

CHAPTER 4

DATA ANALYSIS AND INTERPRETATION

4.1 INTRODUCTION

In this chapter, the data analysis and the interpretation of data are discussed. Data were gathered by means of a questionnaire, information lists, observations, field notes and document analysis. Questionnaires obtained data from respondents, and the information lists were completed by the researcher. The questionnaire was divided into five parts. Biographical data and data about the accessibility of primary health care in Molemole municipality (including geographical, financial, functional and cultural accessibility) were gathered. Data about staffing levels, types of services provided by clinics, referral systems, support systems for nurses (including facilities and equipment) and treatment available for minor ailments were recorded onto the information lists. Observations made by the researcher and information obtained during informal discussions with staff members were documented as field notes.

4.2 OVERVIEW OF THE INFRASTRUCTURE AND SURROUNDINGS

The overview of the infrastructure and the surroundings of the clinics is based on observations and document analysis (e.g. the analysis of maps).

Molemole municipality is approximately 50km from Polokwane City, along the road towards Makhado (Louis Trichardt). The clinics are situated just south of the Tropic of Capricorn. Summer in this rural area is hot, but the winters are cool to cold, especially at night.

Transport networks in this area consist mainly of gravel roads and smaller dusty roads. Community members usually use buses and taxis as means of transport. Taxis are regular and frequent but relatively expensive. Many people in the impoverished rural communities cannot afford them. Bus services are cheaper but they provide transport only at peak times in the mornings and evenings. The villages Makgato, Phasha and Eisleben experience transport problems due to infrequent or limited bus services. Very few people in the Molemole municipality own vehicles (Department of Health 1999:7).

In general, the area is very dry and clinic surroundings are unclean. The few scanty trees in the vicinity of the clinics are used as shade by clients. There are no fruit or vegetable gardens at the clinics as the clinics experience problems with water supply.

4.3 THE CLINICS OF MOLEMOLE MUNICIPALITY

Molemole municipality has four clinics, one in each of the villages Matoks, Ramokgopa, Eisleben and Makgato. Eisleben and Makgato are open 24 hours, while Matoks and Ramokgopa operate only during office hours (07:00-16:00). A mobile clinic is in operation from Monday to Friday, although health services are only available for clients at various service points from Monday to Thursday. Fridays are scheduled for administrative work.

4.3.1 PROBLEMS EXPERIENCED BY MOBILE CLINIC AND CLIENTS

During the study, the following problems were experienced by the mobile clinic staff and clients:

- The mobile clinic experienced staff shortages due to the involvement of professional nurses in activities such as the Khomanani project and training sessions for TB supporters, and due to personnel who were on leave or took time off.

- The observation was made by the researcher that mainly mental health services and chronic treatment issuing were provided at mobile service points. The unavailability of services was observed on the first day of data collection when staff arrived at the service point at 12:30. Clients who have been waiting since morning were sent home with the promise that services would be available the next morning.
- Infrequent visits/hours by the mobile clinic lead to long waiting hours for clients. On the second day of data collection, clients complained of hunger. They have been waiting for more than four hours for the mobile team to arrive.
- Clients did not wait at the service point as the mobile clinic did not keep to its schedule. On the third day of data collection, the mobile clinic did not manage to arrive at the service point due to a shortage of staff, and clients interviewed said they stayed at home as the mobile clinic did not keep to the official scheduled times. These clients only go to the service point once the mobile clinic has arrived. Respondents interviewed needed treatment for chronic illnesses.
- Because of long periods of non-appearance by the mobile clinic, clients had started to travel to the district hospital to receive medication for chronic illnesses. On the last day of data collection, the researcher visited the service point at the official scheduled time. The mobile clinic did not arrive. Three respondents, who were interviewed at their homes, mentioned that the mobile clinic had visited the service point six months ago. These clients normally travel to the district hospital if they have a health problem or to collect medication for chronic illnesses.
- The relationship between nurses and clients was unsatisfactory. Clients pointed out that the relationship between nurses and clients was harmed by the infrequency of the visits of the mobile clinic, nurses who seemed to be in a

hurry, and the unavailability of necessary equipment such as sphygmomanometers (for measuring blood pressure) and scales for weighing babies. According to clients, the reason given to them by nurses for the absence of equipment was the forgetfulness of staff.

The researcher consulted with staff at the mobile clinic about the above problems. The comments of clients were not denied and the staff promised to improve the quality of service. Reasons for the lack of basic equipment were not given.

4.3.2 SERVICES PROVIDED BY CLINICS

The four clinics and the mobile clinic (in no specific order) are numbered according to the first five letters of the alphabet, and types of services provided by these clinics are tabled below.

TABLE 4.1: TYPES OF SERVICES PROVIDED BY CLINICS

CLINIC	A	B	C	D	E
Treatment of minor ailments	Yes	Yes	Yes	Yes	Yes
Antenatal care	Yes	Yes	Yes	Yes	No
Deliveries	No	Yes	Yes	No	No
Postnatal care	Yes	Yes	Yes	Yes	No
Child health clinic	Yes	Yes	Yes	Yes	Yes
Family planning	Yes	Yes	Yes	Yes	Yes
Treatment of chronic illnesses	Yes	Yes	Yes	Yes	Yes
School health services	No	No	No	No	Yes
Home visits	Yes	Yes	Yes	Yes	Yes
HIV/AIDS counselling	Yes	Yes	Yes	Yes	No
Health education	Yes	Yes	Yes	Yes	Yes

Services were not necessarily rendered according to the needs of communities. For example, Clinics A, D and E did not do deliveries or did not assist in childbirth. (Refer to Table 4.1.) Clients were referred to the district hospital. Clinic A did not do deliveries as the staff were still adjusting to the new clinic and were unavailable after hours or during weekends. Deliveries were not done at Clinic D as the clinic was still under construction. Clinics B and C did deliveries at the clinics. Clinic C was doing deliveries despite the fact that water had to be transported to the clinic from the district hospital. (Refer to par. 2.2.4). At Clinic B, babies were delivered in a small rondavel behind the clinic. The fact that the whole range of services was not provided by all clinics contributed towards inaccessibility of basic primary healthcare.

4.3.3 MEDICATION, SUPPLIES AND EQUIPMENT

The EDL was used to access the availability of medications and supplies at clinics. The criterion for availability, according to clinic staff, was whether the clinic had sufficient supplies to meet normal needs until the next order of medications and supplies would arrive at the clinic.

Clinics A and B had sufficient medication and supplies throughout the data collection period. Clinic C lacked medicines for conditions of the alimentary tract and metabolism, genitourinary system and sex hormone. General anti-infectives for systemic use, and antineoplastic and immunomodulating agents such as measles vaccine were not sufficient, as was treatment related to the musculoskeletal system and the central nervous system. Delayed delivery of ordered supplies was given as the reason for insufficient stock. Clinic D needed supplies for the treatment of dermatological conditions. Clinic E had sufficient supplies except for treatment relating to sensory organs. According to staff at this clinic, the supplying dispensary could not issue the treatment without the names of the people in the community who were receiving the treatment. Provision of these names was the responsibility of the clinic staff.

In summary, it was clear that although some delays in delivery of supplies to clinics were experienced, sufficient supplies depended mainly on the timeous ordering and accurate information by clinic staff.

The researcher further observed that, even though appropriate treatment was available in clinics, clients were denied treatment due to managerial policies and clinic procedures. These unacceptable practices adversely affect the accessibility of comprehensive primary health care and denied clients a one-stop service.

The list of basic equipment for primary health care appears in Annexure G. All clinics included in this study had the basic equipment needed for the delivery of primary health care. A concern, however, was the lack of effective refrigeration, suction and oxygen in many of the clinics.

4.3.4 FACILITIES AVAILABLE AT CLINICS

At some clinics in Molemole municipality, conditions are far from ideal.

- Clinic A has been operating in new buildings since April 2003, and the new clinic has sufficient consulting rooms.
- Clinic B still operates in an old, small building and needs more consulting and counselling rooms.
- Clinic C is a huge clinic but lacks a nurses' residence. Some of the consulting rooms are used for this purpose. This clinic also lacks a safe water supply, sanitation and an effective communication system. Nurses have to use a public cardphone to communicate with doctors or referral hospitals.
- Clinic D uses community offices as a clinic while the clinic is under construction.
- Clinic E operates at various service points in the community. The mobile clinic has an office (which also functions as a store room) in the district hospital at its disposal.

Most of the clinics do not operate under optimal conditions. This may result in a demoralised staff component. The lack of appropriate facilities to render quality services may contribute to unacceptable levels of service delivery.

4.3.5 REFERRAL SYSTEM

Clinics included in this study refer clients to the district hospital that is 9-18km away. The district hospital ambulance is called for all emergency and maternity cases, but other patients referred have to make use of own or public transport.

According to the patients' rights charter, every patient has the right to be referred for a second opinion (Department of Health 2001:11). Most clinics did not experience problems as far as referrals were concerned. The exception was Clinic C. Nurses had to use a public cardphone to summon an ambulance.

4.3.6 STAFF AND STAFFING LEVELS

Primary healthcare services need adequate staff and facilities to function effectively. However, staffing in rural health facilities seemed to be problematic. (Refer to par. 2.9.2.) The staff structures of the various clinics as approved by the Department of Health and the number of positions actually filled are presented in Table 4.2 on page 71.

Similar staff structures apply to four of the five clinics. However, the staff structure approved for the mobile clinic indicates more nursing personnel. No general assistants or guards are included in the mobile staff structure as these positions are not needed. With regard to the category professional nurses, when the number of positions filled was compared to the number approved, it became evident that four of the five clinics were understaffed. The situation regarding enrolled nurses was even worse. Not one of the positions approved by the Department of Health has been filled. The implication is that auxiliary nurses do the duties of enrolled nurses.

TABLE 4.2: APPROVED STAFF STRUCTURES VERSUS POSITIONS FILLED

CLINICS	A		B		C		D		E	
	Appr	filled	Appr	filled	Appr	filled	Appr	filled	Appr	filled
Positions (approved/ filled)										
Professional nurses	5	3	5	3	5	5	5	3	7	5
Enrolled nurses	2	0	2	0	2	0	2	0	4	0
Auxiliary nurses	2	2	2	2	2	2	2	2	4	2
General assistants	3	2	3	2	3	2	3	2	0	0
Security guards	2	2	2	2	2	2	2	2	0	0
Total	14	9	14	9	14	11	14	9	15	7

Compared to other clinics, Clinics A and B were very active. The reason for this could be the larger number of communities that is serviced by these clinics. The large number of clients relates directly to the shortage of staff experienced in Clinics A and B. The lack of accommodation at Clinic B contributed to the staff shortage. Two professional nurses staying in the vicinity were responsible for service delivery.

The workload at Clinic D was such that the clinic managed well with three professional nurses. However, Clinics A and B needed more staff. At Clinic E, the available staff seemed to be sufficient. It was the perception of thirty-two (32) respondents (21.5%) that more nursing personnel were needed at the clinics. This perception correlated with observations made by the researcher as well as the number of staff that was available on days of data collection, as listed in Table 4.3 on page 72.

TABLE 4.3: NUMBER OF STAFF ON DUTY DURING WEEK OF DATA COLLECTION

CLINIC	A	B	C	D	E
Professional nurses	3	2	4	3	4
Enrolled nurses	0	0	0	0	0
Auxiliary nurses	2	1	2	2	1
General assistants	2	2	2	2	0
Security guards	1	1	1	1	0

4.3.7 SUPPORT SYSTEM FOR NURSES

Staff at clinics are supported mainly by their supervisors who visited the clinics once a week. Staff at the clinics meet once a month to air their views and to consult with their supervisors. Community health committees also support staff at the clinics. Professional support by other members of the multidisciplinary team is limited.

4.4 OTHER SERVICES AVAILABLE IN THE MOLEMOLE MUNICIPALITY

Health consumers in Molemole are aware of other services that provide for the needs of community members. These services could be used by the community as an alternative to health services provided by the clinic or could complement primary healthcare services. They include voluntary care groups, home-based care services, direct observers/supporters of the treatment of people with TB (DOTS programme), traditional healers, religious groups and traditional midwives. The data in Figure 4.1 on page 73 illustrate the number of participants who knew about these services. If primary healthcare services were inaccessible, the community would make use of these services.

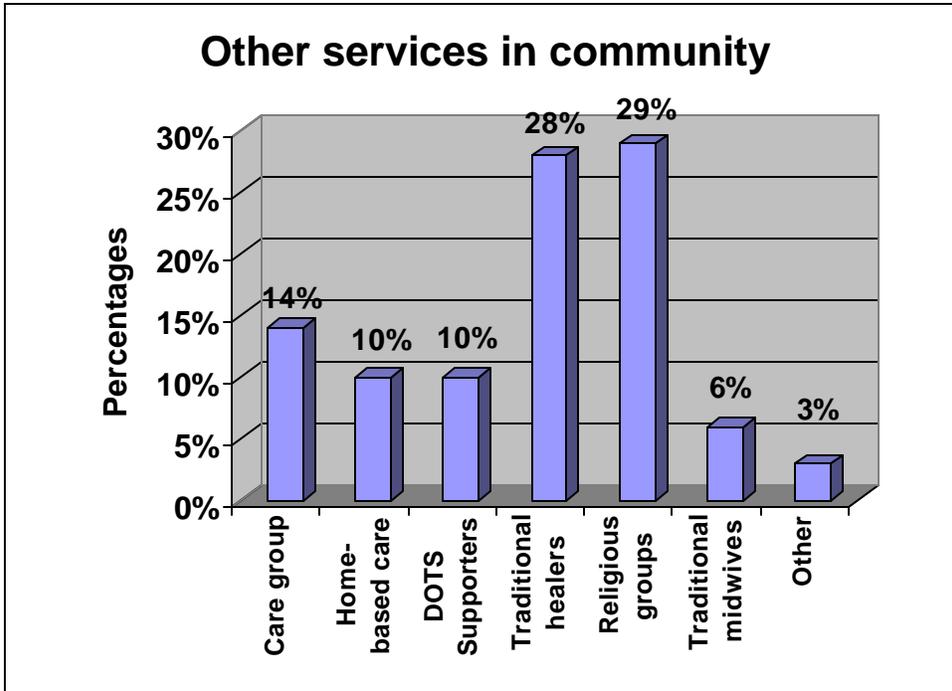


FIGURE 4.1: COLUMN GRAPH ILLUSTRATING OTHER SERVICES THAT PROVIDE FOR THE NEEDS OF COMMUNITIES IN MOLEMOLE

Based on Figure 4.1, it seems that services and support provided by traditional healers and religious groups are known best in the community.

4.5 POPULATION OF MOLEMOLE MUNICIPALITY

4.5.1 MIGRATORY WORKERS AND FEMALE DOMINATION

Molemole municipality is situated in a rural area. Job opportunities are scarce and most of the men migrate to urban areas in an attempt to gain some income. The study population was therefore dominated by women.

4.5.2 CULTURAL BACKGROUND

The population is impoverished due to the high level of unemployment. Undernourished children receive a protein, vitamin and mineral (PVM) supplement from the clinics. Children grants are used mainly for food.

Some people utilise the services of traditional healers. Others have strong religious beliefs. (Refer to par. 4.4.)

4.6 STUDY POPULATION

The study population consisted of one hundred and thirty-four (134) clients who visited one of five clinics included in the study during the week of data collection.

4.6.1 CLIENTS PER CLINIC

Clinics A and B operated from Monday to Friday. On each of these days (during the data collection period), five clients per clinic were involved in the survey. A total of fifty (50) respondents were therefore included in the study sample. Clinics C and D operated seven days a week. Thirty-three (33) and thirty-five (35) clients from Clinics C and D respectively completed questionnaires. The mobile clinic (Clinic E) delivered services from Monday to Thursday. Each service point should be visited once a month. Referring to Clinic C, a total of sixteen respondents was interviewed by the researcher.

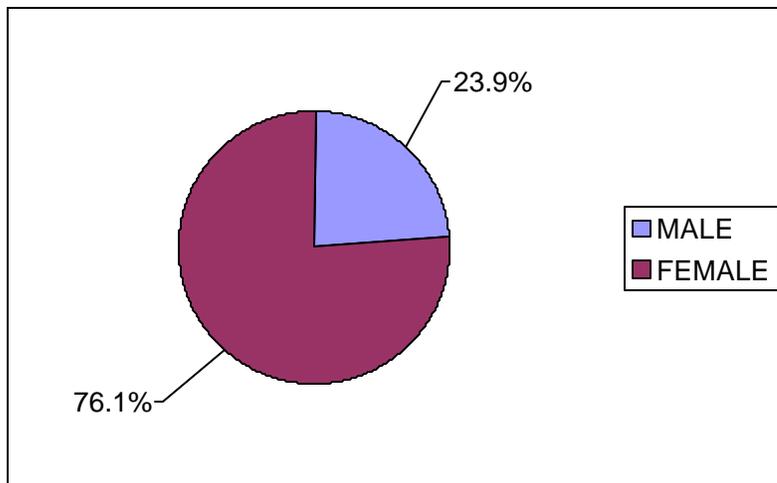
These data are set out in Table 4.4 on page 75.

TABLE 4.4: THE NUMBER OF CLIENTS SURVEYED BY THE RESEARCHER (n=134)

CLINIC	NUMBER OF RESPONDENTS SERVICED BY CLINIC (n = 134)	PERCENTAGE OF RESPONDENTS SERVICED BY CLINIC
A	25	18,7
B	25	18,7
C	33	24,6
D	35	26,1
E	16	11,9
TOTAL	134	100,0

4.6.2 GENDER OF RESPONDENTS

The researcher interviewed one hundred and two (102) females and thirty-two (32) males, representing 76,1% and 23,9% of the study sample respectively. The dominantly female sample group can be attributed to the fact that many of the male population work in urban areas. (Refer to par. 4.5.1). The gender of the sample group is illustrated in Figure 4.2.

**FIGURE 4.2: PIE CHART ILLUSTRATING GENDER OF RESPONDENTS (n=134)**

4.6.3 AGE DISTRIBUTION OF RESPONDENTS

With reference to age groups, respondents were more or less equally distributed. Exceptions were the age groups 41-50 years (8,2%) and 71-80 years (3%).

TABLE 4.5: AGE DISTRIBUTION OF RESPONDENTS (n=134)

AGE GROUPS	NUMBER OF RESPONDENTS	PERCENTAGE OF RESPONDENTS
Less than 20	28	20,9
21-30	25	18,7
31-40	23	17,2
41-50	11	8,2
51-60	26	19,4
61-70	17	12,7
71-80	4	3,0
TOTAL	134	100,1

NOTE: ALL PERCENTAGES ARE ROUNDED OFF TO THE FIRST DECIMAL, THUS THE TOTAL MAY BE 99,9%, 100,0% OR 100,1%.

4.7 HEALTH NEEDS VERSUS SERVICES RENDERED

The researcher attempted to determine whether clinics rendered services that met the health needs of clients.

4.7.1 HEALTH NEEDS OF CLIENTS

During the week of data collection, forty per cent (40%) of the respondents visited the clinics to be treated for chronic illnesses. Thirty-two per cent (32%) of the respondents were treated for minor ailments while nine per cent (9%) made use of child health services. Seven per cent of the respondents needed the family planning service. Clients' reasons for visiting clinics are illustrated in Figure 4.3 on page 77.

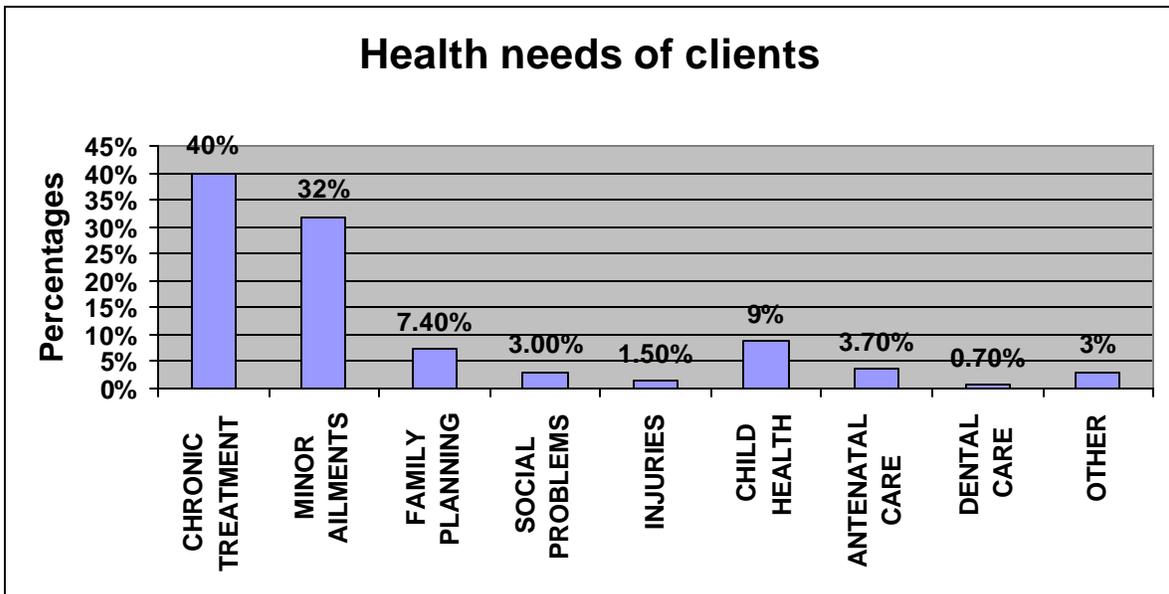


FIGURE 4.3: COLUMN GRAPH ILLUSTRATING CLIENTS' REASONS FOR VISITING CLINICS DURING WEEK OF DATA COLLECTION (n=134)

4.7.2 ACCEPTABILITY OF SERVICES

The majority of respondents (84,3%) found services rendered by the clinics satisfactory. Refer to Figure 4.4.

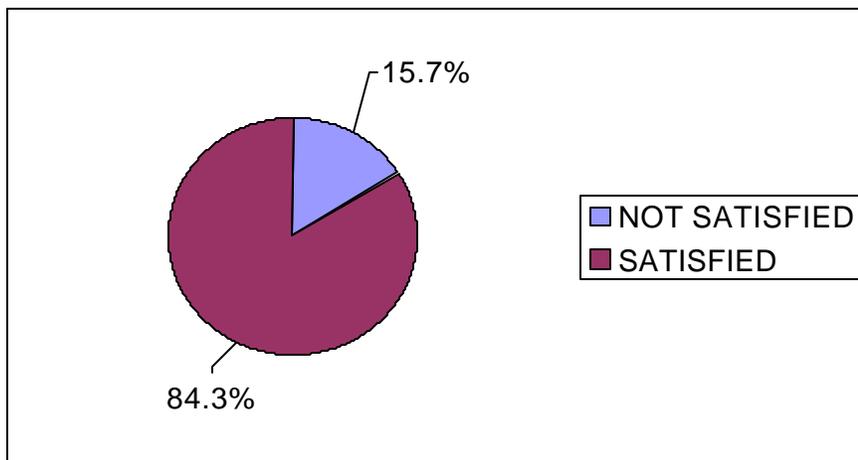


FIGURE 4.4: PIE CHART ILLUSTRATING THE PERCENTAGE OF RESPONDENTS WHO WAS SATISFIED/DISSATISFIED WITH SERVICES RENDERED BY CLINICS (n=134)

In an open-ended question, respondents were asked to give reasons for their satisfaction/dissatisfaction with service delivery at clinics. One hundred and twenty-one (121) respondents gave reasons for being satisfied with services, while twenty-two (22) respondents motivated dissatisfaction with services. Some indicated both satisfaction and dissatisfaction with services. Refer to Table 4.6 and Table 4.7 below.

TABLE 4.6: REASONS FOR BEING SATISFIED WITH SERVICES (n=121)

MAIN REASON FOR BEING SATISFIED WITH SERVICE	NUMBER OF RESPONDENTS	PERCENTAGE (%) OF RESPONDENTS
Satisfied with medication	47	38.8
Good assistance	26	21.5
Improved conditions	21	17.4
Positive attitude of nurses	8	6.6
Good communication	18	14.9
Mobile comes as scheduled	1	0.8
Total	121	100,0

TABLE 4.7: REASONS FOR BEING DISSATISFIED WITH SERVICES (n=22)

MAIN REASON FOR BEING DISSATISFIED WITH SERVICE	NUMBER OF RESPONDENTS	PERCENTAGE (%) OF RESPONDENTS
Nurses' attitudes	7	31.8
Mobile does not come as scheduled	3	13.6
No medication given	6	27.3
Dissatisfied with medication given	5	22.7
Long lunch breaks of nurses	1	4.5
Total	22	99,9

NOTE: ALL PERCENTAGES ARE ROUNDED OFF TO THE FIRST DECIMAL, THUS THE TOTAL MAY BE 99,9%, 100,0% OR 100,1%.

Based on findings by Booyens (2000), Marsh (1999), Weiler and Pigg (2000), and others, it can be concluded that reasons of 15,7% of respondents who seemed not to be satisfied with services could be related to inaccessibility of primary healthcare services in the area. Data summarised in Table 4.7 confirmed that the negative attitude of nurses, unacceptable operational hours, unavailability of services (especially in the case of the mobile clinic) and unavailability of medication contributed largely to client dissatisfaction.

4.8 ACCESSIBILITY OF PRIMARY HEALTH CARE

4.8.1 GEOGRAPHICAL ACCESSIBILITY

Geographical accessibility relates to distance, travelling time and means of transport. (Refer to par. 2.9.2.) These aspects should be acceptable to the community. Most respondents utilised the clinic closest to their place of residence, and for most it was within walking distance. Refer to Table 4.8 below and Figure 4.5 on p.80. In one incident, the respondent used a clinic in another area due to the fact that the clinic closest to him/her closed for the weekend. This client had to take a taxi to reach a clinic that was operational. It is evident that there is a direct relation between geographical accessibility, operational hours of clinics and types of services rendered.

TABLE 4.8: TIME SPENT TRAVELLING TO NEAREST CLINIC (n=134)

TIME SPENT TRAVELLING	NUMBER OF RESPONDENTS	PERCENTAGE OF RESPONDENTS
Less than one hour	92	68,7
One to two hours	23	17,2
More than two hours	19	14,2
TOTAL	134	100,1

NOTE: ALL PERCENTAGES ARE ROUNDED OFF TO THE FIRST DECIMAL, THUS THE TOTAL MAY BE 99,9%, 100,0% OR 100,1%.

The types of transport used by respondents confirmed that clinics were within walking distance, that buses and taxis were the main means of transport and that only a small percentage of community members owned vehicles. These factors impact on the geographical accessibility of clinics.

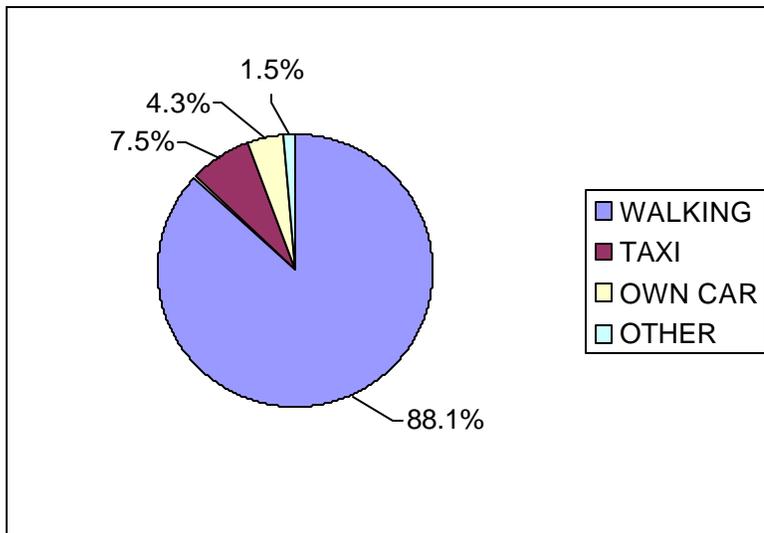


FIGURE 4.5: PIE CHART ILLUSTRATING TYPES OF TRANSPORT USED BY RESPONDENTS (n=134)

4.8.2 FINANCIAL ACCESSIBILITY

All respondents indicated that services were free of charge. This finding is in line with current health policies discussed in Chapter 2. Indirect costs (such as travel expenses) should however be considered when financial accessibility is discussed. Nine per cent (9%) of respondents indicated that they paid up to R10 for transport to the clinic. For communities on low incomes, even R10 could be sufficient to keep people from receiving health care. When assessed in relation to Figure 4.3, a lack of money could be seen as contributing to the fact that except for antenatal care, very few respondents indicated any preventative services as reason for their visit to the clinic. Respondents' travel expenses are illustrated in Figure 4.6 on page 81.

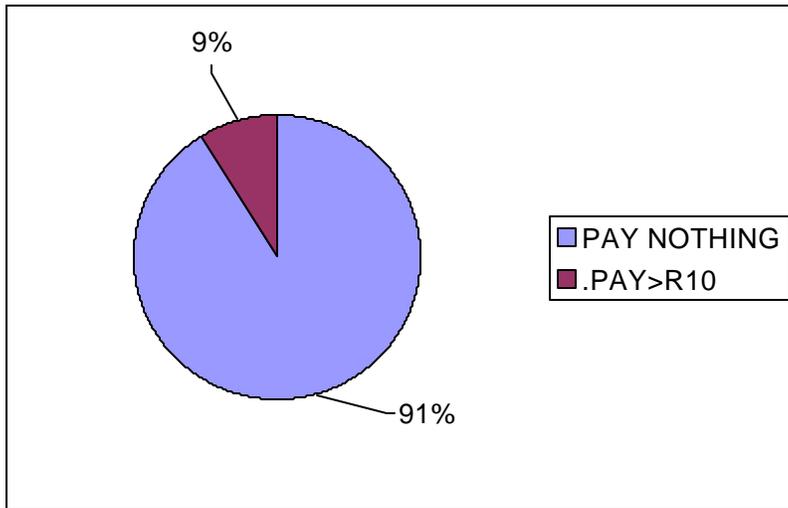


FIGURE 4.6: PIE CHART ILLUSTRATING RESPONDENTS' TRAVEL EXPENSES (n=134)

4.8.3 FUNCTIONAL ACCESSIBILITY

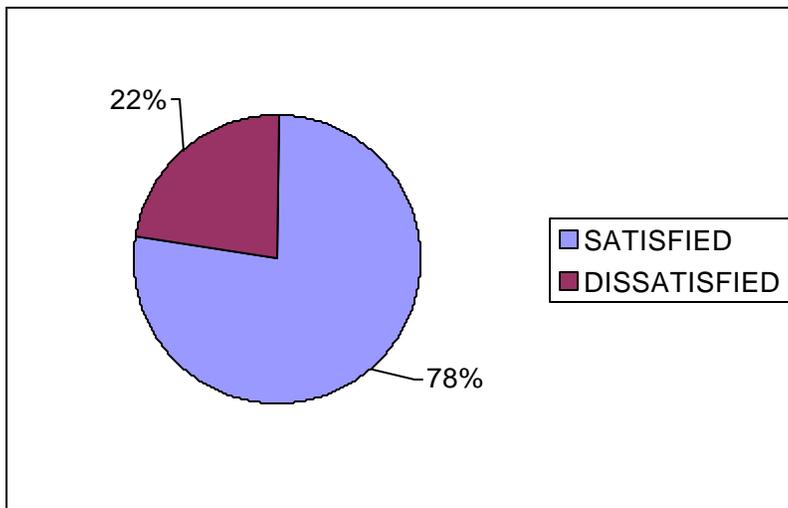


FIGURE 4.7: PIE CHART ILLUSTRATING PERCENTAGE OF RESPONDENTS THAT WAS SATISFIED/DISSATISFIED WITH OPERATIONAL HOURS OF CLINICS (n=134)

Functional accessibility relates to the nature of services and operational hours. Twenty-two per cent (22%) of respondents indicated that the operational hours of the clinic nearest to them were inconvenient. (Refer to Figure 4.7.) The fact that some clinics did not function over weekends, staff shortages experienced by clinics that were open during weekends and mobile clinics that did not arrive at scheduled service points contributed to a significant level of functional inaccessibility.

It also became apparent that clients and community members were seldomly consulted about or involved in decisions regarding operational hours. Figure 4.8 below has reference.

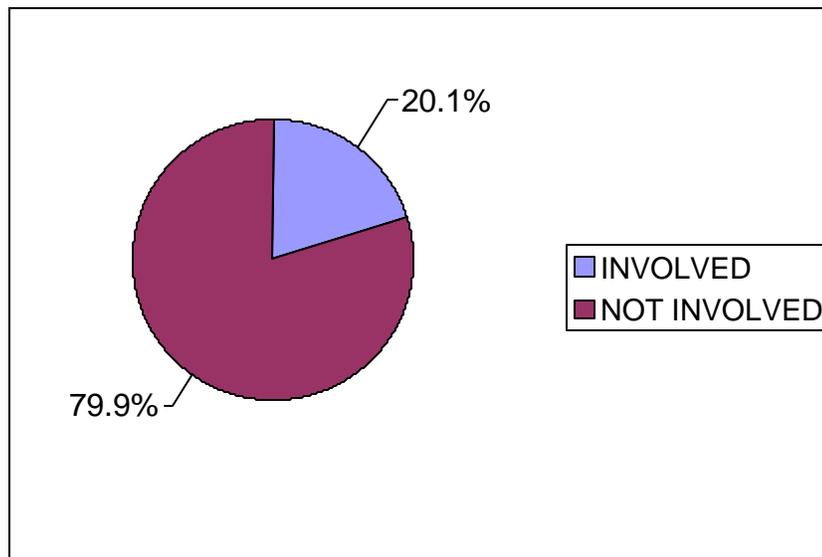


FIGURE 4.8: PIE CHART ILLUSTRATING COMMUNITY INVOLVEMENT IN DECISION-MAKING ON OPERATIONAL HOURS OF CLINICS (n=134)

However, community members were aware of the meetings held between the healthcare services and community leaders who were elected by the communities to represent them. (Refer to par. 2.2.4.) The majority of respondents expressed a desire to be consulted about operational hours and other health matters. This response is illustrated in Figure 4.9 on page 83.

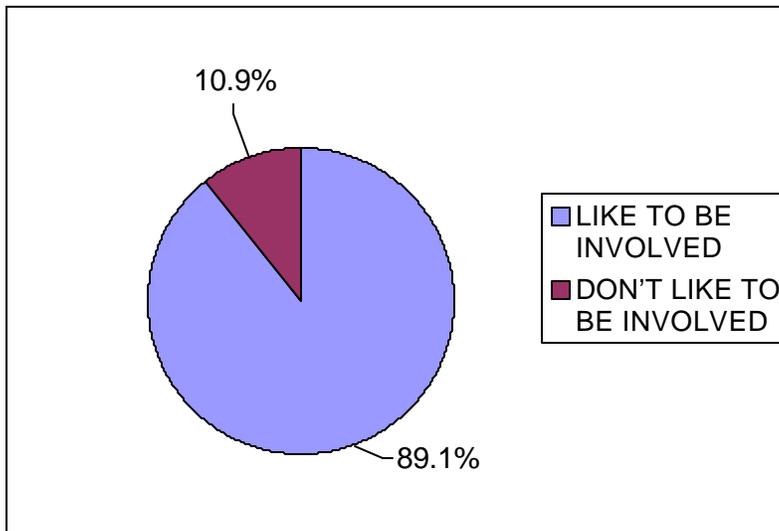


FIGURE 4.9: PIE CHART ILLUSTRATING PREFERENCE OF RESPONDENTS TO BE CONSULTED ABOUT OPERATIONAL HOURS OF CLINICS AND OTHER HEALTH MATTERS (n=134)

4.8.4 CULTURAL ACCESSIBILITY

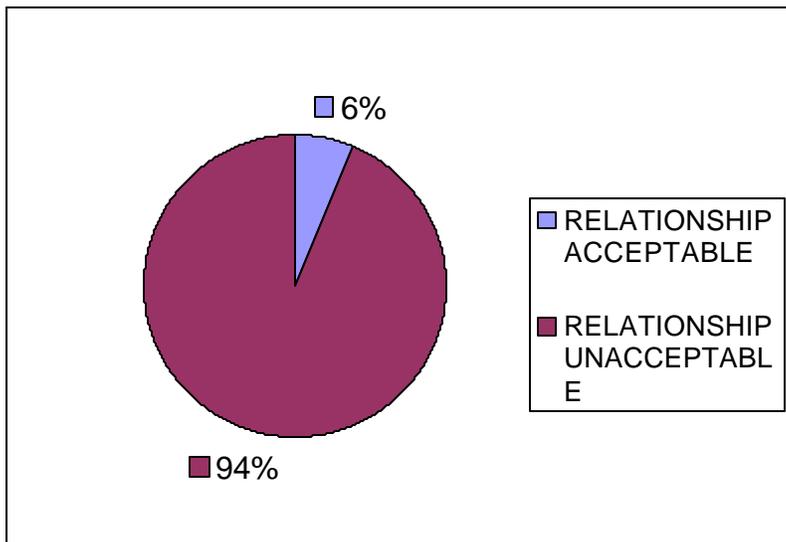


FIGURE 4.10: PIE CHART ILLUSTRATING ACCEPTABILITY OF RELATIONSHIP BETWEEN NURSES AND COMMUNITY MEMBERS (n=134)

It is apparent that the relationship between nurses and clients was generally acceptable. Eight (6%) respondents indicated that nurses did not show respect for clients. This response is illustrated in Figure 4.10 on page 83. According to the respondents, the relationship between nurses and clients should be based on equal treatment of clients, respect for the elderly and community leaders, and exchange of greetings.

According to the White Paper on the Transformation of Public Service Delivery, one of the principles of Batho Pele is ensuring courtesy (Department of Public Services and Administration 1997:8).

In an attempt to determine whether clients would continue to use clinics despite matters that they found unsatisfactory, it became clear that they did not really have alternatives for specifically curative care. One respondent verbalised it this way: “Where else can we go?”.

The majority of respondents regarded services provided by clinics as culturally acceptable. Figure 4.11 refers.

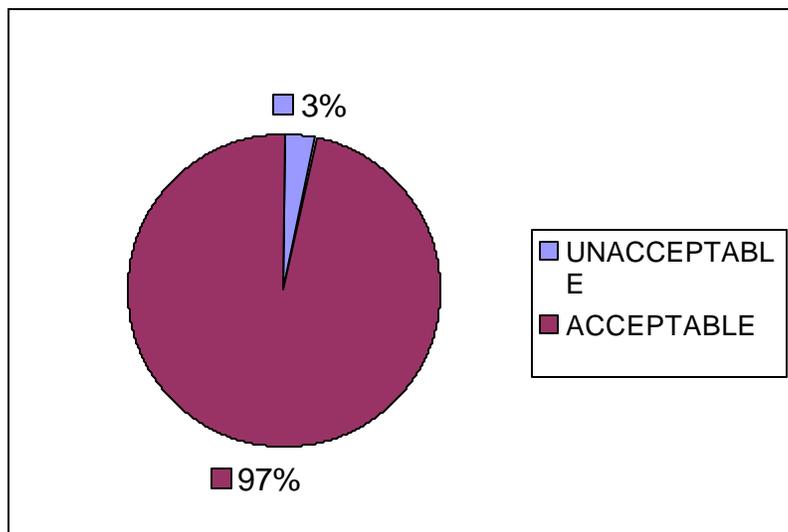


FIGURE 4.11: PIE CHART ILLUSTRATING CULTURAL ACCEPTABILITY OF SERVICES PROVIDED AT CLINICS (n=134)

One hundred and thirty (130) respondents (97%) said they found services provided at clinics culturally acceptable but four respondents (3%) did not agree. They regarded family planning and the use of condoms culturally unacceptable. One respondent stated that traditional healers had knowledge about children's diseases that were unknown to nurses.

4.9 CONCLUSION

In this chapter, data were analysed and interpreted. Descriptive statistics were used. Data obtained from questionnaires, information lists, field notes and observations were analysed and, where applicable, presented in tables or illustrated by means of column graphs or pie charts.

Information was obtained regarding clinics and their surroundings, staff levels, services provided, clients' reasons for visiting clinics, and issues relating to geographical, financial, functional and cultural accessibility.

Findings corresponded with literature findings.