's preferences with regard to which health care services to use are presented in this section. Factors such as distance (table 5.14), means of transport (tables 5.15 and 5.16), family and local support system (table 5.17) and service fee ranges (table 5.18) were considered.

5.5.1 Distance

Table 5.14 Distance from home to traditional healer

Distance/Time	Frequency	Percent
1. 30 minutes walk	133	76.9
2. 45 minutes walk	31	17.9
3. 1 hour walk	7	4.0
4 Other	2	1.2

As shown in **Table 5.14**, most respondents (76.9%) stayed within a distance of 30 minutes walk from the traditional healer. Another 17.9% stayed at 45 minutes walk from the traditional healer. In total, about 72.8% of the respondents reported to be staying at less than a 45 minutes walk distance from the traditional healer. This was coherent with the way respondents motivated their choices about where they went first for treatment.

With a share of 4.0% of those who stayed within an hour's walk from the traditional healer, one gets almost the totality of the respondents (98.2) as staying at less than an hour walk from the traditional healer.

A share of 1.2%, i.e. "the other category" which represented relatives and family members in the traditional healer's households, reported to be staying at less than 30 minutes walk from the traditional healer.

5.5.2 Transport

Table 5.15 Means used by people to go to clinic

Transport to healers home	Frequency	Percent
1. Walk	**95**	**54.9**
2. Taxi	**67**	**38.7**
3. Bus	**2**	**1.2**
4. Other	**9**	**5.2**

As it can be seen in **Table 5.15,** 54.9% of the respondents stated that they walked to go to clinic. Those who reported to be using taxis were 38.7%. Those who said they used a bus represented 1.2%. The category "other"(5.2%) comprised those who did not know how people went to the clinic, since they themselves had never been there. This confirms with literature that the community might perceive the disease as not serious enough to create an extraordinary awareness, and diseases like that are regarded as every day's **"mkhuhlane"** afflictions. (Conco, 1972; Ngubane, 1977; Gumede, 1990.)

These data suggest that besides factors such as poverty and lower level of income, infrastructure facilities have to be taken into account when considering what means people choose to go to the clinic.

Table 5.16 Means used by people to go to hospital

Transport to Hospital	Frequency	Percent
1. Walk	**7**	**4.0**
2. Taxi	**106**	**61.3**
3. Bus	**40**	**23.1**
4. Other	**20**	**11.6**

Table 5.16 indicates that in the case of hospital, those who went by taxi represented 61.3% of the respondents. Those went by bus constituted 23.1% whereas 11.6% did not know how the patients went, either because they had never been to the hospital or because none of their family members had ever been. Those who walked to the hospital were 4.0% of the respondents.

These data point to the inaccessibility of the hospital services for the majority of the people. When one takes into account the fact that malaria patients are generally weak, have a headache, muscle pain and unable to walk, one understands the pain they experience when going to the hospital. In case patients are not admitted, they have to go back home or sleep at their relatives' homes with all the suffering that this entails. Thus, it may be said that it is only usually a very complicated case that has to be taken to hospital.

Some respondents explained that conditions are that when there is no transport (buses make one trip per day) and they had to sleep overnight at the Out Patient Department, they were not given blankets to cover their bodies against mosquitoes. "abasiniki izingubo zokulala." (Refer to **Plate 2.3.** for the type of attire)

Here again one has to notice a significant percentage of people who said they had never been to the hospital. Having been healthy all along or having used the services of a traditional healer and the Malaria control program camp do not seem sufficient reasons to explain the fact. Other factors such as poverty might have prevented people from going to the hospital. Scarce resources might not be spent on one family member because they have the potential to support the whole family (Clarke, 1996).

5.5.3 Family and local support system

This table (5.17) show types of family support systems prevailing in each family during crises. It looks at who accompanies ill family members to a health centre e.g mother/father in case of children, a husband in case of a married woman, a wife in case of a married man, a traditional healer or any other person.

Table 5.17 Intervention in case of illness

Family member	Frequency	Percent
1. Self	28	16.2
2. Mother	120	69.4
3. Father	6	3.5
4. Husband/Wife	11	6.4
5. Traditional healer	0	0.0
6. Other	8	4.6

Table 5.17 shows that a share of 69.4% reported that they were taken by the mother. Those who went by themselves represented 16.2% whereas 6.4% were taken by their husbands/wives. Those who were taken by their fathers were 3.5% of the respondents. The category of "other" represented 4.6%. It comprised people who had never been to the clinic, hospital or malaria camp. None of the respondents reported to have been taken by a traditional healer.

These data seem to point to the responsibility of women in the health provision to the community. The intervention of mothers is more than visible, contrasting with the low intervention of husbands and fathers. This might be explained by facts mentioned earlier about gender distribution

in the area. Given that generally, men are away for employment, women are delegated with the role of heads of homesteads and therefore have to cater for the health of their family members. This seems to be supported by other research done on the role of the women in the provision of health care in the rural areas (Wilson and Ramphele 1990). These responsibilities about family health take much of the time that women should be spending on other activities related to their family subsistence. This, in turn, has a negative impact on households' welfare.

5.4. Service fee ranges

Table 5.18 describes the range of fees paid by patients for their consultation and whether **the fees** ranged between < - R 30, R3. - R5, R6. – R10, R11. – R20, R21. – R30

Table 5.18 Service fee range

Field	Frequency	Percent
1. < - R3.00	88	55.9
2.R3 - R5.	49	28.3
3.R6 – R10	0	0.0
4.R11 – R20	4	2.3
5. R21 – R30	1	0.6
6. > - R30	0	0.0
7. Other	31	17.9

The findings presented in **Table 5.18** show that those who paid less than three Rand represented 55.9% and were in the majority. Those who paid between R3 and R5 constituted a proportion of 28.3%. A share of 17.9% had never been to the clinic or to the hospital. A share of 2.3 % reported having paid between R11 and R20. These were those admitted to hospital. Very few (0.6%) reported having paid between R 21 and R 30.

The cost of medical care stated above might not appear exorbitant. However, for the poor rural community of Ndumu **(see socio-economic status in chapter two above) the fee ranges are** far from being affordable. When these costs are considered together with the distance factor and travel-related costs, they provide an explanation as to why the respondents did not favour the use of hospital. Attention is drawn to Pretorius (1992), that who says distance is not a measure of concern when it comes to the utilisation of the services of a traditional healer. The researcher associates this attitude to the fact that traditional healing is a joint effort, a therapeutic alliance between the client and the traditional healer and among an assemblage of responsible ancestors – the healers' ancestors, patients' ancestors, i.e. the whole generation of ancestors, "**bonke abalele**."

The situation may probably be different by now. By the end of this research in 1996, a free health care services Bill for children from birth to five years old was adopted. Moreover during the time of this study, Ndumu Hospital was open and Shemula clinic opened towards the end of 1996 on a fortnightly basis (twice a month). Spolipoli clinic was built later and open towards the end 1996 as well. (See Figure 2.4)

5.6 Perceptions about different Health Care Services with regard to malaria treatment

This section represents the community's perceptions about different health care services with regard to the treatment of malaria. The relative efficacy of the different Health Care Services and the reasons for this are presented in tables 5.4, 5.6, 5.19 and table 5.20.

Table 5.19 Preferences for Health Care Services

Better treatment place	Frequency	Percent
1. Hospital	43	24.9
2. Clinic	46	26.6
3. Traditional healer	3	1.7
4. Malaria Camp	59	34.1
5. Other	22	12.7

Table 5.19 indicates that for the community, the camp had the highest score, with 34.1% of respondents affirming that it could treat malaria better. The second was the clinic, with 26.6 % of the responses. The third was the hospital with a score of 24.3%. Finally, 12.7% said that they did not know what the best place was. Those saying that the traditional healer was the best represented a low percentage of just 1.7%.

One respondent, a lady teacher, (was found at her work place) explained with serious concern that the majority of the community use the services of a traditional healer at Ndumu. She brought to the researcher a small boy who looked very ill, his body was very hot on touch, pale and had fresh traditional incisions (**"gcaba"**) and, as nurse, researcher suspected a combination of malnutrition, worm infestation "**izikelemu**" and malaria. The researcher urged the teacher to send pupil home with a letter explaining to parent the need for medical attention as is done in urban areas, (teacher said mother cannot read). She said "we allow them to stay in the sun when feeling cold and to join the class when they feel better. She mentioned that it is difficult to teach during malaria outbreaks "nathi uqobo siza esikoleni siqhuqha," since malaria affects both teachers and pupils. What this points at is that teachers at school should be involved in the malaria control programme by allowing them to keep malaria treatment in order to decentralise the malaria control programme. She also mentioned that traditional healers keep clients in their houses for much longer periods before accessing them to the clinic or hospital, and some unfortunately die there.

Table 5.20 Justifications choice of HCSs' scores

Justification for choice	Frequency	Percent
1. Have better medicine	102	59.0
2. Can diagnose	47	27.2
3. Has magic	1	0.6
4. Other	23	13.3

As **table 5.20** indicates, those who voted for the malaria camp justified their opinion by the fact that the camp had better medicines (59.0%). The respondents qualifying the clinic as second based their opinion on the fact that it could diagnose (27.2%). A share of 13.2% said they did not know and 0.6% felt that the traditional healer could treat better because he had magic.

Did these statistics reflect reality? Camps keep curative medicines and do definitive malaria diagnosis. The high percentage of people saying that they had better medicines might have gone to them when they still had a mild malaria. As for the clinic, the respondents rightly said that it could diagnose. The clinic is equipped for tests. Those diagnosed positive were put on a malaria cure and sent home. Those who said that they did not know had either never suffered from malaria or resorted to home remedies. The only respondents who mentioned the traditional healer said that they had never suffered after having taken a treatment from the traditional healer.

5.7. Perceptions about possible collaboration between traditional healers & malaria control team

What were the views of the community about the possibility of seeing the traditional healers working together with the malaria control team? The answers to this concern are important in order to test if ultimately, the community sees any advantage in the two systems working together for the improvement of their health care. **Table 5.21** shows how the respondents were distributed in favour or not in favour. **Table 5.22** indicates the form of collaboration the community would like to see happening. Finally, **table 5.23** shows whether or not the community would be keen in using the services of trained traditional healers.

5.7.1 For or against collaboration

Table 5.21 Scores for or against collaboration

Against collaboration	Frequency	Percent
1. Yes	150	86.7
2. No	15	8.7
3. Other	8	4.6

Table 5.21 shows that the majority of the respondents (86.7%) would like to see traditional healers working together with the malaria control team. A share of 8.7% were against possible collaboration, whereas a further 4.6% said they did not know. For this latter category it was up to the two types of practitioners to decide.

The above figures seem to be inconsistent with other figures given on other questions. So far, the traditional healer had been given a lesser score, in terms of being frequented, and a lower rank in health care provision and quality of his/her services. However, the widely expressed wish to see traditional healers collaborating with the modern health sector, seems to indicate that the services of traditional healers were actually widely used and needed. Those who were against the collaboration seemed to be those who did not use the services of traditional healers.

Nonetheless, the views expressed indicated that the community was widely supportive for the collaboration between the two systems. Some said that the collaboration would bring free choice to the community, without one system looking down upon the other, especially when referrals are made. Patients from the traditional healers normally were denigrated by nurses, especially when they arrived with complicated stages of certain diseases. Possible collaboration appeared thus to be beneficial to the community, reducing the people's psychological burden and contributing to a better health care.

5.7.2 Form of collaboration between Malaria control programme and Traditional healers

Table 5.22 is about forms of collaboration between traditional healers and the malaria team with regards to whether collaboration should be based on traditional healers keeping and supplying

malaria treatment to the community, teaching them how to diagnose, encouraging them to refer patients to the clinic or the clinic referring back to the traditional healer or any form of collaboration

Table 5.22 The community's suggested forms of collaboration

Suggested form of collaboration	Frequency	Percent
1. Give malaria medicine	68	39.3
2. Teach how to diagnose	24	13.9
3. Traditional healer to refer to clinic/hospital	52	30.1
4. Clinic to refer to traditional healer	1	0.6
5. Other	28	16.2

Table **5.22** indicates that the majority of respondents felt that malaria medicines should be given to traditional healers (39.3%). A further 30.1% said that traditional healers should refer to the clinic, whereas 16.2% was a combination of all forms of collaboration. A share of 13.9% felt that traditional healers should be taught how to diagnose, whereas 0.6% thought that the clinic should refer to traditional healers.

The data seem to be in favour of collaboration. A special focus was put on the traditional healer and the role he/she could play. A number of reasons might have accounted for the central role given to the traditional healer. Respondent suggested that while it was not easily possible to walk as far as the hospital, the traditional healer was accessible and knew whoever might be suffering. He could even go himself to the homesteads and give medicines. Patients could find accommodation at the traditional healer's homestead if they went to him. Food could be provided, whereas they would have to spend the money they did not have for the same facilities if they visited a hospital. When the traditional healer was not around, his family could still give malaria treatments.

However, some felt that there should be some criteria in the choice of traditional healers entrusted with medicines. The reason given was that some would not know how to give them and might

even over or underdose. There were also fears that traditional healers might charge for the medicine they give out, while they were provided free by the camp. Others felt that there should not be any selection of traditional healers entrusted with medicine. Many considered that female traditional healers should not be given medicines, especially quinine, because they could be used for abortion.

Nonetheless, the data seem to indicate how the community values the traditional healer as the best indicated provider of health care. The fact that the majority felt that medicines should be given to traditional healers implies and supports the fact that they were the closest to the community, socially and geographically. Here it might be worthy to recall the 76.9% of the respondents said previously that they were living within 0 to 30 minutes walk. Thus, for the community, "abafuna inyanga bazoya enyangeni, uma yehluleka bangasabi ukuya emtholampilo."(those who prefer the services of a traditional should be free to use such a services and if the healer`s medicines fail client`s should feel free to move to next level of care"). Freeman (1992) supports the idea and says that modern and traditional systems should operate independently with consumers choosing whom to consult.

5.7.3 About utilisation of trained traditional healers

Table 5.23 shows the community's potential willingness to utilize trained traditional healers

It looks at the number of people who would use the trained traditional healer's services, and is the basis for future collaboration.

Table 5.23 Potential use of trained traditional healers

Utilisation of trained traditional	Frequency	Percent
1. Yes	154	89.9
2. No	13	7.5
3. Other	6	3.5

Table 5.23 shows that the majority of respondents (89.0%) reported that they would like to use trained traditional healers. Only 7.5% did not wish to use trained traditional healers, whereas 3.5% (other category) considered that traditional healers should never freely be allowed to use their malaria medicines.

The statistics given here tie in with those given on the two previous issues about the possibility and the form of collaboration. Most of the respondents were in favour of collaboration in general. When it came to the form of collaboration, most wished that the traditional healer could be given medicines. All this, combined with the latter fact that the community would use trained traditional healers, seem to suggest at least one important thing. Although traditional healers were not considered to be able to "cure" malaria or to treat it better, most of the respondents felt that once trained, they could be profitably used by the community. Those who said they would not like to see the training of traditional healers seemed to be those who tended to look down upon them, because of their level of education, religion and perhaps better-off socio-economic conditions. Thus, it could be considered that those who could move easily to the clinic and hospital, afford transport and other cost, tended to say that they were not interested in seeing traditional healers trained. They were not using them anyway. However, as said earlier, the levels of poverty and unemployment in Ndumu are such that the "better-off" group is very small. In other words it may be said that those who did not use the services of traditional healers and therefore were not interested in seeing them trained were very few.

5.8 Conclusion

Respondents' profile

The demographic profile of respondents indicated a large proportion of people age between 20 and 49 years (71,1%) and mostly female (72.8). This means that the population was predominantly young and females had a heavy burden on their shoulders in terms of the health status of the community. It appeared for instance that 69.4% of malaria patients were taken to clinic or hospital by their mothers. The community was also largely dominated by high levels of illiteracy, as a large number of respondents had never been to school (67.6%. This had implications on the health status of the community and on possible policy measures to be taken in

order to improve the provision of health care in the area.

Exposure to malaria

As indicated by the findings of the studies (Ngxongo, 1993; Sharp and le Sueur, 1996) malaria is epidemic in the area. In terms of personal history with regard to malaria, the study found that more than 89% of the respondents stated that they were suffering from it not less than a month before. This means that they could talk "knowledgeably" about their malaria experiences.

Many respondents were well aware of the epidemicity of malaria in the area and were almost of the view that malaria was there to stay. The fact that natural conditions in the area are favourable for the breeding of the mosquito vector surely made the community consider that malaria could not be eradicated. This made sense in that even when properly treated it was likely to strike again, since the patients remained in the same natural environment. The respondents were also aware that the new strains of malaria were "growing stronger and stronger". This pointed to the issue of chloroquine resistant strains (Freese et al, 1988) of malaria increasing in prevalence in area.

Familiarity with local health care

It appeared that most respondents were fairly familiar with local health care services. In this regard, the malaria camp came first (34.1%) for its proximity and because of the fact that the camp kept malaria treatment drugs such as Sulphadoxide Pyrimethamine. The camp however, could be used concomitantly with traditional healers and to both, members of the community went as lay referrals after self-help treatment in their families. Referrals were made from the Malaria Control Camp and traditional healers mostly to Ndumu clinic. Those to hospital were fewer and were generally the most complicated cases.

Community perceptions on malaria treatment by local health care services

Though less than half of the respondents, the majority of respondents (45.1%) held the view that the clinic could cure malaria. However, as many as 27.7% thought that the clinic was unable to cure malaria. As for the hospital on the same issue, many (71.1%) said they did not know because they had never been to the hospital. The reason for not going appeared to be mainly distance and its financial implications. However, those who had been to hospital admitted that it could cure

malaria. They only constituted 42.9%. The majority of respondents (65.9%) held the view that traditional healers could not cure malaria. They were aware however, that he/she could provide a temporary relief (thithibeza) but without lasting effects in the longer term. There were however, very few (5.8%) who said that they were cured by traditional healers. It appeared generally that for the respondents, "curing" meant "eradication". That was why, in the case of clinic and hospital, almost one fifth of the respondents doubted the ability of those services to cure malaria (Gumede 1990).

Community preferences about local health care services

The study found out that the majority of respondents (48.6%) tended to prefer the Malaria Control Camp for the first attendance. Those who attended the Ndumu clinic in the first place represented 28.9% whereas those who attended the hospital as the first place of attendance were only in 7.5% of cases.

It appeared that the Malaria Control Camp enjoyed the confidence of the local community with regard to malaria treatment. The camp was given credit for better treatment (34.1%) and better medicines (59.0). The camp's drugs, mainly chloroquine, were apparently widely known and were used alone or mixed with local herbal medicines for greater effect. The clinic came as second for its ability to diagnose (27.2%). Obviously in actual fact, the camp had not necessarily better medicines than the clinic. However, given the fact that the camp was closer and most likely attended in the first phase of malaria, the drugs given were effective. This made the patients conclude that the Camp had better medicine than the clinic and the hospital. Only 1.7% of respondents considered that the traditional healers could better treat malaria and almost none (0.6%) attributed them with magic. This suggests that malaria appeared to most respondents as a naturally caused disease which was simply challenging traditional healers' medicines. Further, the statistics pointed to the general view that none of the local health services could cure malaria once and for all and in a satisfactory manner.

Factors influencing people's preferences about local health care services.

The distance factor prevailed in the majority of cases (54.9%) followed in a much lesser extent by efficiency (30.6%) and financial affordability (3.5%).

The distance factor may suggest that even if it was not clearly stated, the traditional healers were the first to be consulted. Patients did not need to walk long distances to reach traditional healers, since 79.9% of respondents admitted that they were within a 30 minutes distance from them. One the contrary many stated that they walked to go the clinic or had to use taxis. Patients had to use taxis as well to go to hospital and this was a major factor preventing them from attending. Traditional healers were also widely used because they were part of the local family and social support system.

Service fee

The service fee ranges were apparently not very onerous, since the majority (55.9%) reported to pay less than three Rands. However, in some cases, the costs prevented malaria patients from going to hospital. One has obviously to take into account additional costs as well, such as transport fees and food expenses. It may be recalled that Ndumu's economic status was characterised by low cash income and high levels of unemployment. Chapter six gives an insight into the traditional healers service fee range, and it is difficult to reconcile (using a biomedical perspective) the treatment outcome and the distance travelled to a traditional healer (as according to Pretorius, 1992). The only evidence could be that of trying to find the "why" of the deviation from normal and what causes such a deviation (e.g. umeqo, umbhulelo). Ancestors are there to prevent and promote health, where there is a deviation from normal health; African societies look for someone who has been ordained to communicate with the former.

Collaboration between traditional healers and the malaria control team

The findings of the study about the community's perceptions about a possible collaboration between traditional healers and the malaria control team were mostly enthusiastic and positive. A large majority (86.7%) of respondents expressed their wish to see traditional healers and the malaria control team working together. Major advantages for such a collaboration were seen as: sharing of skills and competence, open choices for the members of the community, the end of mutual mistrust and denigration. All this was seen in the perspective of a combined effort against malaria and better health care provision in the area. Only 8.7% were against collaboration.

The most favoured form of collaboration was that malaria medicines be given to traditional healers (38.9%). These in turn could make them available to patients. It appeared also that a number of respondents wished that traditional healers may refer their patients to clinic (30.9%) or be taught how to diagnose (13.9%). Others wished to see any possible form of collaboration happening. However, a number of concerns and fears were expressed by the respondents. They seemed to pertain to such issues as: criteria in the choice of traditional healers to be entrusted with medicine, correct dosage, possible abuse of trust by some unscrupulous traditional healers who would ask for payment for medicine provided free by the camp, the involvement of female traditional healers, whether traditional healers would be allowed to take blood samples or not as is the case with the malaria control programme field workers, referrals to clinic without adequate infrastructure (roads, transports, telephones) and money for related expenses, mutual respect and consideration etc. Nonetheless, the majority of respondents were interested in joint ventures between the traditional healers and the modern system. This showed how important traditional healing appeared in their eyes. It also showed that they were well aware of the strengths of the modern system and the benefit collaboration would bring to the provision of health care in the community.

Finally, it appeared that the community was keen at the prospect of seeking the services of trained traditional healers (89.0%). This also supported the argument that traditional healers were considered as important elements of the local health care provision system. Thus, as it was done for the community, it was proper to investigate traditional healers ' knowledge, perceptions and attitudes with regard to malaria diagnosis and treatment. What did they know about malaria, how did they perceive their role in the control of the epidemic and how did they view their possible collaboration with the modern health system? These are some of the questions that the next chapter endeavours to answer.

CHAPTER SIX
RESULTS: THE KNOWLEDGE, PERCEPTIONS AND ATTITUDE OF TRADITIONAL HEALERS WITH REGARDS TO THE DIAGNOSIS AND TREATMENT OF MALARIA

6.1 Introduction

Chapter five unpacked the perceptions and attitudes of the community in relation to the diagnosis and treatment of malaria by traditional healers. The aim of this research is to determine the attitudes and perceptions of the community regarding the roles of traditional healers with regard to the diagnosis and treatment of malaria and to ascertain the role traditional healers have with regard to the diagnosis, treatment and control of malaria.

This chapter presents the results from the interview with the traditional healers, with a detailed statistical data and analysis. The chapter looks at the respondents' profile, service payment, knowledge of malaria as a disease, how it was diagnosed, how it was treated, how the clients responded to treatment, referrals, malaria as problem in the area, issues of collaboration between traditional healers and the Department of Health. At the end, a conclusion and recommendations are formulated.

6.2. Respondents profile

This section aims at identifying the respondents to the researcher's interviews. It describes their age, gender (table 6.1), training (table 6.2), experience (table 6.3) and their levels of literacy (table 6.4).

6.2.1 Age

The age of the traditional healers interviewed varied between a maximum of 70 years and a minimum of 25 years. The average age of the respondents was 48 years. This suggests that traditional healers are generally mature adults, fairly well immersed in their culture and worthy to be respected by the community.

6.2.2 Gender

Table 6.1 Gender distribution

Sex	Frequency	Percent
1. Male	49	70.0
2. Female	21	30.0

The majority of respondents (70%) were male, and 30% female. These figures are different from the male/female ratio found in the sample of households from the community interviewed. In the latter case, there were more females than males, reflecting the general gender distribution pattern of the area. The fact that there were more male than female traditional healers seems to be common in many African societies (MacCormack, 1986). This might be accounted for by the fact that traditional healing is generally associated with a role of authority more played by males than females in traditional patriarchal communities.

6.2.3 Training

Table 6.2 Formal training as a healer in years

Years	Frequency	Percent
0	4	5.7
1	3	4.3
2	7	10.0
3	46	65.7
4	6	8.6
5	1	1.4
6	1	1.4
9	1	1.4
55	1	1.4

Table 6.2 suggests that the majority of the respondents (65.7%) reported to have had three years of formal training. Those who reported having had two years of formal training represented 10%, whereas, 8.6% reported to have had 4 years of formal training. Taken together, the above figures give a share of 83.3% of respondents having had 2 to 4 years of formal training. One could then conclude that the general training duration to qualify as a traditional healer is three years. There are those (5.7%) who mentioned that they "grew up with traditional healing" ("ngakhulela kuyo imithi"). They considered that they did not have a formal training as such. While helping their parents (i.e. father, mother, uncle or aunt) who were trained traditional healers, they gained the knowledge and skills of healing.

To receive formal training and qualify as a traditional healer the prospective healer must be apprentice to a recognised practising traditional healer for a specific period of time.
Researchers in this field have confirmed that the training period varies from place to place and it depends also on the category of the prospective healer. (Ngubane,1977;Chavunduka,1978;

Gumede, 1992; Abdool et al, 1994). Hess. (1998) says "to qualify as a traditional healer one has to serve an apprenticeship between 1 and five years and the qualifications are valid in South Africa".

6.2.4 Experience

Table 6.3 shows that the highest proportion of the respondents (15.7%) reported to have an experience of 10 years as traditional healers. However, the respondent's experiences expressed in years is very variable between three years as the minimum and 55 years as the maximum The healer with 55 years experience grew up helping his grandfather and acquired knowledge and skill in the field. The average experience is 16.9 years. which seems to suggest that traditional healing is a life-time profession. The more experienced a traditional healer is, the more he can deal with the most serious problems of the patient, and the he is trusted and respected by the community.

Table 6.3 Experience as healer in years

Years	Frequency	Percent
3	2	2.9
4	3	4.3
5	4	5.7
6	3	4.3
7	2	2.9
8	2	2.9
9	1	1.4
10	11	15.7
11	1	1.4
12	4	5.7
13	1	1.4
14	2	2.9
15	5	7.1
16	3	4.3
18	4	5.7
20	1	1.4
23	2	2.9
25	1	1.4
28	3	4.3
30	2	2.9
31	5	7.1
35	1	1.4
40	2	2.9
45	3	4.3
45	1	1.4
55	1	1.4

From the above Table, it can be said that experience is important in the traditional profession.

6.2.5 Literacy of healers

Table 6.5(a): Literacy of healers in Zulu

Level of Zulu literacy	Frequency	Percent
1. Speaks	58	82.9
2. Speaks, read and write	12	17.1

According to table 6.5(a), most of the respondents (82,9) could speak Zulu. However, only 17.1 per cent, which was less than one fifth of the respondents could read and write Zulu, in addition to speaking it. This came with no surprise from the community of Ndumu was found to be having a high rate of illiteracy. (See Table 1.1)

Table 6.5(b): Literacy of healers in English

Level of literacy in English	Frequency	Percent
1. Cannot speak, read nor write	67	95.7
2. Can speak English	3	4.3

2: Can speak English ("Fanakalo" English)

Table 6.5(b) indicates that the highest share of respondents (95.7%) could not speak, read nor write English. Only 4.3% of the respondents reported to be able to speak a "Fanakalo English" i.e an approximate English mixed with their African languages. This again is typical in Ndumu, a remote rural area, described as highly illiterate.

Table 6.5(c) Literacy of healers in Tonga

Literacy in Tonga	Frequency	Percent
1. Can speak	30	42.9
2. Cannot speak	40	57.1

Table 6.5(c) shows that the majority of the respondents (57.1%) could not speak Tonga. However, the remaining 42.9% reported to be able to speak Tonga. In actual fact, as stated earlier, the language spoken in the area, is a mixture of Zulu (dominant), Tonga and Swazi. Thus, some people might not have been able to speak pure Tonga, but used Tonga and Swazi words when communicating.

6.3. Payment

This section provides an indication of how much the traditional healers charged for their services. Table 6.5.1 shows the fee ranges for the initial payment, whereas, table 6.5.2 indicates the fee ranges for supplementary payment. The former is paid at the beginning of the treatment. The latter is paid after the patient's recovery.

Table 6.5 Initial payment in Rands

Rands	Frequency	Percent
0	2	2.9
20	2	2.9
30	1	1.4
50	60	85.7
100	3	4.3
150	1	1.4
200	1	1.4

It appears from table 6.5.1 that in more than 85 per cent of cases, the fee charged by traditional healers as initial payment was R50. The actual Zulu term for initial payment is "imvula sikhwama" or "ugxa". This is money paid to ask the ancestors to open the traditional healers' diagnostic set, to appease them, to show respect or maybe food to give them energy to move around and trace and trace offenders tricks. It is some form of admission fee, a contractual agreement between the patients and the healer to say she (patient) is committed to what she is about to undertake, i.e. "ukwelashwa". To this end, the amount of R50 could be considered as the common amount charged for at the beginning of treatment. Other figures given have insignificant shares and can mostly likely be considered as exceptions. . Healers use team approach, and alliance involving a

number of family of ancestors, e.g. if the patient is married, her family of origin members as well as her in-laws join hands and help afford the healer unique wisdom.

Table 6.5.2 Supplementary payment in Rands

Rands	Frequency	Percent
0	6	8.6
40	1	1.4
100	2	2.9
200	1	1.4
300	1	1.4
400	3	4.3
500	14	20.0
600	10	14.3
700	2	2.9
800	7	10.0
900	1	1.4
1000	22	31.4

As table 6.5.2 outlines, supplementary payment was very variable. Most respondents (31.4%) reported to charge around R1000 for their treatment. Another 20% reported to charge R 500 and 14.3% said that they charged R 600. A further 10% of the respondents reported to charge R 800. A proportion of 8.6% reported to charge nothing as a supplementary payment. It seems as if there was no common amount emerging for supplementary payment. One might consider that it all depended on such varied factors as how complicated the illness was; the effort of the traditional healer in terms of labour associated to treatment; how many days the patient was kept at the traditional healer's home, whether or not it was the traditional healer who looked after the patients or his/her family, etc. Nonetheless, the fee range for supplementary payment appeared very high and unaffordable for a community characterised by high levels of poverty, low wage incomes and widespread unemployment. It is important to note that during the interviews, all traditional healers observed that once the diagnostic set is opened, it is not only for the individual who is suffering, but for the whole family. Likewise, the therapeutic programme is designed for the whole family. For a period of a year or more, the family would receive some medicines without any extra payment.

This in line with what Rothwell, (1999) discovered from the Upper Tugela Valley. Inyangas

charged at R40.00 for the initial payment and R500.00 to R1000.00 and upwards for the complete session. The completion fee is not paid on discharge as in a hospital setting, but the patient may, as and when she is ready, bring money "inkomo", e.g. in case of infertility or sub-fertility, the patient pays "inkomo" after delivery when the baby is about three months old. It becomes a thanks-giving ceremony. One healer said the initial fee opens a file for all family members including the unborn, "isisu sonke", i.e. throughout one's fertility.

6.4 Knowledge of malaria

This section investigates the traditional healer's knowledge of malaria. Table 6.6 shows how they defined malaria and table 6.7 indicates what the respondents considered as malaria causes. Table 6.8 reports on whether the respondents could differentiate malaria from other diseases (signs and symptoms), and finally, table 6.9 shows how this difference could be determined by the respondent's experience.

Table 6.6 Healers' identification of malaria

Identification of Malaria	Frequency	Percent
1Umbhulelo	13	18.6
2. Disease	54	77.1
3. Ilumbo	1	1.4
4. Other	2	2.9

It appears from table 6.6 that the majority of the respondents (77.1%) had a good knowledge of malaria as a naturally caused disease. A further 18.6% said that malaria was a result of "umbhulelo". This latter term refers to the "technique of placing harmful medicines over which people step, therefore contracting a condition known as "umeqo" (Ngubane, 1977). During the stepping over, the ailments of the disease enter the person through the joints of the body. This is why incisions (gcaba) are made on the joints in order to introduce the medicine directly into the affected part (Ngubane, 1977, Gumede, 1990). Only 1.4% said that malaria was "ilumbo". This

term, according to Conco (1972), means a mysteriously divined condition. It is a consequence of an evil act against somebody, by a night sorcerer. Those who said that they did not know represented 2.9% (other category).

The statistics above suggest that more than three quarters of the respondent had a good knowledge of malaria as a natural disease caused by an external agent. Those who attributed malaria to supernatural causation put together represented only about one fifth of the respondents. Those who said that they did not know felt that since neither the natural medicine nor the supernatural medicines worked on malaria, it was difficult to identify its real causation.

Though they (77.1%) agreed that a mosquito caused malaria, but they were concerned about the ancestoral protection "why are the ancestors quiet", i.e athuleleni amadlozi (Conco, 1972; Ngubane, 1977; Gumede, 1990; Namwaya, 1992). Chapter four suggested that it is African belief that when ancestor's protection is no longer or minimal, diseases strike.

Table 6.7 Causes of malaria for healers

Causes of malaria	Frequency	Percent
1. Mosquito	67	95.7
2. Bad food	0	0
3. Ilumbo	1	1.4
4. Other	2	2.9

The data in table 6.7 show that almost the totality of the respondents (95.7%) said that a mosquito caused malaria, suggesting that a mosquito bite was poisonous and could cause a disease. No respondent said that malaria was due to bad food. Only 1.4% of the respondents said that malaria was due to "Ilumbo" and 2.9% reported that they did not know, mostly because no medicine seemed to eradicate it.

These data are consistent with those given is the table 5.7, showing the highest percentage of

respondents reported that malaria was due to a natural causation. Under the category of "other" came those who reported that they did no know whether malaria was caused by a mosquito or "ilumbo". Bad food was simply not connected to malaria and this contradicts what came out from conversation with some community respondents, who said that malaria might be due to the kind of food eaten. Some of the traditional healer respondents had also mentioned the lack of toilets and unsafe water as possible causes of malaria. This mention was due to the fact that malaria has diarrhoea among its symptoms. Since diarrhoea was suspected to be associated with contaminated water due to poor sanitation as mentioned in Chapter One, some respondents thought that malaria had some connection with the lack of toilets and unsafe water. They were worried saying that it is difficult to distinguish between malaria and any other diarrhoeal disease. All this suggests that traditional healers had a better knowledge of malaria than the common community members.

Table 6.8 Ability of healers to differentiate malaria from other diseases

Difference of malaria to other diseases	Frequency	Percent
1. Yes	67	95.7
2. No	2	2.9
3. Other	1	1.4

As table 6.8 indicates, almost all the respondents (95.7%) said that they could differentiate malaria from other diseases. Only 2.9% said that they could not and 1.4% reported that they were not sure if they could or not. In some cases they could but in others they could not. What seem to be clear however is that almost all the respondents had a good knowledge of malaria and could differentiate it from other diseases. Those who reported that they did not know argued that malaria came like other "mikhuhlane", with the feeling cold and hot, which made it very difficult to distinguish it from common influenzae.

Table 6.9 Symptoms used by healers to differentiate malaria from other diseases

Symptoms	Frequency	Percent
1. Hot and cold fever	70	100
2. Loss of sight	0	0
3. Crying	0	0
4. Other	0	0

Table 6.9 shows that all the respondents reported that malaria was to be differentiated from other diseases by hot and cold fever. This suggests that the dominant symptom in the area were being hot and cold.

6.5 Diagnosis

This section investigates the way traditional healers could diagnose malaria. Table 6.10 presents the respondents views on whether they could or could not diagnose malaria. Table 6.11 indicates how this diagnosis is made.

Table 6.10 Ability of healers to diagnose malaria

Can Diagnose	Frequency	Percent
1. Yes	69	98.6
2. No	1	1.4

Almost 90% of the respondents reported that they could diagnose malaria. Only 1.4% said they could not diagnose malaria. There was no other response given. There is a consistency between this and the data earlier presented about the knowledge of malaria. Since the majority of the respondents said malaria was due to natural causes, and could differentiate it from other diseases, it was implied that the majority could diagnose it.

Table 6.11 Techniques used by healers to diagnose malaria

Technique for diagnosis	Frequency	Percent
1. Throw bones	2	2.9
2. Signs & symptoms	66	94.3
3. Other	2	2.9

As indicated by table 6.11, almost 95% of the respondents reported that they diagnosed malaria by its signs and symptoms. A symptom is any morbid phenomenon or departure from the normal in function, appearance, or sensation, experienced by the patient and indicative of disease. A share of 2.9% said they threw bones and combined bone throwing and signs and symptoms, to exclude "ukufa kwabantu". **Ukufa kwabantu** is a traditional African theory which literally means "diseases of the African people". Ngubane1977:24 explains the concept as "the name used mainly because the philosophy of causality is based on African culture……". Here again, the great majority of traditional healers diagnosed malaria by its signs and symptoms, confirming then that it was due to a natural causation (refer to table 6.9).

6.6 Treatment

This section deals with the issue of malaria treatment. It assesses whether traditional healers were able to treat malaria (table 6.12) and how they actually treated it (table 6.13).

Table 6.12 Ability of healers to treat malaria

Ability to treat malaria	Frequency	Percent
1. Yes	11	15.7
2. No	53	75.7
3. Other	6	8.6

Table 6.12 shows that only 15.7% of the respondents said that they could treat malaria. Three quarters of the respondents (75.7%) felt that they could not treat malaria. Those under the category "other" (8.6%) reported that they actually tried but where not sure if what they used could or not cure malaria. They called malaria "isifo sabeLungu" not "isifo sabantu or sesiZulu", since it could not respond to traditional medicine. These results are consistent with the views expressed by the community when asked if the traditional healer could cure malaria. The same reasons given by the community seem to apply here. For the traditional healer and for the community, "to cure" means to "eradicate". Traditional healers admitted that their medicine could only "thithibeza", i.e. to provide a temporary relief. However, some patients could go back home with the temporary relief without being transferred to clinic. This might explain why cases of malaria incidence reported at the clinic were small. Scambler (1991) says, "apart from simply ignoring symptoms, another alternative to consulting a Doctor or pursuing some form of self care or self help is to rely on alternative or non-orthodox therapies". This suggests that when the Malaria Programme Control officer (orthodox medicine) is not available and the clinic is in accessible, the community is left with two choices:(1) Traditional Medicine and (2) Self Help or a "temporary" relief. (See Figure 4.1 Local referral system).

Table 6.13 Techniques used by healers to treat malaria

Tecniques	Frequency	Percent
1.Herbs	58	82.9
2.Rituals	0	0
3.Prayer	0	0
4.Other	0	0

Table 6.13 indicates that the majority of the respondents (82.9%)reported that they used herbs to treat malaria. Although in the previous table the majority of the respondents had said they could not cure malaria, here, they admitted to using herbs to treat. This means that with herbal medicines, they did try what they could to provide a temporary relief,("thithibeza") to their clients. Two treatment procedures were reported: (1) "umphungo-isicoco" and (2) "gquma".

(1)"Umphungo-isicoco" refers to a mixture of herbs crushed and boiled and given in small doses to the client to sip from time to time (Conco, 1972, Ngubane, 1977). Some respondents reported to have added chloroquine in this mixture, to make it stronger and more effective. This helped the client but all depended on whether the disease was still in the first stage or rather in the chronic phase. In the former case the medicine worked better whereas in the latter, the medicine was less effective.

It appeared that non-complicated malaria cases were generally treated at home, by this kind of treatment. As reported "uma umukhuhlane usemusha siyawunqoba", i.e "the un-complicated malaria is easy to treat". It is only when patients could not respond that they were transferred to the traditional healer or to the clinic.

(2)"gquma" refer to a steam bath to induce perspiration and reduce fever. The patient is made to kneel naked over a pot containing a boiling hot mixture of herbs. Traditional healers reluctantly as

compared to the community respondents cited the following herbs and collectively called them **amakhambi omkhuhlane ibazo, umaphungula, umphugagazi, umanono, ungazini, uma"thithibeza",** hence "temporary relief".

This study concurs with Conco (1972), Ngubane (1977) and Gumede (1990) and Hutchings (1996) that **amakhambi omkhuhlane** are herbs used for high fevers to offer relief for colds, general muscle pains, decongest congested sinuses and to cleanse the body systems "ukugeza igazi". These were used not only for "gquma" but also for fomenting treatment "ukuthoba", to ease the muscular pains that were cited by some respondent as a malaria symptom. In this latter case, a mixture of herbs is boiled and allowed to cool a little so that it does not scalp the skin when it is applied to the sore part. A poultice is deepened into the hot medicine and pressed on the affected part of the body.

A share of 17.1% represented those respondents who had never tried any treatment of malaria patients. In such case either the patients moved to the next traditional healer or were referred to the clinic.

6.7 Clients response to treatment

This section deals with how the clients responded to the traditional healers' treatment. (table 6.14). The symptoms which were the most difficult to treat, (table 6.15) and those which were the easiest (table 6.16) to treat. And finally, the length in days that the treatment lasted (table 6.17).

Table 6.14 Clients' response to healers' treatment

Response to treatment	Frequency	Percent
1. Got better	10	14.3
2. Do not respond	36	51.4
3. Other	24	34.3

Table 6.14 shows that a share of 14.3% reported that their clients did not show any symptom of malaria after treatment. They got better but this did not actually mean that they were cured. As most said, this percentage might be the patients who got the temporary relief "thithibeza" from traditional healers. More than half of the respondents (51.4%) reported that their clients did not respond at all. In other words, their medicine did not produce the desired effects. A share of 34.3% came under the category "other". These were respondents who said that they actually had never treated malaria cases because they knew that their medicine were simply not efficient.

Nonetheless, the data above suggests that the majority of the patients did not respond to the traditional healers' medicine.

Table 6.15 Most difficult symptoms to treat for healers

Difficult symptoms	Frequency	Percent
1. Fever	42	60.0
2. Headache	2	2.9
3.Dehydration	12	17.1
4.Other	14	20.0

Table 6.15 shows that the highest percentage of the respondents (60.%) reported that fever was the most difficult symptom to treat. The next difficult symptom to treat was dehydration as reported by 17.1% of the respondents. Only 2.9% of respondents said that the most difficult symptom to treat was the headache. The category "other" comprised those respondents (20%) who initially reported that they could not treat malaria and therefore were unable to talk about difficult symptoms to treat. They said that they did not even "touch" malaria patients, they send them to clinic " angibathinti ngibadlulisela e kliniki".

These data suggest that fever was the most recurrent symptom of malaria in the area (Brady, 1991). Fever is characterised by periods of elevated temperature, rigours, headache and

dehydration. This appeared as a challenge for the traditional healers. They failed to treat rigours. On the contrary, headache did not seem to be a great problem for traditional healers. They reported that "insizi" normally treated headaches in a successful way (for definition see table 6.16 below).

Traditional healers, during their interviews, suggested that the then prevailing malaria symptoms were getting stronger and stronger. This points to the problem of malaria resistance in the area, as described in chapter two. Some respondents said that "lomalaleveva sekunzima ukuwelapha akusafani nakudala, lapho besihlanganisa loku nalokuya isifo selaphele" saying the current type of malaria is difficult to treat, it is not like the previous type, we used to add this and herb and treat the disease. However, the community still utilised the services of traditional healers. This seems to be the reason why some community respondents expressed the wish that "kungabangcono kuma izinyanga zinganikezwa amanzi 'edrip". This was to say that the clinic should supply traditional healers with "drip water", "sorol". (rehydrating solution) to rehydrate their clients, especially babies and pregnant mothers. The community respondents conveyed the concern that "Izinyanga azikwazi ukubuyisela amanzi emzimbeni", i.e. traditional healers do not know how to replace the lost fluid in the body.

Table 6.16 Easiest symptoms for healers to treat

Easiest to treat	Frequency	Percent
1. Fever	6	8.6
2. Dehydration	4	5.7
3. Headache	50	71.4
4. Other	10	14.3

It appears from table 6.16 that the majority of the respondents (71.4%) reported that headache was the easiest symptom to treat. This figure is consistent with the information provided by table 5.16 and the stories from the community. The category under (14.3%) were those who did not treat malaria patients and those who felt that all the cases were difficult to treat, following the malaria resistance problem. Fever and dehydration appeared to be the least easy to treat, with shares of 8.6% and 5.7 % respectively.

Traditional healers seemed to be confident about the way they treated headaches. Two methods of treatment were cited: (1) "izinyamazane" and (2) "insizi".

(1) Izinyamazane refer to medicines derived from wild animal skins in the form of fat, pieces of skin and feathers. They are mixed with "amakubalo" (dried barks and roots), and burnt in a clay pot. The patient kneels over, covered by a blanket, and inhales the smoke.

(2) Insizi is a powder produced from charred herbs, roots or animal skins given to patients to lick and swallow. Traditional healers reported to have mixed "amakhambi omkhuhlane" that is fever herbs from all types of fever trees/shrubs with animal skins to treat their patients.

Table 6.17 Duration of healers' treatment

Duration in days	Frequency	Percent
1. < one day	7	10
2. Two to four days	17	24.3
3. Five to seven days	23	32.9
4. Eight to ten days	11	15.7
5. Other	12	17.1

Table 6.17 shows that most respondents (32.9%) reported that they kept their clients for a period of five to ten days. A lesser period was two to four days and respondents who reported keeping their patients for such a period accounted for 24.3%. A share of 17.1% of the respondents mentioned that they had referred their patients before they gave any treatment. They did not touch them. Those respondents who fell under 'other" (17.1%) could not tell exactly how many days they kept their patients, although they had kept them for a while, doing the "thithibeza". Some respondents (15.9) reported to have kept clients for treatment before referral for approximately eight to ten days. Those who said they kept their patients for less than a day constituted 10.0%.

These statistics suggest that the traditional healers did keep the patients in their homes, or started with treatment before referral to a clinic or to hospital. Put together, 76.9%, i.e. more than three quarters of respondents, reported having kept patients for treatment before any referral was made. This shows how traditional healers represented a first-stop group of local health providers. The above high percentage could also be explained by other sociological factors. Some of them were that the traditional healer gave full support, food, and a family environment to the patients. The researchers opinion is that the traditional healers' home may also be a shelter for protection in the case of (delegated by husband) female-headed household patients where the head of the household migrated to cities to seek employment and the trusted and respected person within 30 minutes walk is the former.

However the practice of keeping patients in their homes for treatment has its less pleasant side. Cases of deaths in the houses of traditional healers were reported in the previous chapter, by community respondents. In this case, the family of the patients paid a cow to cleanse the traditional healers's home.

6.8. Referrals

This section presents data related to the referral of patients to other health services (table 6.18), time when referrals were made (table 6.19), type of patients referred (table (6.20) type of health referred, whether clinic (table 6.21) or hospital (table 6.22), the reason for referral of patients to clinic (table 6.23) or to hospital (table 6.24) and the frequency of referral(table 6.25.

Table 6.18 Practice of referrals to hospital or clinic by healers

Referred to health services	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1.Yes	69	98.6	69	98.6
2. No	1	1.4	70	100.0
3. Other				

Almost all respondents (98.6%) admitted that they referred patients. As indicated by table 6.18, the referrals were made after a varying period of time, all depending on whether malaria was complicated and on what kind of symptoms were presented by the patient. Only one respondent said that he did not refer, alleging that he had actually stopped practice.

Table 6.19 Timing of referrals by healers

Timing	Frequency	Percent
1. Immediately	19	27.1
2. Treat and refer	50	71.4
3.Other	1	1.4

Most respondents (71.4%) reported that, they kept the patients for a certain period before referring them elsewhere. A share of 27.1% said that they referred patients immediately. Some of them observed however, that referrals remained a complicated issue because of some factors beyond local people's control: inadequacy of such infrastructure as roads, lack of transport means and poverty. In certain cases, it appeared that referral by some traditional healers to the clinic and hospital were not observed. Patients might simply have gone to the next traditional healer in order to avoid the cost and hardship associated with referrals. In any case traditional healers offered "first aid" treatment and sent them to a clinic or hospital. Some reported that they even paid from their own pocket for transport, to prevent clients from dying in their homes: "ngoba abantu abanayo imali siyabateta sibase eklinik... noma sikhokhele izimoto kwesinye isikhathi ayibuyi leyomali". Others said that they had used wheelbarrows or had carried the helpless clients on their backs. Only one respondent said that he no longer treated malaria cases.

Table 6.20 Type of patients referred by healers

Type of patient Referred	Frequency	Percent
1. Very ill	31	44.3
2. not responding to treatment	35	50.0
3. Other	4	5.7

It appears from table 6.20 that most of the respondents (50%) referred patients who did not respond to treatment. Those who referred very ill patients represented 44.3%. Only 5.7% reported to have not attended to a patient with malaria.

Table 6.12 (ability of traditional healers to treat) and onwards suggested that though most of the traditional healers reported not being able to treat malaria, they did keep patients, trying their herbal medicines. This then is confirmed by the results presented in this last table (6.20). Referred patients were not those who were very ill but those who did not respond to the treatment. This means that the traditional healers did keep patients at home for a certain period before they could be referred.

Table 6.21 Clinic referred to by healers

Clinic	Frequency	Percent
1. Ndumu	60	84.2
2. Madeya	6	8.5
3. Mbadleni	3	4.4
4. Spolipoli	1	1.4

The highest share of the respondents (84.2%) which was more than four fifths of the respondents, reported to have referred their clients to Ndumu Clinic. Those who referred to Madeya represented 8.5%. Those who reported to have referred their patients to Mbadleni were 4.4% whereas only 1.4% reported to have referred their clients to Spolipoli. This is no surprise since Ndumu was the only clinic in the area at the time of the study. Thus the clinic was the only secondary level of health care in Ndumu. Other clinics had much lower shares of preferences compared to Ndumu. These other clinics only started functioning towards the end of the present study date. Some respondents did not know that the other clinics were functioning. All the clinics except Ndumu functioned on part time bases since they were open only once a month.

Table 6.22 Hospitals referred to by healers

Hospital	Frequency	Percent
1.Ingwavuma	12	17.1
2. Ubombo	58	82.9
3. Other	0	0

A very high percentage of respondents (82.2%) reported that they had never sent their clients to hospital. Only the remainder of 17.1% represent the respondents who reported to have referred their patients to Ingwavuma.

This suggests that the hospital was out of reach from the community. Therefore, cases referred to hospital were very few and consisted of complicated cases, mostly children and pregnant women. Another fact is that the hospital required a referral letter from the clinic. Thus it may be said that traditional healers preferred to send their patients to the clinic. Given the fact that transport is a problem in the area, going to hospital was very difficult.

Table 6.23 Reasons to prefer clinic by healers

Reason	Frequency	Percent
1. Nearer	67	95.7
2. Cheaper	2	2.9
3. Nurses like it that way	0	0
4. Other	1	1.4

Almost all the respondents (95.7%) reported that they referred to clinic because the latter was nearer. It has to be noted however that for the respondents, nearer could mean about 10 km. Map 2.6 showed that some units of Ndumu were as far as 20Kms from Ndumu clinic. The respondents were aware of how painful such distances could be to walk on hot summer days along sandy roads or paths with shrubs to duck. Patients were said to arrive at the clinic with painful muscles, dehydrated and suffering from severe headaches. When the whole family was affected, mothers could not even carry their children. Only 2.9% of the respondents referred to clinic because it was cheaper and 1.4 was under the category "other", which did not treat malaria cases and therefore did not have to refer their patients for treatment.

Table 6.24 Reasons for hospital preference by healers

Hospital preference	Frequency	Percent
1. Clinic does not treat malaria	1	1.4
2. Patients wait for ambulance	53	75.7
3. Have to hire a car to hospital	16	22.9
4. Other	1	1.4

A bit more than three quarters of the respondents (75.7%) reported that they had to hire a car to take the patient to hospital. This then made them prefer the clinic, because of the easy access. Let alone the fact that financial means are not available to pay for transport, transport means as such are also a big problem and finding a car is not easy. A share of 22.9% as "other" was those who did not think of referring a patient to hospital because of the problems already expressed. In this case traditional healers represented the easiest option to the community. Only 1.4% of the respondents said that the clinic could not treat malaria.

Table 6.25 Frequency at which referrals to clinic or hospital were sent by the traditional healer

Frequency	Frequency	Percent
1. Daily	10	14.3
2. Monthly	2	2.9
3. Yearly	0	0.0
4. Other	58	82.9

The highest share of the respondents 82.9 % reported that it was actually difficult to tell. For them it depended on whether the patient was very ill, in which case he/she was treated and referred or whether he/she was not responding to treatment, in which cases they were sent to clinic or hospital. A further 14.3% of respondents reported they referred daily, linking with table 5.18 where respondents reported that their treatment lasted for less than a day. Only an insignificant share of 2.9% reported that they referred monthly.

6.9 Malaria as a problem in the area

Under this section, the study deals with the issue of malaria as a problem in the area. Table 6.26 shows whether the respondents perceived malaria as a problem; table 6.27 shows the reasons for it being such and table 6.28 depicts the prevalence whether malaria was perceived as seasonal or not.

Table 6.26 Healers' perception of malaria as problem in their area

Healers perception	Frequency	Percent
1. Yes	70	100.0
2. No	0	0.0
3. Other	0	0.0

The totality of the respondents reported that malaria was a problem in their area. That was no surprise since as said earlier: Ndumu has the highest malaria case incidence in Ingwavuma district as well as in Kwazulu Natal (see figure 2.2). In turn, Ingwavuma (together with Ubombo district) has the steadiest growth of malaria case incidence in the province and in the country as a whole (Sharp and le Sueur, 1996).

Table 6.27 Reasons for healers to perceive malaria as a problem

Reasons	Frequency	Percent
1. Difficult to treat	47	67.1
2. People die	18	25.7
3. Doctors cannot treat it	3	4.3
4. Other	2	2.9

The majority of the respondents (67.1%) saw malaria as a problem because it was difficult to treat. As said earlier, malaria symptoms, mostly fever and dehydration are difficult to treat. Very few traditional healers reported being able to treat fever. Most admitted they could only provide a temporary relief (thithibeza). The community as well stated that the traditional healers could only "thithibeza". A share of 25.7% of respondents admitted that malaria was a problem in the area because people died. Because of the high level of malaria cases in the area, one can assume that

the death cases from malaria are considerable (See Figure 2.2 on malaria cases in different areas of Ingwavuma). The remaining 4.3% said that doctors could not treat malaria. This may be added to the percentage of those who said that malaria was difficult to treat, giving a total of 71.4 %. Of those who saw malaria as a problem for whatever reason, only 2.9% felt that malaria was a problem because its pattern had changed over the years, getting more and more resistant to the usual treatment.

Table 6.28 Healers'view about malaria prevalence in the area

Prevalence	Frequency	Percent
1. Seasonal	11	15.7
2. Throughout the year	54	77.1
3. Other	5	7.1

In Table 6.28 most of the respondents (77.1%) reported that malaria was present in the area throughout the year. It is worth to note here that the year 1996 (when the interviews were conducted) had the highest malaria incidence in the area since 1993 (see table 2.5). This might have influenced the responses. Contrary to the view that malaria was present in the area throughout the year are findings by studies such as one conducted by Ngxongo (1993). For the latter, malaria in the area was seasonal, with highest disease prevalence rate in April, May and June as a consequence of the January to April rainfalls. There was however, a share of 15.7 % of the respondents who admitted that malaria was seasonal. A further 7.1% represent those who said that it was difficult to tell wether malaria was seasonal or was present throughout the year. For them, malaria was confusing and its epidemiological pattern could not be identified.

10. Collaboration

This section deals with the issue of collaboration between the traditional healers and the KwaZulu-Natal Health Department. It investigates first whether traditional healers would be willing to be involved (table 6.29); second, how they would like to see the collaboration taking

place (table 6.30); third, the areas of possible common venture (table 6.31): the way they would wish to see the established collaboration encouraged (table 6.32) and finally the way in which traditional healers think information about their patients should be kept and exchanged (tables 6.33, 6.34 and 6.35).

Table 6.29 Desire for or against collaboration with the Health Department in regard to scientific diagnosis of malaria

Reasons for or against	Frequency	Percent
1. Yes	69	98.6
2. No	1	1.4
3. Other	0	0

As shown by table 6.29, almost the totality of the respondents (98.6%)reported that they would like to collaborate with the Department of Health in regard to scientific diagnosis of malaria. This meets what was expressed by the community about collaboration with the modern medical system. Only 1.4% per cent said "no" to the idea of collaboration.

Table 6.30 Desired form of collaboration by healers

Form of collaboration	Frequency	Percent
1. Meetings	10	14.3
2. Referrals	32	45.7
3. Treatment of malaria	24	34.3
4. Diagnosis	3	4.3
5. Other	1	1.4

Most of the respondents (45.7%) felt that collaboration could be practised through mutual referrals. Mutual referrals were considered as a sign of recognition and respect. One respondent commented that: "if a patient dies in my house, it is considered that he/she was killed by my 'muthi' (medicine) but if he/she dies at clinic or hospital, he/she is dead, not killed!" And he noted: "death is death, whether it occurs in clinic, hospital or at the traditional healer's home". In this context, mutual referrals were welcomed because they could constitute a sign of equality and interdependence between traditional and modern medicine. The second highest form of collaboration desired by the respondents was in treatment of malaria (34.3 %). This latter form of collaboration was given prime importance by the community. Those who expressed that meetings could be a form of collaboration represented 14.3%. Only 4.3% expressed that collaboration could take place through the diagnosis of malaria. Only 1.4% did not express anything about collaboration but had nothing against it.

Table 6.31 Healers' preferences about possible collaboration ventures

Collaboration Venture	Frequency	Percent
1. Do Parasight/F Test	23	32.9
2. Keep treatment for malaria in your home	39	55.7
3. Other (Explain)	8	11.4

Most of the respondents (55.7 %), reported that they would like to collaborate in keeping prophylactic medicines. In saying so however, some respondents feared that patients would flock in their houses in big numbers, disturbing their practice: "sizokwenzenjani uma umalaleveva ehlasela ngoba izinkumbi zabantu zizoza emizini yethu ukuzolanda amaphilisi". Some others also giving out free drugs would somehow have a negative effect on their normal charging services: " Sizohlukaniselana kanjani umsebenzi ukuze kungatholakali abanye beqhubeka bathola imali, abanye besebenzela imahala?" The following 32.9% expressed that they would like collaborate doing Parasight F Test(simple home testing for malaria). It may be recalled here that the community expressed reserves about what was going to happen with the drop of blood taken by the traditional healer. A further 11.4% of respondents reported to be for both of the above forms of collaboration.

Table 6.32 Healers' view about ways co-operation may be encouraged by the Health Department

Ways of co-operation	Frequency	Percent
1. Registration	14	20.0
2. Policy	50	71.4
3. Representation	1	1.4
4. Other	5	7.1

The highest percentage of respondents (71.4%) reported that they would like to see collaboration encouraged by policy. A structure stipulating lines and forms of communication was very important, since they did not go to school and had other disadvantageous factors on their side. Some said that they could not trust the "whites" if there was no structure. For them, behind the issue of collaboration, the "whites" might be hiding their own interests, saying: "angeke ubaqonde beLungu, mhlawumbe, kukhona abakusophile". Nonetheless, most respondents felt that collaboration would be a positive move. Some reported in their conversations, that nurses had preferences when dealing with patients referred to clinic by traditional healers. They alleged that patients referred by well known and famous traditional healers received the best reception. Those referred by less famous traditional healers could stand in the queue for more than two hours, even if the patient was very sick. Traditional healers felt that one referral was equal to another, since it was always people's lives involved: "Onesi bayakhetha. Izinyanga abazaziyo bazemukela ngokushesha azilindi, bese kuthi izinyanga abangazazi bazibukele phansi noma isiguli sixakeke kangakanani". A structure would thus help to avoid all these complaints. The structure would also help look at certain issues such as possible Government subsidy.

Since they could not provide their services free (like the free "pilisi" provided by camps), the question of potential subsidy from the government would be looked at within the structure. They were sceptical about the subsidy however, saying that it would bring some form of restriction or

dictation by the government, implement rules restricting their practice.

A further 20% reported that registration would be a way to encourage collaboration. However, they stated that it would be a problem to pay a subscription fee. They also felt that subscribing would be a way to "belong" or to be incorporated in the modern medical system. Therefore, they were for a form of collaboration which would bring together common efforts for the same goals, but without any of the partners dictating what to do and how it has to be done. For them, "ukubambisana kuzobakuhle uma siqonde ukusiza umuntu ogulayo hayi ukucwasana ngokuhlakanipha nolwazi", i.e. the aim of partnership should be to assist the sick person, and not to claim power or skill over the other party. Concerns were expressed that doctors did generally look down upon traditional healers and doubted about the fact that mutual referrals could easily become common practice. They considered however, that a human being's life is so precious that everything to save it should be undertaken and prevail over personal interests. They said that when a person dies he/she cannot be replaced like a cow for instance: "bayakhohlwa ukuthi angeke umthenge umuntu. Umuntu akasiyo inkomo ethi uma ifile uthenge enye".

Subscriptions brought out also the problem of finding cash money to pay, from a community which is mostly poor and unemployed.

Representation did only get a negligible support of 1.4% while "other" represented 7.1%. These those simply said that they did not know which way the collaboration should take.

Table 6. 33 Healers' view about keeping their patients' records

Keep records	Frequency	Percent
1. Yes	70	100.0
2. No	0	0
3. Other (Explain)	0	0

The totality of the respondents reported that they would like to keep a record. Some of the traditional healers had actually started keeping the records of their patients such as Mr Mali Gumede. There were some who expressed concerns however, as for instance to how they would keep the record without being able to read and write. Some also said they would like and would keep the names in their mind. Others said they would count on their children at school to write down the names of their patients. Some others wished also that the field workers come around to collect verbal records from time to time. The main concern expressed was that they get educated. There was actually an adult education programme going on in the area by the time of the study. It was initiated by the traditional healer Mr Mali Gumede supported by local teachers. He also kept a record of cases attended by him.

Table 6.34 Healers' opinion as to how records may be kept

Recording	Frequency	Percent
1. Keep a register'	68	97.1
2. Keep cards	0	0
3. Other	2	2.9

Almost all the respondents (97.1) reported that they would like to keep a record by keeping a register. This drives back to the concern of most of the respondents that they had to be empowered in such a way that they become able to keep the register up-to-date. No one wished to keep cards, and only 2.9% said they did not know.

Table 6.35 Healers' view on transmission of information to the Health Department for notification of their cases

Notification method	Frequency	Percent
1. Meetings	22	31.4
2. Give community workers	10	14.3
3. Give to clinic	34	48.6
4. Other	4	5.7

Most of the respondents (48.8%), reported that they would be prepared to give their records to the clinic. The following highest share (31.4%) represented those who said that information could be transmitted through meetings with the community health workers, the camp personnel and the field workers and nurses. A further 14.3% said that the records should be given to the field workers. This small figure might be accounted for by the fact that the community health workers were not in sufficient numbers in the area. Those coming under the category "other" are those who reported that they did not know or did not even believe that traditional healers would be given a chance to collaborate with the modern medical system.

6.11 Summary of findings

Respondents' profiles

The demographic profile of the respondents indicated an average age of 48 years, with a minimum of 25 years and a maximum of 70 years. This suggested that traditional healers were generally mature adults well immersed in the local culture and respected by the community. Although females were found among the respondents, males were dominant. A ratio male/female of 7:3 was found. Traditional healing appeared therefore associated with the role of authority, mainly played by men in traditional societies. This was even more apparent in Ndumu where it was earlier indicated (see Chapter two) that there was shortage of men due to labour migration into cities.

It appeared that training took 2 to 4 years in the majority of cases (83.3%). However, in some cases training was a lifetime experience, undergone as an apprenticeship since early childhood. The average experience was of about 16.9 years, with most of the respondents having more than ten years experience.

A share of 42.9% could speak Tonga. Most respondents (82.9%) were Zulu speaking. However, only 17.1% could actually read or write the language. Almost all (95.7%) could not speak, read or write English. This reflected the high level of illiteracy in the population of Ndumu in general, and especially in the older generations. This has implications for the health status for the community and on possible policy measures to be taken in order to improve the provision of health care in the area.

Service fee

Most traditional healers (85%) charged R50 an initial payment for their services. As for supplementary payment, it was variable.

It could go up from nothing (in some cases) to R1000. All depended on the severity of the disease, the duration of treatment, whether or not the traditional healer looked after the patient in terms of accommodation and food etc. This figure was obviously very high and apparently out of reach for the community. Traditional healers justified the high cost by the fact that the diagnostic set is not only open for the individual who was sick but also for all his family for a period of a year or more.

Exposure to malaria

As indicated by the finding of other studies, malaria is epidemic in the area. In terms of personal history with regard to malaria, the study found that more than 89% of the respondents were suffering from malaria during the interview of had actually suffered from it within a month before. This means that they could talk "knowledgeably" about their malaria experiences.

Familiarity with local health care services

It appeared that most respondents were familiar with local health care services. In this regard, the malaria camp came first (34.1%) for its proximity and because it kept malaria treatment drugs such as chloroquine. The camp however, could be used concomitantly with traditional healers, and to both, members of the community went as lay referrals after self-help treatment in their families. Referrals from camp and traditional healers went mostly to Ndumu clinic and lastly to hospital.

Knowledge of malaria

Most respondents showed more than the average level of information in the area about malaria as indicated by as a naturally caused disease (Gumede,1990). The majority of traditional healers interviewed (77.1%) knew that malaria was a naturally caused disease, in the perspective of the germ theory. Just less than one fifth of the respondents identified malaria as a supernatural disease. Among these, some viewed it as "umbhulelo" and very few thought it was "ilumbo". There were also those who confessed that it was difficult to identify its causation, since neither

natural nor supernatural medicine cured it.

Almost all the respondents (95.7%) were well aware that malaria is caused by a mosquito. Likewise, 95.7% affirmed that they could differentiate malaria from other diseases. The totality of respondents said they could do so by characteristic symptoms of fever.

Diagnosis

Almost 90% of respondents reported that they could diagnose malaria and 95% reported that they could do so by its signs and symptoms. This is in line with the knowledge of the disease as naturally caused. An insignificant share of respondents admitted that they threw bones.

Treatment

Although most traditional healers interviewed affirmed to be able to differentiate malaria from other diseases and were able to diagnose it, only few of them (15.7%) said they could treat it. This met the view expressed by the community in the previous chapter. For traditional healers as well as for their patients, "curing" was "eradicating". In this perspective the temporary relief (thithibeza) provided by traditional healers was not perceived as a proper cure. That is why, three quarters of respondents admitted that they were unable to treat malaria. However, this did not mean that they did not try their treatment. The latter consisted in herbal mixtures for most respondents (82.9%).

Clients response to treatment

Most respondents were not positive about their clients response to treatment. Consistently with the above data about traditional healers' ability to treat, only 14% of respondents reported that their clients did not show any symptoms after treatment. Did this mean that they were cured? It was likely to be the "thithibeza" effect. More than half (51.4%) of respondents confessed that clients did not respond at all, while a significant share of 34.3% admitted that they did not know how the patients would respond. They apparently had never tried to treat malaria, since they knew that their medicines were of no effect on the patients.

For the highest percentage of respondents (60%), the most difficult symptoms to treat was fever, followed by dehydration (17.1%). This suggests that fever and dehydration were a great problem for traditional healers. As for the headache, it did not appear a challenging symptom. Most traditional healers reported that they could easily treat headaches with their "insizi".

It appeared that the prevailing malaria symptoms at the time of the study in 1996 were getting stronger and stronger. This pointed to the fact that traditional healers were aware of the issue of drug resistant malaria strains or the general increase in cases in 1996.

More than 76% of respondents reported to have kept their patients for a period varying from two to ten days for treatment before any referral was made trying their "thithibeza medicine" and excluding "isifo sabantu". This action is related to what was explained from literature in Chapter Four and suggests that traditional healers did represent a first-stop point of local health care provision. However, treatment was not the only factor which rendered traditional healers popular. Such other factors as psychological and emotional support, protection in case of patients from women-headed households, food and family environment found at the traditional healer's homestead, were to be taken into account. However, on a rather negative side, keeping patients for a long time could lead to some cases of death occurring at the traditional healer's place. Prompt referral is one of the key activities in malaria control and the results showed that the act of the healers discourages programmes put in place by the malaria team.

Referrals

Almost all respondents (98.6%) admitted that they made referrals, though it was after a certain period of time in 71.4% of cases. It was alleged that immediate referrals could not be made in some cases, because of factors like transport means and financial problems, inadequacy of roads, and so on. Only 27.1% of respondents reported that they made immediate referrals. However because of the above mentioned factors, patients referred to the clinic or hospital could sometimes simply shift from one traditional healer to another.

As for the type of patients referred, they were mostly those who did not respond to treatment, as reported by 50% of respondents. A share of 44.3% of respondents reported that they referred

very ill patients. The referrals were mostly mad to the Ndumu clinic (84.2%). Followed by Madeya (8.5%), Mbadleni (4.4%) and Spolipoli (1.4%). Almost all respondents (95.7%) reported that they reported to a clinic because it was nearer. Ndumu clinic was the only one functioning full at the time of the study, while others were open only once a month. A very high percentage of respondents (82.2%) reported that they had never referred their clients to hospital. The rest referred to the Ingwavuma Hospital. Distance with the associated exhausting effects on patients, as well as financial expenses seemed to be some of the prohibiting factors. Thus referrals to hospital were the last resort and consisted of very complicated cases, mostly with children and pregnant women.

As to how often traditional healers referred their patients, most of them (82.9%) admitted that it was difficult to tell. It depended on how ill the patient was, or whether or not he/she responded to treatment. There were those however, whose treatment lasted less than a day and who therefore, referred their patients daily. But they only constituted 14.4% of respondents.

Malaria as a problem in the area

The totality of respondents reported that malaria was a problem in the area. This was of no surprise since many other studies have identified Ingwavuma as the region with the highest malaria incidence in KwaZulu Natal and in South Africa in general. Ndumu, within Ingwavuma has the highest malaria prevalence rate (see Chapter two). Malaria was seen as a problem mainly because it was difficult to treat – even by doctors (71.4%) and because people died from it (25.7%).

Contrary to the findings of some studies (Ngxongo, 1993) most respondents (77.1%) in this study admitted that malaria had no seasonal pattern. It was rather seen as being prevalent throughout the year. This was supported by most of the community respondents who reported that they (or their relatives) suffered from malaria anytime of the year. However, a share of 15.7% of respondents agreed that malaria was a seasonal disease.

Collaboration

Almost the totality of respondents (98.6%) wished to see collaboration with the KwaZulu Natal Department of Health taking place. Most respondents (45.7%) favoured mutual referrals as the

main way of expressing the collaboration. This was followed by common ventures in the treatment of malaria (34.3%), meetings (14.3%) and malaria diagnosis (4.3%). Most respondents (71.4%) favoured policy as a means of encouraging collaboration. They supported the idea of a structure through which collaboration could take place. The structure would also be a forum through which important issues such as possible government subsidies would be debated. It was also hoped that mutual respect would also be cultivated through the forum. Registration was reported by 20% of respondents as a way to encourage collaboration. However, fears were expressed about payment of a registration fee which could be instituted. Also, some thought that registration might push them to "belong" and be under the modern medical system. Partnership and not incorporation seemed the best form of collaboration favoured by the respondents. In the same vein of collaboration, the totality of respondents were ready and keen about the idea of keeping records on their malaria cases. Almost the totality (97.1%) of respondents reported that they would keep the records in a register. However, their illiteracy was perceived as a hindrance and they expressed the wish to see adult education programmes taking place. As for the way the records would be transmitted to the Department of Health, most respondents (48.8%) said that they would give their records to the clinic. Others (31.4%) thought they would transmit their records through meetings with the community health workers, the camp personnel, the field workers and nurses. Some also (14.3%) said that their records would be given to field workers, not necessarily in meetings. In this case however, they noted that the field workers were not in sufficient numbers in the area.

With this summary ends the second part of this study's fieldwork findings. The next chapter formulates some conclusions and recommendations. This step is necessary in order to provide lines along which the research conducted could be transformed into action.

CHAPTER SEVEN
CONCLUSIONS AND RECOMMEDATIONS

7.1 Conclusions

This study found that traditional healers are an integral part of the health care system in Ndumu. This finding is further confirmed by the relatively high number of traditional healers in the area (± 600). Considering that at the time of this study, the community of Ndumu area (sections 2 – 10) consisted of a total population of 13 047 people, the traditional healer to the community ratio was 1:28 and the sample ratio was 1:3 (70 traditional healers to173 community members).

It is the view of traditional healers that malaria can be diagnosed, and in their case diagnosis was based on the signs and symptoms, but it is known that clinical diagnosis of malaria is difficult. Studies on malaria diagnosis in malaria endemic areas showed that malaria carriers often show no clinical symptoms and therefore fevers (hot and cold as expressed by both the community and traditional healers in Ndumu) cannot automatically be attributed to the presence of parasites (Tscheuschner,1995) This illustrates that there is a strong possibility that traditional healers associated all fevers to malaria.

The traditional healers further indicated that the symptoms of malaria can be treated but there is uncertainty in regard to effective cure. Definitive diagnosis and treatment of malaria is offered at both the malaria camps and clinics/hospitals. Malaria camps are well utilized by the community indicating the advantage of a good service and utilization may be enhanced by their proximity to the community. In view of the fact that traditional healers based the diagnosis on the symptoms which might not necessary be those of malaria infection, the idea of supplying them with malaria drugs is questionable.

It is also worth noting that some concerns were expressed by the community in regard to the supply of medicines by traditional healers, whether healers would be able to issue the right drug and treatment dose to the right patient and the possible abuse of drugs by some traditional healers

who would ask for payment for medicine provided free by the malaria control authority. Although traditional healers expressed their willingness to participate in malaria prevention strategies by keeping medicines, the Medicines and Related Substances Act , (Act. 101 of 1965) only allows medical professionals to keep and dispense scheduled medicines. In South Africa it would be unlawful to allow access to malaria curative drugs to traditional healers and as it would be dangerous to expose the community to potential drug poisoning due to misuse.

The study also found that there was no formal communication between the traditional healers and the malaria control camps/health professionals. Formal communication could be instituted towards promoting a good referral system for early definitive diagnosis and appropriate treatment to prevent resistance due to inappropriate treatment, clinical complications due to late presentation, serve to increase information and knowledge in regard to malaria diagnosis and treatment. Formal communication would minimize the gap between the two forms of health services, enhance respect, trust and acceptance in order to prevent "secrets" and be of benefit to both the health providers and the community.

This study also found that the community was enthusiastic and positive about possible collaboration between traditional healers and malaria control. It showed how important traditional healing appeared in their eyes. It also showed that they were well aware of the strengths of the modern system and the benefit collaboration would bring to the provision of health care in the community. This is an attitude to encourage and build on, collaborative interactions with the modern medicine counterpart. 86.7% of community respondents said it would like to see traditional healers working together with the malaria control team.

The community and traditional healers were well aware of the epidemicity of malaria in the area as well as the new strains of malaria. This knowledge could be used to change their perceptions and attitude with regard to their health seeking behaviour. This study identified that treatment started with home remedies and outside help was only sought when signs of the disease persisted. Such a behaviour is regarded as irresponsible and dangerous for high risk cases like pregnant mothers and babies and should be addressed through education.

7.2 Recommendations

7.2.1 Health Education

The findings of other studies indicated that Ndumu is one of the highest risk malaria areas in the country (Ngxongo,1993, Sharp and le Sueur, 1996, Sharp et al ., 1997). It's control deserves special mobilization of the community. As Clark (1996) argued, people would not attempt to involve themselves in preventive behaviours unless they possess a minimal level of knowledge and motivation, or believe that they were potentially at risk to health deviations or viewed the disruptions/deviations as threatening.

The demographic profile of respondents indicated a predominantly young and female population (71.1%). This was mainly due to the fact that adult males tend to move to cities for employment, the youth and women left behind are thus most likely to become victims of malaria epidemics. Special health education programmes should be targeted at these two groups in order to help them adopt self-protective behaviours against malaria and or appropriate health seeking behaviour. Their education is most likely to have a direct or indirect impact on the health status of the whole family, and of the children in particular (WHO, 1983). The study also found that 69.4% of malaria patients were taken to the clinic or hospital by their mothers. This is not an exception for Ndumu, as similar situations are reported from other rural societies in developing countries (WHO, 1993).

Health education programmes targeted at women should be related to building a safe traditional hut, with a door, and the door should not be detachable as it was seen and emphasis should be on the importance of the door (Chapter Two.), encourage them to cook indoors, have a hut which will solely be for cooking purposes. This will prevent exposure to mosquito bites. It is known that culture determines what to eat and what to wear. As is the case with Ndumu, women and children have the upper part of body barely covered. and this behaviour exposes them to mosquito bites. Education should be directed at motivating them to cover their bodies especially at dusk and dawn.

Pregnancy is a high risk condition with regards to malaria. Special attention should be given to women at the child bearing stage, beginning from the teenage and adolescence stages, and emphasizing the dangers of malaria and malaria treatment during pregnancy. They should be encouraged to report pregnancy at the Ante-Natal Clinic and more importantly when they have flu like symptoms during the malarias season. This would help health professionals to diagnose early and offer appropriate treatment and care.

Local schools should participate actively in malaria prevention strategies by informing pupils on the dangers of malaria, simple and cheap preventive measures against mosquito bites, the importance of reporting at the clinic or malaria control camp for early diagnosis and appropriate treatment. This approach will inculcate good health practices to the young population of Ingwavuma and possibly modify their way of life.

7.2.2 Referral to the second level of health care

98.2% of the community respondents reported to be staying at not less than an hours' walk from the traditional healers home and traditional healers admitted to having kept clients for trial and error type of treatment "thithibeza"(71.4%) which means that malaria was not regarded as an emergency and that they are an inescapable health service in the community. It is recommended that the Malaria control Co-ordinator should identify (lobby) all role players related to health promotion at Ndumu.

All role players should come out with a definition of the concept of referral, in order to understand the need for access by clients to other resources within the health care spectrum. The protocol defining who will be the first referral level and the criteria for referral should be put in place.

Traditional healers indicated that there are discrepancies related to the current process of referring patients – nurses look down upon their patients, and show disregard. Such issues should be addressed because traditional healers have a powerful interpersonal language: more pronounced than that of health professional. The aim will be to negotiate with traditional healers to " treat " and refer. Ambulance services should partake in such discussions for them to realize the

importance of an efficient Malaria control programme therefore improving the flow of patients from the clinic to the hospital.

7.2.3 Early Diagnosis and appropriate treatment of Malaria

This process is deeply carved in an efficient and effective referral system, transport, services, cultural practices and the attitude of health care givers/malaria control programme team and clinic nurses. It is the cornerstone for effective and efficient control of malaria. It could be part of health education programmes to encourage the community in seeking the clinic and hospital services, timeously. It came out clearly in Chapter four that traditional healers and the community see malaria as one of the common and usual "mkhuhlane syndrome" and do not regard it as an emergency.

In view of the fact that 71.4% of traditional healers kept their patients for a certain period of time before referring them elsewhere, whilst trying their medicines, more education about the different signs and symptoms of the disease especially the acute and complicated forms of malaria would help traditional healers in knowing better about the severity of the disease and hopefully lead them to timely referrals so that early definitive diagnosis is undertaken and appropriate treatment given.

Education should also be directed at informing them about drug resistant strains and that in such circumstances the drug may not be totally effective. Clinics at Ndumu are keeping stocks of the "easy to use" accurate malaria testing device in order to facilitate the process of malaria diagnosis and treatment.

7.2.4 Strengthening the malaria camp services

Distance was an important determining factor in people's preferences about local health services. Many stated that they walked to the Clinic or had to use taxis (54% walked). Patients had to use taxis as well to go to hospital and this was a major factor preventing them from attending (38.7%). This seemed to suggest that accessibility of services have to be accorded more support and strengthened.

It was clear that the malaria camp enjoyed the confidence of the local community with regard to malaria treatment. The camp was given credit for better treatment (34.1%) and better medicines (59.0%). The camp's malaria drugs, mainly Sulphadoxide Pyrimethamine, were apparently widely known and were used alone or mixed with local herbal medicines for greater effect. The clinic came as second choice for its ability to diagnose (27.2%). The capacity of the camps should be strengthened. It is clear from Figure 2.4, which displayed buffers showing 2km distances from malaria camps, that some sections are quite far away from malaria camps with special reference to sections 6 - 9. It is recommended that additional malaria control camps be established in order to increase access early definitive diagnosis and prompt treatment. They should have adequate supplies of efficient drugs. In-service education targeting the malaria camp officers should be conducted and should focus on ordering, storage and supply of malaria treatment at community level, that is, at malaria camps.

7.2.5 Malaria and socio-economic development

It was sadly realized that factors such as distance and affordability determine the community's choice about where to go for malaria treatment. Transport infrastructure is a problem at Ndumu. Even if it was existent, people have generally very low cash incomes and suffer from unemployment as indicated in Chapter Two. These conditions certainly have a great impact on people's health Besides, a healthy natural environment, adequate housing, e g. adequate screening of doors and windows may help in fighting the mosquito vector.

The most important and the effective way to prevent mosquito bites is to remain in doors between dusk and dawn (Health, 1997). This could be impossible in the case of some Ndumu community members especially those of the Zion Church because worshipping (**umlindelo**) occurs during the evening. This means that malaria is likely to be around for a long time and has to be addressed in a multisectoral approach.

7.2.6 Traditional healers as partners in health care provision

The study found that most traditional healers interviewed believed themselves to have knowledge (95.7%) of malaria as a naturally caused disease and the ability to differentiate it from other diseases. They also reported that they could diagnose malaria mostly by its signs and symptoms,

though their diagnosis was not definitive. They expressed their willingness to participate in the malaria prevention programme (98.6%) and the community (86.3%) supported the idea. Therefore any local malaria programme would miss out on an important partnership if traditional healers were not considered especially for utilization as first help points for early malaria diagnosis and prompt treatment at Ndumu as the community respondents expressed it, traditional healers should be included in debates about questions such as referral guidelines. Towards this end, lines of communication between all the players involved in the provision of health care as regard to malaria should be created.

Fever and dehydration were considered by most traditional healers as the most difficult malaria symptoms to treat. Because most healers admitted that their traditional remedies failed to provide relief to patients with fever and dehydration, it is vital to inform them about the complications of dehydration, i.e. cold, clammy and cyanotic (blue) skin and the need for urgent referral of all patients.

Actually referrals between all forms of local health care (home treatment, traditional healers, camps, clinic, hospital) was already happening. Traditional healers reported that these referrals were already happening and this therefore deserves support and encouragement by the malaria and clinic teams. However, traditional healers expressed the view that these referrals should be mutual and should not be a way to show off power by the modern medical personnel. This implies a mutual respect and recognition of each service as competent and independent bodies of health care provision. To this end mutual knowledge should be encouraged. Meetings were also expressed as a form of collaboration and they could be a forum of mutual discovery and knowledge. It is recommended that the venue for such meetings should be within the community and conducted section by section with the help of a malaria control programme team.

Traditional healers expressed their wish that collaborative initiatives should aim at the good of the patients. There were concerns that such initiatives may be a way through which hidden interest could compete. The idea of a formal structure, which would channel the programme, ensures that each one's rights are protected and set common guidelines and policy in order to streamline their activities, could be investigated by the parties involved. This could perhaps constitute one of the

first steps to ensure that the collaboration process develops in a manner beneficial to both parties and ultimately the community.

7.2.7 Information and education

All traditional healers interviewed reported that they would like to keep their patients records. Almost all said that they would like to do so by keeping a register. However, this was impossible for them as most were illiterate (95.7%). Given the importance of the records for referral and statistical purposes, traditional healers should be empowered in order to be able to keep patient records. To this end, adult education programmes, which may be organized with teachers from local schools could be a solution.

Literature shows that traditional healers depend on their memory to keep records. 95.7% of traditional healers reported that they could not speak read nor write English and 100% reported that they would like to keep a record. The malaria Control Coordinators should design simple forms to allow a healer to make a tick indicting whether the patient was young or old, male or female, pregnant or breast feeding and the signs and symptoms of the disease. The form could show pictures of the above categories, e.g. a pregnant or a breast feeding woman.

Such records could then be collected by the camp officers or submitted during community meetings, discussed as a way of sharing information and offering support and appreciation to the collectors. It also appeared that the malaria problem could not be dealt with successfully if considered only in health terms. The Department of Education in Ingwavuma could be contacted to include in the curriculum malaria as a subject with the aim of increasing access of information flow and knowledge in regard to malaria causes, signs and symptoms, treatment and available health resources. It may be recalled here that a teacher indicated the need to involve schools and the Department of Education as a whole in the process of malaria control in Ndumu.

7.2.8 Regional co-operation

It has been said that resistance in the malaria parasite has been increasing in the Ndumu area because of cross-border migration. The community, as well as traditional healers themselves were well aware that "malaria grew stronger and stronger" over the past years. Increased regional co-

operation through development projects such as the Lubombo Spatial Developments Initiative should reduce malaria in the northern areas due to initiation of vector programme in southern Mozambique. An ongoing monitoring and evaluation process has been put in place to determine whether regional Malaria control between South Africa, Mozambique and Swaziland will fulfill its purpose.

7.2.9 Further research areas

This study provided some insight in the sector of indigenous medicinal plants. Most traditional healers tended to say that they could not treat malaria but admitted that they nevertheless received patients and tried to provide what they called "thithibeza", i.e. a temporary relief. Local herbal medicines used towards the treatment of fever and headaches for instance, should be studied in joint ventures with the Health Department and the research institutions. New varieties found could be added to a national database, which could be useful for other traditional healers in other areas, as well as to researchers nationwide. The isolation of curative properties of indigenous plants if found could also be utilized for the development of new drugs and projects in this regard are underway and funded by the Department of Arts and Culture Science and Technology .

Some traditional healers reported that they mixed drugs such as chloroquine with their traditional herbal medicines. It may be recalled here that the community reported to have used Vick Vapor Rub, adding it to boiling water and "gquma" (steam inhalation). After this, Grandpa and Compral pain tablets were taken and the treatment was said to be very effective. Joint research ventures should determine possible advantages and risks of this mixture for patients.

The study documented that the community and traditional healers would like to see collaboration taking place and encouraged between traditional healers and modern medicine for the diagnosis and treatment of malaria. As indicated in the literature, contrasting views exist about the issue". Thus the findings of this study call for the other side of the story to be told To this end, there is a need for further research in order **to investigate attitudes, and perceptions of nurses, doctors and malaria control team** (field workers and Medical Research malaria control team towards collaboration and joint ventures with traditional healers with regard to malaria diagnosis and treatment.

Long before western type medicine was introduced in developing countries, a variety of indigenous healers provided relief to physical, mental and social ailments and they still do as in the case of this study. It therefore appears that community health services have to be comprehensive and include traditional healing as an important component to augment first line health care services in regard to malaria control at Ndumu in Ingwavuma. Such a process has not yet formerly started.

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